19.3 MAJOR AMENDMENT PACKAGE (04/20): MEDIUM DENSITY RESIDENTIAL ZONE CODE REVIEW

Objective Reference:

Authorising Officer: **Louise Rusan, General Manager Community & Customer Services**

Responsible Officer: **David Jeanes, Group Manager City Planning & Assessment**

Report Author: **Michael Beekhuyzen, Principal Strategic Planner**

Attachments:

1. **Major Amendment Package (04/20): Medium Density Residential Zone Code Review (Parts 1 and 2)** ⇩
2. **Development Feasibility Assessment (CDM Smith)** ⇩
3. **Scenario Testing and Review of Amended Medium Density Residential Zone Code (Urbis)** ⇩
4. **Draft Planning Scheme Policy 7: Multiple Dwelling Design Guide** ⇩

The Council is satisfied that, pursuant to Section 254J(3) of the *Local Government Regulation 2012*, the information to be received, discussed or considered in relation to this agenda item is:

(e) legal advice obtained by the local government or legal proceedings involving the local government including, for example, legal proceedings that may be taken by or against the local government.

PURPOSE

For Council to consider the contents of the City Plan Major Amendment Package (04/20): Medium density residential code review.

BACKGROUND

At the General Meeting on 13 May 2020 Council resolved to:

1. Commence a major amendment (Medium Density Review) to the City Plan that reflects the findings and recommendations of the medium density residential code review, in accordance with Part 4, Clause 16.1 of the *Minister's Guideline and Rules* under the Planning Act 2016.
2. Endorse the recommendations, as outlined in Attachment 2, to inform the proposed major amendment of City Plan.
3. Ensure the major amendment is supported by further scenario testing and economic viability assessment.
4. Maintain the report and attachments as confidential until such time that the amendment package is released for public consultation, subject to Council and Ministerial approval.

ISSUES

Major Amendment Package (04/20): Medium density residential zone code review

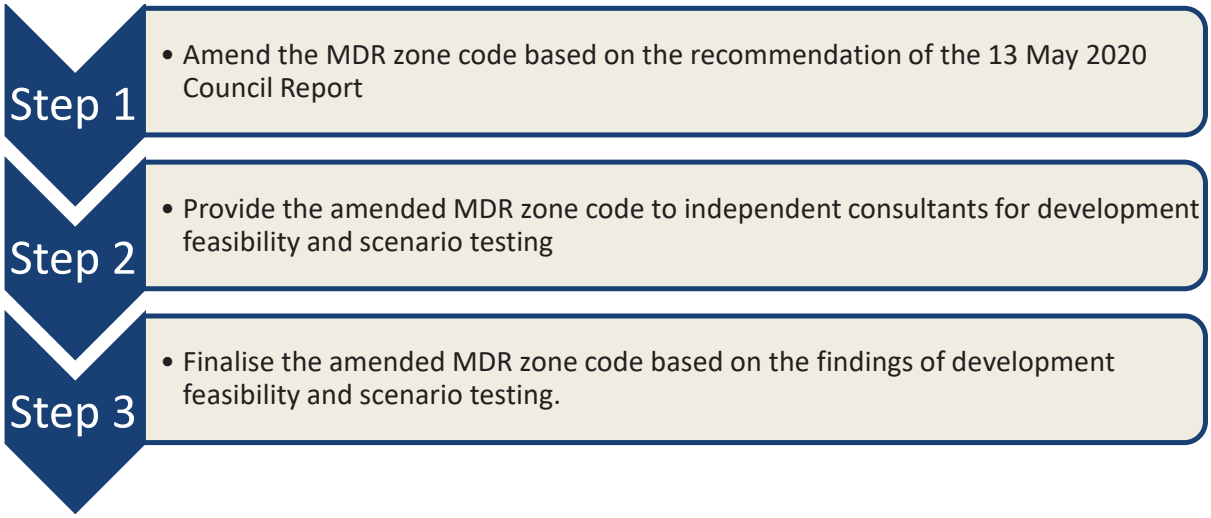
Major Amendment Package (04/20): Medium density residential zone code review (the major amendment package) has been prepared in line with the findings and recommendations contained in Confidential Item 19.1 of the Council General Meeting on 13 May 2020.

The major amendment package includes:

- An amended medium density residential (MDR) zone code.
- Other consequential amendments to the City Plan, including:
  - Amended low medium density residential (LMDR) and tourist accommodation zone codes.
  - Introduction of new administrative definitions for a townhouse and apartment.
  - Other amendments to the City Plan required to reflect the above amendments.

It should be noted that one of the key recommendations of the medium density residential code review was to bring the Multiple Dwelling Design Guide into the City Plan as a new Planning Scheme Policy. This recommendation is, however, not proposed to be progressed through this report and the major amendment package. Council adoption of the new policy will instead be considered in the future Council report that seeks Council adoption of the major amendment package following state interest review. The reason for holding the new policy until following State interest review is that the new policy is not required to undergo State interest review. The new policy is only required to be publicly consulted on. By holding the new policy until a future Council report, unnecessary State review and comments will be avoided.

The major amendment package has been prepared using the following three-step process shown in the chart below.



The amended MDR zone code has been subject to independent development feasibility testing, scenario testing and review. Six (6) new illustrations have also been prepared and included in the amended MDR code to visually assist with the interpretation of the code's outcomes.

The following sections of this report outline the approach undertaken for development feasibility and scenario testing and the findings of such testing (the feasibility and scenario testing reports are attached for further information).

The key changes proposed to the MDR zone code are then outlined and grouped into the six (6) recommendations contained in Attachment 2 of the 13 May 2020 General Meeting report.

The six (6) recommendations are as follows:

- Recommendation 1: Improved coordination of assessment criteria.
- Recommendation 2: Refinement of existing assessment criteria.

- Recommendation 3: Introduce new assessment criteria.
- Recommendation 4: Incorporating the Multiple Dwelling Design Guide into the City Plan (except for the new Planning Scheme Policy).
- Recommendation 5: New administrative definitions.
- Recommendation 6: Proposed amendments to the LMDR zone to ensure alignment with revised MDR zone code.

Approach of development feasibility and scenario testing

Prior to development feasibility and scenario testing, the existing MDR zone code of the City Plan was amended in line with the recommendations of the 13 May 2020 General Meeting report.

Acceptable Outcomes

To allow for development feasibility and scenario testing, the amended MDR zone code included a range of revised acceptable outcomes. This approach allowed the testing of the quantifiable acceptable outcomes. It should be noted that an applicant may seek an alternative outcome to the acceptable outcome in the MDR zone code through a development application and, provided the corresponding performance outcome is met, would receive approval. It is, however, not possible to test the qualitative performance outcomes.

Table 1 below provides a summary of the tested acceptable outcomes.

TABLE 1: SUMMARY OF AMENDED MDR ZONE CODE ACCEPTABLE OUTCOMES FOR FEASIBILITY AND SCENARIO TESTING

OUTCOME	Multiple dwelling type	Acceptable outcome
DWELLING DIVERSITY	Apartment	Apartment development involving 5 or more dwellings ensures that 40% of dwellings have a different number of bedrooms than other dwellings
	Townhouse	Townhouse development involving 5 or more dwellings ensures that 20% of dwellings have a different number of bedrooms than other dwellings
SITE COVER	Apartment	50%
	Townhouse	60%
SETBACKS	Apartment	Front • 4m to balcony and 6m to building wall for 3 storey building • 6m to balcony and 8m to wall for 4 or more storey building Side • 3m up to 3 storey building • 4m for 4 storey or greater building Rear • 6m to building wall for a 3 storey building • 8m to building wall for a 4 or more storey building.
	Townhouse	Front • 3m to building wall and 5.5m to garage Side • Built to boundary does not exceed 4.5m in height and 9m in length along any one boundary. • 1.5m for building wall up to 4.5m in height • 2m for building wall up to 7m in height • 2.5m plus 0.5m for every 3m of part thereof by which the building exceeds 7.5m

TABLE 1: SUMMARY OF AMENDED MDR ZONE CODE ACCEPTABLE OUTCOMES FOR FEASIBILITY AND SCENARIO TESTING

		Rear • 3m
LANDSCAPING	Apartment and Townhouse	20% of site area, including 10% deep planting areas with a minimum dimension of 4m
COMMUNAL OPEN SPACE	Apartment	10 or more dwellings provides 15% of the site area or a minimum of 100m^2 (whichever is greater) as communal open space with 10% or 75m^2 located on ground level.
	Townhouse	20 or more dwellings provides a minimum of 5% of the site area or a minimum area of 50m2 (whichever is greater) as communal open space.

Lot size

The development feasibility and scenario testing included a range of scenarios focusing on MDR zoned lots between 700m^2 and 1600m^2. It should be noted that the development feasibility testing is only relevant to the particular scenario and lot size tested. For example, while a multiple dwelling development may not be feasible on a 700m^2 lot it may be feasible on a larger lot of 900m^2.

The lot size range of 700m^2 to 1600m^2 for testing was chosen based on the spatial analysis presented in the 13 May 2020 General Meeting report that identified a high proportion of lots in the MDR zone are relatively small. It was noted that a significant proportion (49%) of MDR zoned lots are below 700m^2. However, lots of this size were not tested as they were considered to have insufficient area for a well-designed multiple dwelling development and require amalgamation to create a larger site.

To test the feasibility of amalgamating smaller MDR zoned adjoining lots, the development feasibility testing included two scenarios that tested the feasibility of amalgamating adjoining lots less than 700m^2 to create a lot greater than 1000m^2.

Suburbs tested

The development feasibility scenarios have been undertaken across four suburbs (Alexandra Hills, Cleveland, Wellington Point and Victoria Point). These suburbs were selected to provide a range of dwelling sale price points, rather than only selecting high value dwelling sale price suburbs, to ensure the testing reflects the range of MDR lots across the City. Similar to lot size, the results of each scenario are only relevant to the suburb tested and should not be considered to apply across the City. For example, a multiple dwelling scenario that is not feasible in one suburb may be feasible if the scenario is replicated in another suburb with higher dwelling sales prices.

Differences between feasibility and scenario testing

The development feasibility testing and scenario testing have generally not tested the same scenarios in terms of lot size. The development feasibility tested actual MDR lots rather than the theoretical lots tested by the scenario testing.

In addition, the feasibility and scenario testing produced different multiple dwelling development outcomes in terms of the number of apartments or townhouses for a similar site even though both used the same acceptable outcomes. For example, the feasibility testing used only three storey (3) townhouses resulting in a higher dwelling yield compared with the scenario testing that used a mix of two (2) and three (3) storey townhouses developments.

The differences between the two testing approaches illustrates the range of multiple dwelling outcomes that are possible under the acceptable outcomes of the MDR code, depending on the focus of the design. The feasibility testing focused on maximising dwelling yield, while the scenario testing focused on ensuring a well-designed multiple dwelling development and all design elements (site cover, setbacks, landscaping etc.) work together as intended and can fit on a lot.

Car parking rate

The feasibility and scenario testing adopted the car parking rate of the City Plan that applies to multiple dwellings located in either Cleveland, Capalaba or Victoria Point centres or in proximity to high frequency public transport (800m of train station or 400m of high frequency bus route), in recognition that the spatial analysis identified that the majority (90%) of MDR zoned land meets the above.

Development feasibility testing of the amended MDR zone code

Independent consultants CDM Smith were engaged to undertake development feasibility testing of the amended MDR zone code. The development feasibility used four primary scenarios with variations of the primary scenarios (except for scenario 3). This resulted in eight (8) apartment and townhouse scenarios land being tested (see Table 2 below).

TABLE 2: DEVELOPMENT FEASIBILITY SCENARIOS

PRIMARY SCENARIO 1: THREE (3) STOREY APARTMENT DEVELOPMENT ON AN 819M^2 LOT IN ALEXANDRA HILLS	
SCENARIO 1A	Three (3) levels of apartments with one level of basement car parking. Twelve (12) apartments, comprising six (6) two bedroom and six (6) three bedroom apartments
SCENARIO 1B	Three (3) storey building with two levels of apartments and ground level parking. Eight (8) apartments, comprising two (2) one bedroom, four (4) two bedroom and two (2) three bedroom apartments.
SCENARIO 1C	Three (3) storey building with two levels of apartments and ground level parking. Eight (8) apartments, comprising four (4) one bedroom and six (6) two bedroom apartments.
PRIMARY SCENARIO 2: APARTMENT DEVELOPMENT ON AN AMALGAMATED LOT 1,012M^2 IN WELLINGTON POINT	
SCENARIO 2A	Three (3) storeys of apartments with one level of basement car parking. Fifteen (15) apartments, comprising nine (9) two bedroom and six (6) three bedroom apartments.
SCENARIO 2B	Four (4) storeys of apartments with two levels of basement car parking. Twenty (20) apartments, comprising twelve (12) two bedroom and eight (8) three bedroom apartments.
PRIMARY SCENARIO 3: THREE (3) STOREY TOWNHOUSE DEVELOPMENT ON AN 809M^2 LOT IN VICTORIA POINT	
	Seven (7) three storey townhouses.
PRIMARY SCENARIO 4: THREE (3) STOREY TOWNHOUSE DEVELOPMENT ON A 1,639M^2 LOT IN CLEVELAND	
SCENARIO 4A	Fifteen (15) three storey townhouses with community title
SCENARIO 4B	Fifteen (15) three storey townhouses with freehold title

The feasibility testing estimated the project cost and project benefits for each scenario. This included the following key project costs and benefits:

- land acquisition (project cost)
- building construction (project cost)
- car parking construction (project cost)
- sale price of apartments/townhouses (project benefit)

The project costs and project benefits were then compared, to determine a simple development margin. To determine whether a scenario would attract development finance and be potentially feasible, a conservative simple development margin of 20% was used. The report however does note that in the current market a margin of greater than 18% may also allow a development proposal to obtain finance. Table 3 below provides a summary of the feasibility testing for all scenarios.

TABLE 3: SUMMARY OF COST BENEFIT RESULTS BY SCENARIO

	Simple Development Margin	Simple Development Profit
SCENARIO 1A	-4.9%	-$235,743
SCENARIO 1B	7.3%	$200,843
SCENARIO 1C	15.9%	$486,004
SCENARIO 2A	23.6%	$1,448,868
SCENARIO 2B	0.0%	$502
SCENARIO 3	14.5%	$470,818
SCENARIO 4A	18.8%	$1,307,377
SCENARIO 4B	24.2%	$1,687,208

Table 3 shows that scenario 2a and scenario 4b provide a simple development margin greater than 20% and would likely obtain finance.

Scenarios 1c (15.9%), Scenario 3 (14.5%) and 4a (18.8%) while profitable developments are considered unlikely to obtain finance due to not meeting the 20% simple development margin.

Scenario 1a (-4.9%), Scenario 1b (7.3%) and 2b (0%) are either marginally profitable or would make a loss and would not obtain finance.

The above table shows that while all four (4) primary scenarios are profitable but that only primary scenarios 2 and 4 would be likely to obtain development finance based on a 20% simple development margin.

The following points are important to note from the above feasibility scenarios:

- The simple development margin changes significantly based on the sale price of dwellings. For example, if scenario 1b and 1c were considered in Wellington Point rather than Alexandra Hills the development margin is well above 20% (estimated 1b: 26% and 1c: 37%). As mentioned previously, the results of a particular scenario cannot be considered to apply across the City and only apply to the particular suburb.
- The cost of basement car parking ($1,600/m^2) compared with ground level parking ($700/m^2) has implications for development feasibility, particularly in suburbs with lower apartment sales prices. For example, scenario 1a (one level of basement car parking in Alexandra Hills) resulted in a simple development margin of negative 4.9% compared with scenario 2a (one level of basement car parking in Wellington Point) resulting in a margin of 23.6%.
- Scenario 2a demonstrates that it is more feasible to amalgamate smaller MDR zoned lots to develop multiple dwellings in suburbs with higher sales prices.

- The cost of basement car parking within the same suburb also has implications for feasibility, with scenario 1 in Alexandra Hills showing this. Scenario 1a (one level of basement car parking) resulted in a simple development margin of negative 4.9% while scenarios 1b and 1c (ground level parking) have a simple margin of 7.3% and 15.9% respectively. This point and the previous point show how multiple dwelling feasibility is sensitive to the car parking rate applied.
- The dwelling mix also affects development feasibility. For example, scenario 1b and 1c are the same development but with a different mix of apartments in terms of the number of bedrooms. The simple margin for each is quite different, with scenario 1b having a simple margin of 7.3% and scenario 1c 15.9%.
- The cost of constructing a multiple dwelling development also increases significantly when above three (3) storey in height with the cost per square metre increasing from $1,900 to $2,400. The additional cost is related to providing lifts with four (4) or more storeys.

The feasibility testing concluded that the redevelopment of MDR zoned land for 3 storey apartments could be challenging to deliver in suburbs like Alexandra Hills, where the sales price of apartments is lower than other suburbs. In addition, redevelopment on lots that are close to the MDR zone minimum lot size of 800m^2 are also challenging to deliver, as scenario 1 shows.

It is important to note that the amended MDR zone code acceptable outcomes that underwent feasibility testing are similar to the acceptable outcomes in the Brisbane, Gold Coast, Logan and Moreton Bay Regional Councils' planning schemes.

To address the findings of the development feasibility testing, changes have been made to the amended MDR zone code. These changes include:

- Amending the assessment criteria for dwelling diversity to only apply to apartments, and removing the quantifiable acceptable outcome for dwelling mix, to avoid potential negative impacts on development feasibility. The overall and performance outcomes for dwelling diversity will be maintained to require dwelling diversity but allowing this mix to be determined and assessed for each site.
- Increasing the site cover for apartments on lots between 800m^2 and 1000m^2 from 50% to 55% to provide scope for a multiple dwelling building to take up a larger proportion of a site, to support the feasibility of smaller sites. This has resulted in reducing the rear setback from 6 metres to 5 metres, which still provides sufficient room to accommodate the minimum dimension of 4 metres for deep planting and 5 metres for communal open space where required.

To address the challenge of multiple dwelling feasibility in suburbs where the sales price of apartments is lower than other suburbs, it is recommended that detailed local/precinct planning, in consultation with the community, be undertaken for MDR and LMDR zoned land in suburbs like Alexandra Hills to assess in detail what form of multiple dwelling development is feasible and likely to be realised in these suburbs. This local planning could then form the basis for a future amendment to the City Plan.

Scenario testing and review of the amended MDR code

Independent consultants Urbis were engaged to:

- Scenario test the acceptable outcomes of the amended MDR zone code

- Undertake a review of the amended MDR zone code
- Produce illustrations to assist with interpretation of the outcomes sought by the amended MDR zone

The following sections outline each of the above components of the scenario testing and review of the amended MDR zone code.

Scenario testing

To ensure that the site cover, building setbacks (front, side and rear), building wall length and articulation, communal and private open space, landscaping (including deep planting areas) and car parking acceptable outcomes of the amended MDR zone code can all be accommodated and work together as intended on a range of smaller lot sizes for both apartment and townhouse development, the following five (5) scenarios were tested:

- Scenario A – three (3) storey apartment on a 700m^2 lot
- Scenario B – four (4) storey apartment on 1,000m^2 lot
- Scenario C – two (2) storey townhouse on 700m^2 lot
- Scenario D – two (2) storey townhouse on 1,200m^2 lot
- Scenario E – three (3) storey townhouse on 1,200m^2 lot

The scenario testing found that all of the above scenarios can comply with the amended MDR zone code acceptable outcomes. There were, however, issues with the two apartment scenarios on 700m^2 and 1,000m^2 lots meeting the maximum achievable site cover of 50%, which will in turn negatively impact of development feasibility. This is discussed below.

The scenario testing also identified initially that an apartment front setback of 6 metres to the balcony and 8 metres to the building wall for a four (4) storey, or greater, building would result in a very wide and empty streetscape. To address this comment, the scenarios used the same front setback of 4 metres to the balcony and 6 metres to the building wall.

Review of the MDR zone code

Urbis undertook a review of the amended MDR zone and provided specific wording changes and comments on the code. Key wording changes and comments include:

- A number of changes to the overall, performance and acceptable outcomes of the amended MDR zone code.
- Issues with providing a dwelling-diversity acceptable outcome, as the market can only support uptake of certain product, depending on the market cycle and market demand.
- Issues with addressing building height by using both number of storeys and building height in metres (the change to building height acceptable outcome was made to address issues associated with four (4) storey apartment development fitting into the 13m maximum building height for three (3) storey development).

Key Recommendations

The key recommendations from the scenario testing and MDR zone code review include:

- Key recommendation 1 (site cover): Scenario A (apartment on 700m^2 lot) did not meet the maximum site cover of 50% within the front, side and rear setbacks. Consideration should be given to either reducing the setbacks for sites less than 800m^2 or maintaining a minimum 800m^2 lot size acceptable solution.

- Key recommendation 2 (site cover): Scenario C, D and E (townhouse development) delivered significantly less site cover than the 60% provided for townhouses, due to other design parameters including driveway access, deep planting and private open space. All scenarios were under 50%.
- Key recommendation 3 (building height): the acceptable outcome for building height should provide a revised height in metres for 2, 3, 4, 5 and 6 storey buildings that accounts for at-grade parking.
- Key recommendation 4 (landscaped areas): requirements for private open space and driveways limit the ability for Scenario C to deliver 20% landscaped area as an acceptable outcome. Consideration could be given to limiting driveway extent, implementing an acceptable outcome that includes impervious/landscaped areas as part of driveways to soften the extent of development. Other considerations include implementing acceptable outcomes for smaller lot sizes involving smaller setbacks, and lesser extent of deep planting and private open space.
- Key recommendation 5 (streetscape requirements): the MDR code supports townhouse scenarios that provide two-three separate driveways on one site. This will deliver a low quality design outcome for the streetscape. Limitations on the number of driveways as an acceptable outcome should be considered. This is a common approach by other local governments.
- Key recommendation 6 (private open space): not allowing private open space in the front setback as an acceptable outcome should be reconsidered. The location of private open space should also consider site specific circumstances including solar aspect, building orientation, and other technical consideration like air quality and acoustic amenity.
- Key recommendation 7 (apartment diversity): specifying dwelling mix of either apartments or townhouses will lead to significant debate. The market can only support the uptake of certain residential products (i.e. 1, 2 or 3 bedroom dwellings) depending on broader economic influences of supply and demand. There are options to consider for implementing a performance outcome that seeks apartments of varying design and size to provide a diversity of housing.

See the full summary of recommendations in Attachment 3 for further details.

Multiple dwelling illustrations

Urbis were also engaged to prepare six (6) illustrations for the amended MDR zone code to assist with the interpretation of the outcomes.. These illustrations that were prepared are proposed to be included in the MDR zone code in a single location with each illustration referenced by the relevant outcome. For example, the following illustrations assist in interpreting outcomes relating to building and roof design (PO15, PO16, PO21 and PO25) and as such are referenced by these outcomes.

Figure 1: MDR zone code illustration of building and roof design

Amended MDR zone code

The MDR zone code of the Redlands City Plan has been amended in line with the six (6) recommendations of the General Meeting on 13 May 2020 and the findings of the development feasibility testing, scenario testing and MDR code review. This has required numerous changes to the MDR zone code's overall, performance and acceptable outcomes. Attachment 1 details the proposed changes.

The following section outlines some the key changes made to the MDR zone code grouped into the six (6) recommendations focusing on changes made to the performance and acceptable outcomes.

Recommendation 1: Improved coordination of assessment criteria

This recommendation was to improve the coordination between the MDR zone code assessment criteria to ensure they work together to deliver high quality multiple dwelling outcomes. Key amendments include:

Site cover

- The site cover performance outcome (PO9) has been amended to support the other design assessment criteria of the amended MDR zone code. The changes relate to new outcomes for site cover to be consistent with the intended medium density character of an area, immediate streetscape and mitigate the bulk and scale of development. Other outcomes have also been added to ensure site cover provides sufficient area to achieve a range of other design outcomes, including boundary and frontage setbacks, private and communal open space, residential amenity and landscaping outcomes.
- The site cover acceptable outcome (AO9) has been reduced from a maximum of 75% to a maximum of 55% for an apartment building on a lot 800m^2 to 1000m^2, 50% for an apartment on a lot greater than 1,000m^2 and 50% for a townhouse. To meet the acceptable outcome, multiple dwelling development would need to ensure that the site cover fits within the building setbacks (building envelope).
- The changes made to the site cover acceptable outcomes (AO9) align with the building setbacks (PO12 and PO13) to ensure that the site cover outcome is within the area of the lot available after building setbacks are taken.

Boundary setbacks

- Specific front/street setback assessment criteria for apartments has been included (PO12 and AO12) that differentiates between balcony and wall setbacks to support other design assessment criteria like building articulation, street activation and passive surveillance outcomes.

Communal and private open space

- The acceptable outcomes for community open space (AO4) and private open space (AO5) have been expanded to comprehensively address the related performance outcome (PO4 and PO5) by including design criteria. This will ensure that if an application meets the acceptable outcomes for open space it will also meet all of the performance outcome rather than only part.

Recommendation 2: Refinement of existing assessment criteria

This recommendation involved the refinement of existing performance and acceptable outcomes to address a range of matters. Key amendments include:

- The site requirement performance outcome (PO7) has been expanded to ensure a site has sufficient area to accommodate the scale and form of a well-designed and articulated apartment building and its design and servicing requirements. To reflect the changes to the performance outcome, the acceptable outcome (AO7) has also been expanded to include site area criteria (lot size) that varies based on building height. For example, the site acceptable outcome for a 3 storey apartment is to have a minimum of 800m^2 with a 20m street frontage, while for a 4 storey apartment a site is required to have a minimum of 1,000m^2 with a 20m street frontage to meet the acceptable outcome.

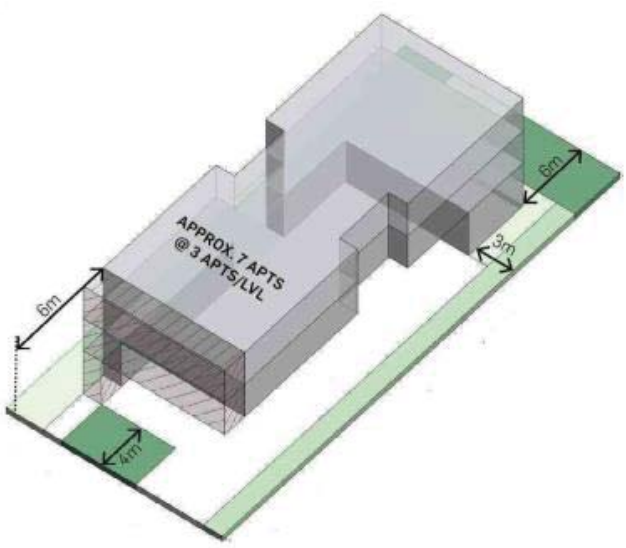
- The building height acceptable outcomes have been revised down for 3, 4, 5 and 6 storey buildings by 2 metres based on a review of a recently approved apartment development with at-grade parking and comparison to other local government planning schemes. The maximum building height for a three (3) storey building is proposed to be 11 metres. The Brisbane City Plan for example includes a maximum building height of 11.5 metres for a three (3) storey multiple dwelling development. The proposed reduced building height will ensure that a four (4) storey building cannot fit within the building height acceptable outcome for a three (3) storey building.
- The building boundary setbacks (front, side and rear) performance outcomes (PO12 and 13, and AO12 and 13) have been expanded and changed through benchmarking with other planning schemes, resulting in acceptable outcomes that are specific for apartments and townhouses. The front setback assessment criteria have also been separated from the side and rear boundary setbacks to ensure that the different outcomes being sought for front boundary setbacks compared with side and rear setbacks are clear.
- The existing communal open space trigger of twenty (20) or more dwellings has been maintained for townhouses but reduced to ten (10) dwellings for apartments (PO4), based on benchmarking with other planning schemes. The change recognises that apartments require communal open space at a lower threshold than townhouses as private open space for apartments generally consists of only a balcony.
- The landscaping performance outcome has been expanded significantly to recognise the need for deep planting areas to support the retention or establishment of significant trees that at maturity compliment the scale and height of the built form (PO29 and PO30). The related acceptable outcomes have also been expanded, with the overall landscaping increased from 15% to 20% of the site. The deep planting area of the overall landscaping is proposed at 10%, and includes that deep planting has a minimum dimension of 4 metres rather than the current 2 metres. Flexibility is also introduced to provide deep planting areas where required on the site to retain or establish significant trees, rather than requiring it on the street frontage.
- The roof design performance and acceptable outcomes have been amended to assist in reducing overall roof and building bulk through articulation and variety in design (PO21). The outcomes have also been amended to better address rooftop structures, open space and sub-tropical design.
- The car parking performance and acceptable outcomes have been amended to ensure that resident car parking provided at ground level is contained within the building footprint, and landscaped/screened from view from the street, public spaces and adjoining properties (PO22). Visitor car parking can be located in the front setback provided it is adjoining the driveway and screened from the street.
- The waste and recycling storage area performance and acceptable outcomes have been refined to ensure this area is contained in the building footprint and is not visible from the street or public spaces and mitigates adverse amenity impacts on adjoining properties (PO34).

<u>Recommendation 3: Introduce new assessment criteria</u>

This recommendation involved the introduction of new assessment criteria (overall, performance and acceptable outcomes) to require a dwelling mix (number of bedrooms), facilitate freehold titling of townhouses, manage building size, enhance streetscape and site analysis criteria. The new assessment criteria include:

- A performance outcome that apartment development involving five (5) or more dwellings provides a mix of dwelling sizes in terms of the number of bedroom to accommodate a range of household types (PO6). No acceptable outcome is proposed, based on the findings of both the feasibility and scenario testing.
- A performance outcome to facilitate freehold title for individual townhouses. The new outcome only applies to new townhouses that are designed to function as separate dwellings (PO38). The new outcome is based on an approved example in the City of new townhouses on freehold title. Importantly, the outcome requires that the townhouse freehold lots are only created following construction of the townhouses. This avoids the potential for lots to be created below the City Plan minimum lot size acceptable outcome and not used for the approved townhouse development.
- A performance outcome that multiple dwelling building walls are visually interesting, through providing articulation in the side and rear walls and a break up of multiple dwelling development to reduce the bulk and scale of buildings, and support for dual orientation dwellings with natural cross ventilation (PO19) is included. The related acceptable outcome (AO19) includes a maximum length of a building wall of 30 metres, with a surface articulation in the side and rear wall, every 15 metres, or plus or minus 1.5 metres for a length of 5 metres. Figure 2 below illustrates this acceptable outcome.

Figure 2: Example of three (3) storey apartment with articulation on side wall



- The driveway and internal access ways performance and acceptable outcomes have been amended to provide that driveway locations and design are well integrated with the building design and streetscape, while considering street trees and utility infrastructures on the road verge (PO23).

<u>Recommendation 4: Incorporating the Multiple Dwelling Design Guide into the City Plan</u>

This recommendation required the incorporation of the Multiple Dwelling Design Guide into the City Plan. This recommendation has two key parts:

- Integration of the Multiple Dwelling Design Guide into the assessment criteria of the amended MDR zone code.
- Converting the Multiple Dwelling Design Guide into a new Planning Scheme Policy.

The integration of the design guide into the assessment criteria of the amended MDR zone code has primarily involved inclusion of new or amended design assessment criteria in the amended MDR zone code. Some key examples include:

- A new performance outcome that multiple dwelling development design responds to the site characteristics and character of the surrounding neighbourhood (PO35). This can be achieved through demonstrating that a suitable site and neighbourhood analysis has been undertaken and used to inform the building design. The performance outcome is intended to ensure that multiple dwelling design responds to the site, and that transposed standard (cookie cutter) designs are not used.
- A new performance outcome whereby key corners are given appropriate prominence through changes in articulation, materials, colour and roof form (PO16).
- A new performance and acceptable outcome criterion regarding the design of driveways and internal access ways; to be designed as part of the overall design, use high quality and interesting materials, reduce visual impacts through building siting and landscaping, and limiting driveways to one per street frontage (PO23 and AO23).

This second part of this recommendation, to convert the Multiple Dwelling Design Guide into a new Planning Scheme Policy, has been completed and is attached for noting purposes only at this stage. Recognising that the new policy does not require state interest review, it will be integrated with the major amendment package through the future Council report that seeks Council approval to release of the major amendment package for public consultation. This will allow the major amendment package and the new policy to be publicly consulted on at the same time.

Recommendation 5: New administrative definitions

This recommendation related to including new administrative definitions for townhouse and apartment multiple dwelling forms into the City Plan. Other administrative definitions are also proposed to define new terms included in the amended MDR code. These include:

- building footprint
- building envelope
- articulation

Recommendation 6: proposed amendments to the LMDR zone to ensure alignment with revised MDR zone code

The proposed amendments to the MDR zone code have been made to the LMDR zone code, where appropriate, to ensure the two codes align and achieve consistent outcomes for multiple dwelling development throughout the City.

In addition, amendments have also been made to the Tourist accommodation zone code, where appropriate, to ensure this code that also supports multiple dwellings is aligned.

Next steps

The next step, subject to Council resolving to proceed with the major amendment package, is to submit the package for state interest review and Ministerial approval to proceed to public consultation.

The amendment process is expected to take approximately 12 months, based on previous amendments to the City Plan that have followed the standard major amendment process under the *Minister's Guidelines and Rules.*

The option of making a temporary local planning instrument (TLPI) to change the operation of the City Plan and give effect to the amendment package immediately while the amendment process is progressed has been considered but is not recommended.

A TLPI is an appropriate response where both Council and the Minister are satisfied that urgent action is needed to protect all or part of the planning scheme area from significant risk of serious adverse cultural, economic, environmental or social conditions and where:

- The delay involved by following the major amendment process would increase the risk.
- The TLPI would not adversely affect a state interest.

The option of pursuing a TLPI is not considered to meet the above test. There is no clear indication of a risk of serious adverse cultural, economic, environmental or social conditions that would result because of the time taken to amend City Plan to incorporate the major amendment package through normal processes.

Furthermore:

- Since commencement of the City Plan, on 8 October 2018, the Council has decided only a small number of multiple dwelling applications (fourteen).
- Considering the current economic uncertainty associated with the COVID-19 pandemic, it is not expected that there will be a higher rate of multiple dwelling development in the short term.
- A TLPI would change the operation of the City Plan immediately without any opportunity for public consultation on the major amendment package.
- The Minister would be unlikely to support a TLPI.

STRATEGIC IMPLICATIONS

Legislative Requirements

The proposed major amendment package is to be undertaken in accordance with the requirements of the *Minister's Guidelines and Rules*, a statutory document made under the *Planning Act 2016*. This includes public consultation.

Risk Management

Undertaking the major amendment package in consultation with the community will ensure the City Plan remains current and consistent with community expectations.

Financial

There are no financial implications resulting from this report.

People

The staff resourcing required to make the proposed amendment will be drawn from the Strategic Planning Unit of Council's City Planning and Assessment Group.

Environmental

Ensuring the MDR zone code delivers a high-quality medium density built form consistent with the Redland City character and with reasonable community views and expectations is important to providing sufficient housing for the growing community within a contained settlement pattern that supports environmental protection outcomes.

Social

Ensuring the MDR zone code delivers a high-quality medium density built form consistent with the Redland City character and with reasonable community views and expectations is important in providing housing diversity (including affordable and social housing outcomes) to meet the diverse and changing housing needs of the community.

Human Rights

Ensuring the MDR zone code delivers a high-quality medium density built form consistent with the Redland City character and with reasonable community view and expectations is important in providing diverse and affordable housing that supports greater home ownership.

Alignment with Council's Policy and Plans

The proposed amendments will align with the *Wise Planning and Design* goals contained in Council's Corporate Plan and the Redlands Community Plan. This includes improving efficiencies in the City Plan.

CONSULTATION

Consulted	Consultation Date	Comments/Actions
City Planning and Assessment Group, Development Assessment	17 June – 5 August 2020	Review and comment on draft medium density residential zone code
Financial Services	13 July 2020	Advice on the 20% simple development margin used in the CDM Smith development feasibility assessment
Community and Economic Development	13 July 2020	Advice on the 20% simple development margin used in the CDM Smith development feasibility assessment
Legal Services	14 October 2020	Advice provided on s254(J) of the Local Government Regulation 2012 (LCM 9225)

OPTIONS

Option One

That Council resolves as follows:

1. To undertake a major amendment to City Plan as detailed in Attachment 1: City Plan Major Amendment Package (04/20): Medium density residential zone code review.
2. To submit City Plan Major Amendment Package (04/20): Medium density residential zone code review to the Planning Minister for the purpose of completing the State interest review, in accordance with the process outlined in the *Minister's Guideline and Rules*.
3. That the report and attachments remain confidential until such time that the major amendment package is released for public consultation, subject to Council and Ministerial approval or Council resolves not to proceed with the proposed major amendment package to maintain the confidentiality of legally privileged, private and commercial in confidence information.

Option Two

That Council resolves as follows:

1. To undertake a major amendment to the City Plan as detailed in Attachment 1: City Plan Major Amendment Package (04/20): Medium density residential zone code review (subject to amendments).
2. To submit City Plan Major Amendment Package (04/20): Medium density residential zone code review to the Planning Minister for the purpose of completing the State interest review, in accordance with the process outlined in the *Minister's Guideline and Rules*.
3. That the report and attachments remain confidential until such time that the major amendment package is released for public consultation, subject to Council and Ministerial approval or Council resolves not to proceed with the proposed major amendment package to maintain the confidentiality of legally privileged, private and commercial in confidence information.

Option Three

That Council resolves to not proceed with Attachment: City Plan Major Amendment Package (04/20): Medium density residential zone code review.

OFFICER'S RECOMMENDATION

That Council resolves as follows:

1. **To undertake a major amendment to the City Plan as detailed in Attachment 1: City Plan Major Amendment Package (04/20): Medium density residential zone code review.**
2. **To submit City Plan Major Amendment Package (04/20): Medium density residential zone code review to the Planning Minister for the purpose of completing the State interest review, in accordance with the process outlined in the *Minister's Guideline and Rules*.**
3. **That the report and attachments remain confidential until such time that the amendment package is released for public consultation, subject to Council and Ministerial approval or Council resolves not to proceed with the proposed major amendment package to maintain the confidentiality of legally privileged, private and commercial in confidence information.**

City Plan Major Amendment Package (04/20)
Medium Density Residential Code Review
Part 1: Medium Density Residential Zone Code

Prepared by Redland City Council

November 2020

Note: yellow highlight denotes an addition to the City Plan and ~~strikeout~~ denotes a deletion.

6.2.3 Medium density residential zone code

6.2.3.1 Application

This code applies to development:

(1) within the medium density residential zone as identified on the zoning maps contained within Schedule 2 (mapping); and
(2) identified as requiring assessment against the medium density residential zone code by the tables of assessment in Part 5 (tables of assessment).

When using this code, reference should be made to section 5.3.2 and, where applicable, section 5.3.3, in Part 5.

6.2.3.2 Purpose

(1) The purpose of the medium density residential zone code is to provide for medium density living in areas that are close to public transport or centres, and characterised by a mix of multiple dwelling types. ~~including dwelling houses on a range of lot sizes, dual occupancies and multiple dwellings.~~
(2) The purpose of the code will be achieved through the following overall outcomes:
    (a) the medium density residential zone consists predominantly of townhouses and apartments. Short term accommodation, retirement and residential care facilities may also be established;
    (b) non-residential uses which provide a community service function or a local service such as a café, ~~may be~~ are only established where they are small scale, primarily serve the needs of the immediate locality, do not significantly detract from residential amenity, do not compromise the role of any centre and are provided as part of a mixed use development with residential, retirement or tourist accommodation;
    (c) reconfiguration does not reduce lot sizes below 800m^2, unless the resultant lots are of a sufficient size to accommodate well-designed multiple dwelling development and all required design elements (e.g. articulation of building elements, landscaping, deep planting and open space) or where a townhouse development has been designed to facilitate freehold titling;
    ~~lot sizes are not reduced below 800m^2, unless the resultant lots are consistent with the density and character of the surrounding established neighbourhood;~~

Editor's note – small medium density residential zoned sites may need to be amalgamated or packaged into larger sites to facilitate well-designed, integrated and efficient multiple dwelling design outcomes.

    (d) individual apartment development ~~housing~~ provides a range of dwelling sizes in terms of the number of bedrooms to cater for a range of different households;
    (e) home-based businesses are undertaken where they do not detract from the residential amenity of the area;
    (f) development is generally two to three storeys in height, unless otherwise intended in a particular precinct;
    (g) buildings are set back from property boundaries to maintain an attractive streetscape character, ~~and~~ protect the privacy and amenity of adjoining residences, provide for natural light and air circulation and provide for landscaping, including deep planting areas;
    (h) development incorporates architectural styles and elements that reduce bulk and enhance the visual impact of the built form;
    (i) development achieves a well-designed, architecturally interesting built form through a mix of articulation of building elements, roof forms, screening, textures, materials and colours;

    ~~small sites are amalgamated into larger sites to facilitate better and more efficient building design results;~~

(j) development makes a positive contribution to the streetscape and character of the locality and strengthens site features, such as views, heritage or significant trees;
(k) development provides high-quality private and communal open spaces for residents that enhance liveability and meet recreational needs;
(l) development provides car parking that is integrated into the site and building and does not negatively impact on the site or adjoining sites or the quality and amenity of the streetscape;
(m) development retains (except where not practicable) or establishes significant trees in deep planting areas ~~wherever practical, development retains significant trees~~ and avoids alteration to natural drainage lines; and

Note – the retention of significant tree is accepted as not practicable where a significant tree due to its location prevents the ability to facilitate a well-designed, integrated and efficient multiple dwelling design outcome consistent with this code.

(n) development creates a safe, comfortable and convenient pedestrian environment within and external to the site, and facilitates a high level of accessibility and permeability for pedestrians and cyclists.

(3) The purpose of the zone will also be achieved through the following additional overall outcomes for particular medium density residential precincts:

(a) Precinct MDR1: parkland living, Capalaba:

(i) buildings are orientated towards Capalaba Regional Park and encourage surveillance, access and views towards the park;
(ii) building height reinforces the role and vibrancy of Capalaba as a principal centre;
(iii) paths and landscape elements connect to the east-west pedestrian spine through Capalaba principal centre through to Capalaba Regional Park; and
(iv) development reinforces a low speed traffic environment within the precinct and extensive on-street car parking.

Figure 6.2.3.2.1—Precinct MDR1: parkland living, Capalaba

(b) Precinct MDR2: Mount Cotton Road, Capalaba:

(i) building height provides a transition in height between the principal centre and the surrounding residential environment, to minimise potential impacts of overshadowing and loss of privacy on adjoining sites.

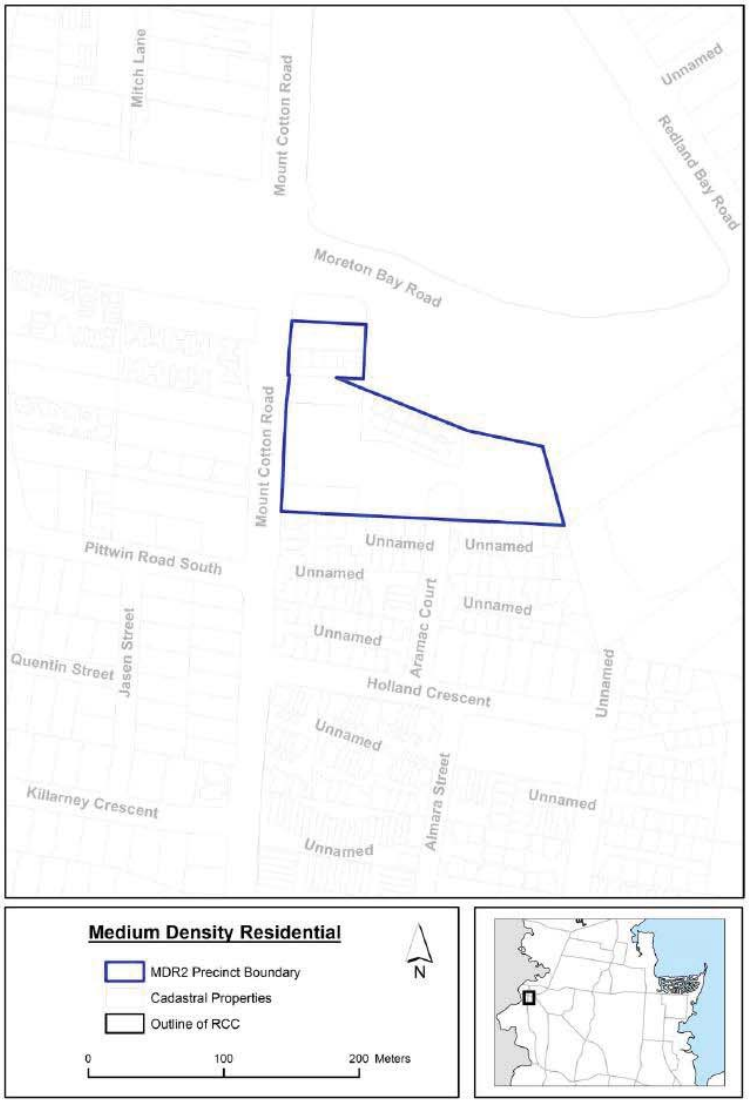


Figure 6.2.3.2.2—Precinct MDR2: Mount Cotton Road, Capalaba

(c) Precinct MDR3: Shore Street East, Cleveland:

(i) a slightly higher built form creates a focal point between Cleveland principal centre and Toondah Harbour; and

(ii) new development consolidates underutilised sites.

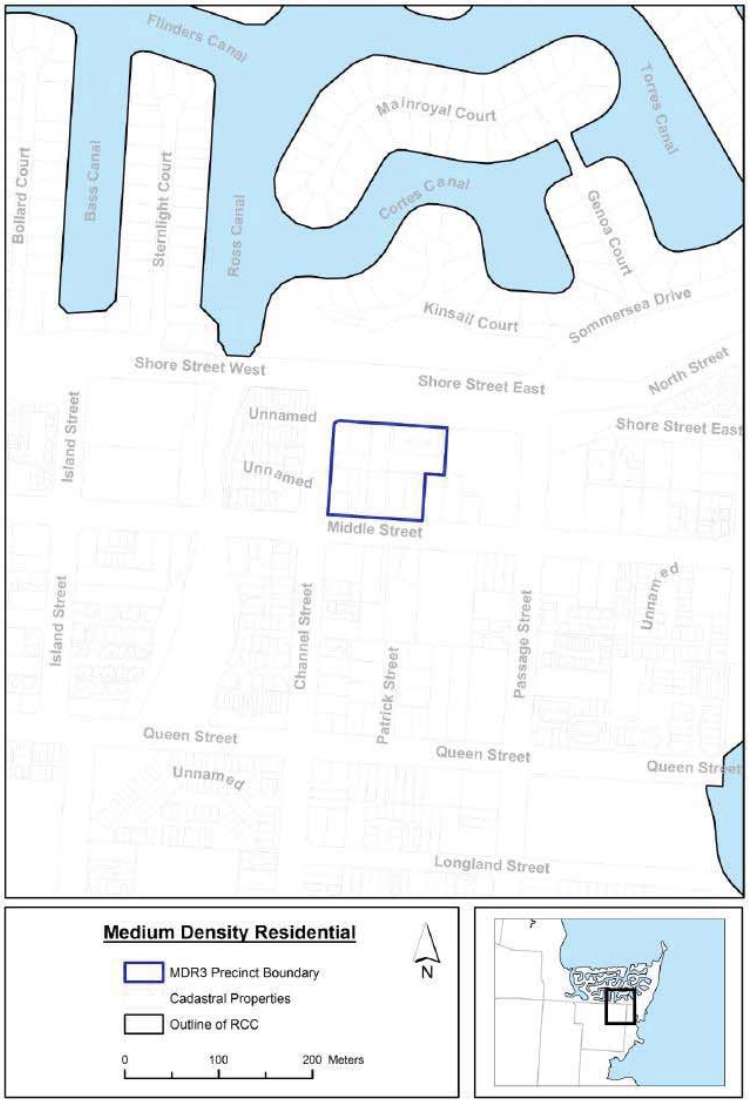


Figure 6.2.3.2.3—Precinct MDR3: Shore Street East, Cleveland

(d) Precinct MDR4: Cleveland:

(i) development assists in providing connections between Cleveland principal centre and the surrounding area;
(ii) building height reinforces the role and vibrancy of Cleveland as a principal centre and the connection between the centre and Toondah Harbour; and
(iii) new development consolidates underutilised sites.

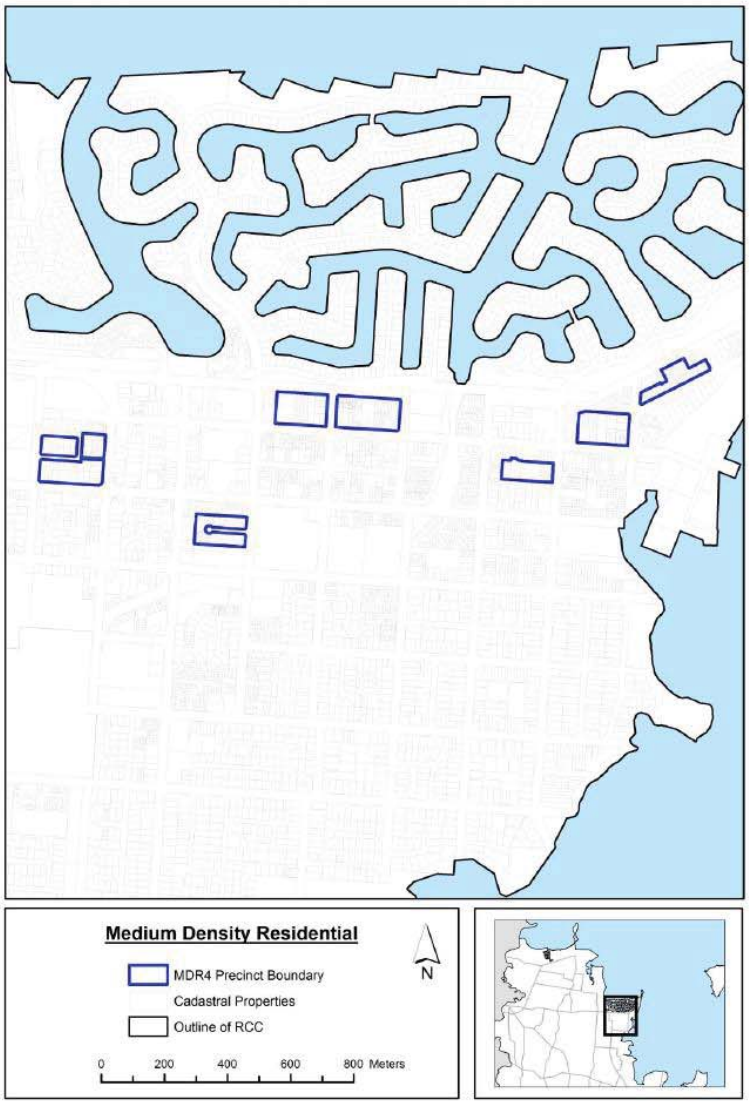


Figure 6.2.3.2.4—Precinct MDR4: Cleveland

(e) Precinct MDR5: Esplanade, Redland Bay:

(i) development provides for a slightly higher built form which optimises the amenity provided by the bay-side location.

Figure 6.2.3.2.5—Precinct MDR5: Esplanade, Redland Bay

(f) Precinct MDR6: South East Thornlands:

(i) urban development provides for a mix of affordable housing types;
(ii) transport networks are coordinated and interconnected to ensure a high level of accessibility for pedestrians, cyclists, public transport and private vehicles; and
(iii) interim development does not compromise or constrain the potential for well designed future urban communities.

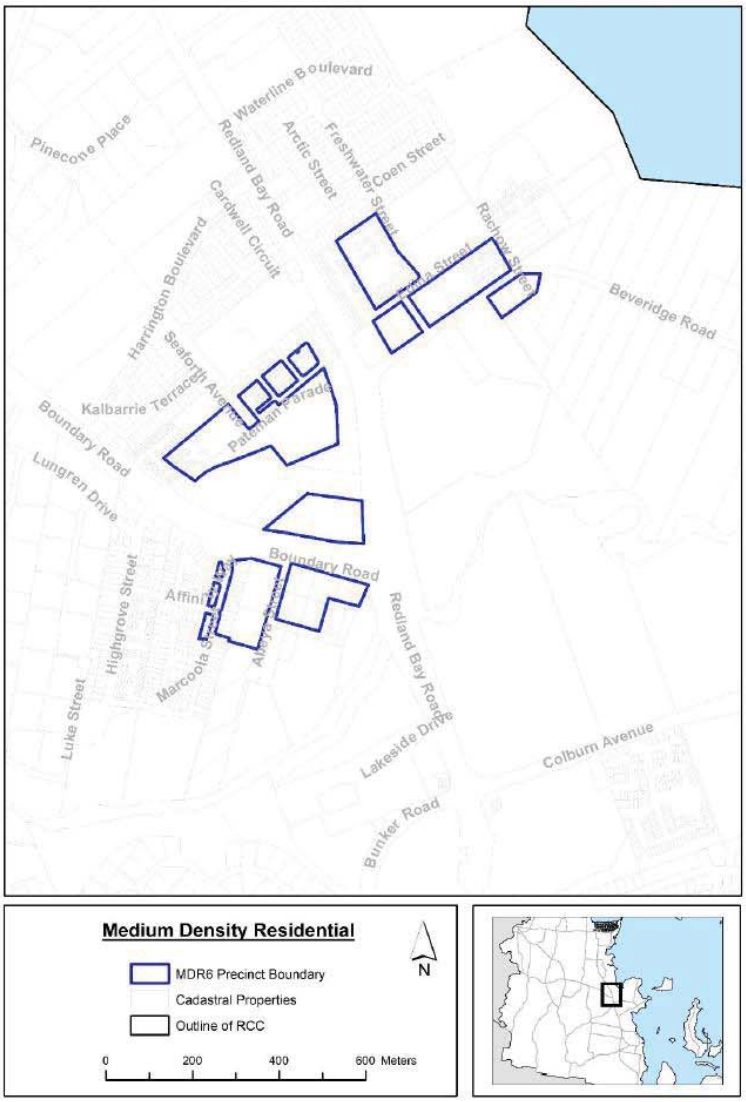


Figure 6.2.3.2.6—Precinct MDR6: South East Thornlands

(g) Precinct MDR7: Eprapah Creek, South East Thornlands:

(i) urban development provides for a mix of affordable housing types;

(ii) development along Eprapah Creek provides for a slightly higher built form which optimises the amenity provided by the creek-side open space;
(iii) transport networks are coordinated and interconnected to ensure a high level of accessibility for pedestrians, cyclists, public transport and private vehicles; and
(iv) interim development does not compromise or constrain the potential for well designed future urban communities.

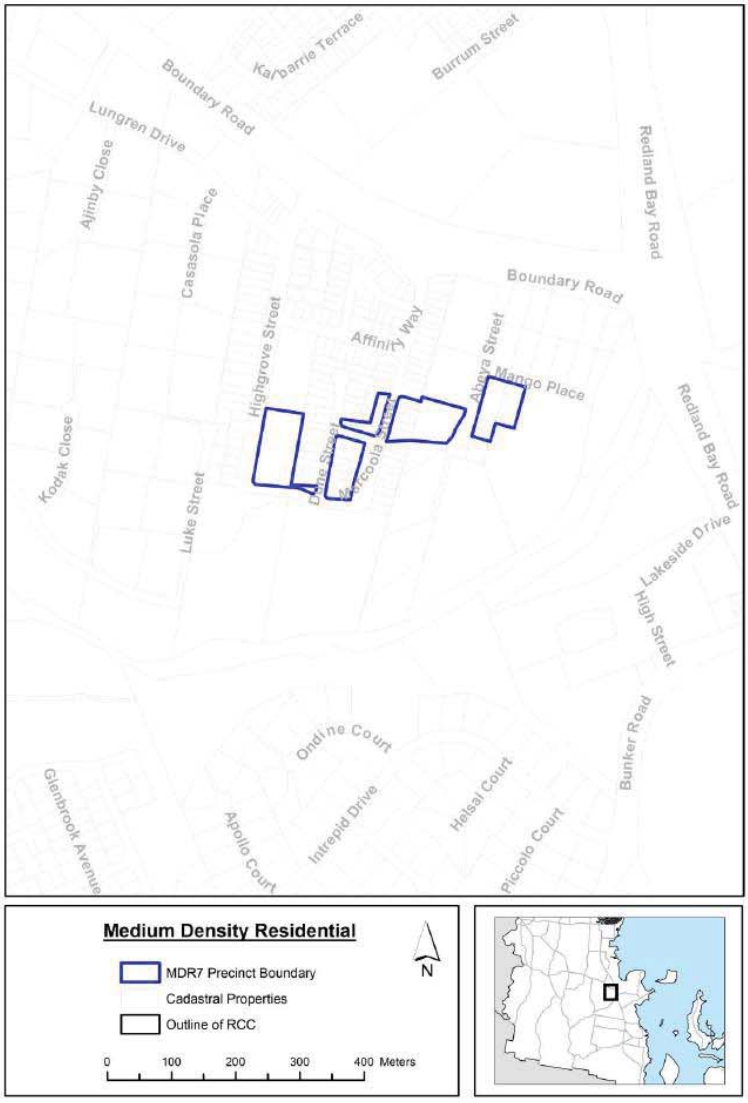


Figure 6.2.3.2.7—Precinct MDR7: Eprapah Creek, South East Thornlands

(h) Precinct MDR8: Kinross Road and Boundary Road and precinct MDR9: Kinross Road:

(i) urban development provides for a mix of housing types and achieves a minimum net residential density of 44 dwellings per hectare;
(ii) development provides for a high level of accessibility to nearby local centres and community facilities;
(iii) transport networks are coordinated and interconnected to ensure a high level of accessibility for pedestrians, cyclists, public transport and private vehicles;
(iv) development on land fronting Boundary Road and Panorama Drive is designed to:

(A) rely on access from the internal street network with no access from Boundary Road and Panorama Drive; and
(B) facilitate landscaping and acoustic treatment of Boundary Road and Panorama Drive;

(v) development maintains significant habitat linkages and assists in the safe movement of koalas;

Editor's note—Applicants should be aware that the provisions of the *Planning Regulation 2017*, Schedules 10 (part 10) and 11 also apply to development in this area.

(vi) development does not compromise or constrain the potential for well designed future urban communities;
(vii) building height in precinct MDR8 Kinross Road and Boundary Road is compatible with that of surrounding residences.

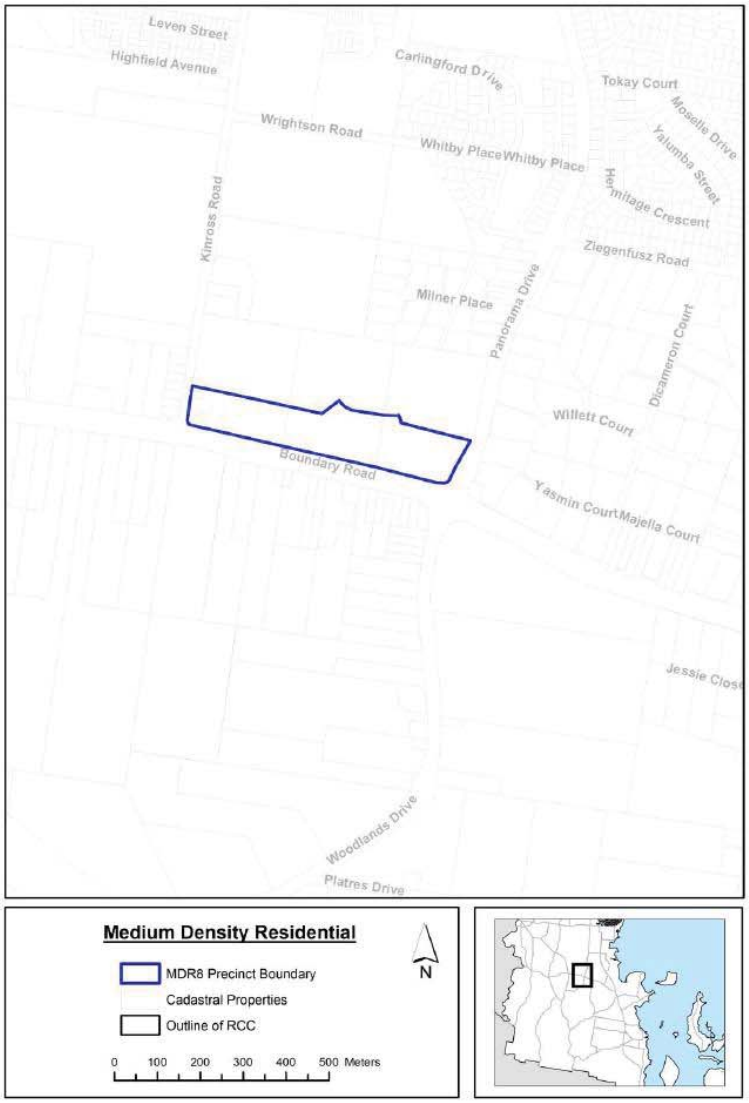


Figure 6.2.3.2.8—Precinct MDR8: Kinross Road and Boundary Road

Figure 6.2.3.2.9—Precinct MDR9: Kinross Road

6.2.3.3 Medium density residential zone code – Specific benchmarks for assessment

Table 6.2.3.3.1—Benchmarks for assessable development

Performance outcomes	Acceptable outcomes
For development that is accepted subject to requirements and assessable development	
Dual occupancies	
PO1 ~~To provide~~ Good residential design ~~that~~ promotes the efficient use of a lot, an acceptable amenity to residents, and ~~to~~ facilitate~~s~~ off street parking.	**AO1.1** A Dual occupancy complies with all of the Acceptable Solutions specified in the Queensland Development Code part MP1.3. Note — For the purpose of this AO, a reference to "duplex" in the Queensland Development Code MP1.3 is taken to be "Dual occupancy" as defined by this planning scheme. Note — References to the Queensland Development Code MP1.3 for the purposes of this AO are to be applied as if these provisions applied to a Dual occupancy. Note — The Queensland Development Code MP1.3 indicates that it is only applicable to Class 1 and associated Class 10 buildings. For the purpose of this AO, the class of building is irrelevant, as long as the development meets the definition of "dual occupancy" as defined by this planning scheme. Note — Other zone code provisions will prevail over this acceptable outcome to the extent of any inconsistency.
For assessable development ~~Editor's~~ Note – ~~Council has developed a~~ Planning Scheme Policy 7 Multiple Dwelling Design Guide provides ~~to assist~~ assistance to applicants in achieving high standard design outcomes for multiple dwellings that meet the assessment criteria in this planning scheme. ~~For developments involving multiple dwellings, it is recommended that this document is used as a reference document to support the assessment benchmarks in this planning scheme.~~	
Non residential uses	
PO2 Non-residential uses occur only where they: (1) are for a food and drink outlet, community care centre or community use ~~service function such as a local café~~; (2) are ~~integrated~~ designed to be compatible with residential activities as part of a mixed use development; (3) do not unduly detract from internal or local residential amenity; (4) are small scale and primarily serve the immediate community; and (5) do not impact on the function of any nearby centre.	No acceptable outcome is nominated.
Short term accommodation	
PO3	No acceptable outcome is nominated.

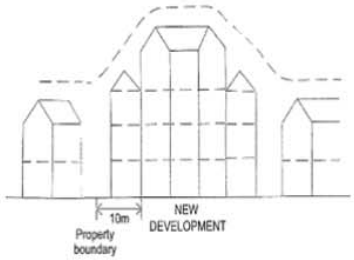
Performance outcomes	Acceptable outcomes
Short term accommodation is located and designed to minimise conflicts with permanent residential development.	
All residential development – communal and private open space	
PO4 Development involving an apartment development with 10 or more dwellings or a townhouse development with 20 or more dwellings provides sufficient communal open space that: (1) is readily accessible, usable and safe; (2) provides flexible spaces and recreation facilities suitable for a range of activities; (3) is landscaped to provide shade, creating a pleasant micro-climate and for visual relief to soften the impact of building and hardstand areas; (4) provides opportunity for casual social interaction; (5) is designed and located to minimise impacts on the amenity of residents of the development and neighbouring properties; (6) is co-located with but separate from deep planting areas (except where not practicable); and (7) minimises impervious ground level areas to improve on-site stormwater filtration. ~~**PO4** Developments involving more than 20 dwellings provide sufficient communal open space to:~~ ~~(1) create usable, flexible spaces suitable for a range of activities; and~~ ~~(2) provide facilities including seating, landscaping and shade.~~	**AO4.1** Communal open space is provided, where development involves: (1) an apartment development with 10 or more dwellings; (a) provides a minimum of 15% of the site area or 100m² (whichever is greater) as communal open space,; (b) has a minimum dimension of 5m; and (c) communal open space can be provided at ground level, on rooftops, on podiums, by indoor recreational facilities, or a combination of these; and (2) a townhouse with 20 or more dwellings (a) provides a minimum of 5% of the site area or a minimum area of 50m² (whichever is greater) as communal open space; and (b) has a minimum dimension of 5m. ~~**AO4.1** Where development involves more than 20 dwellings:~~ ~~(1) for developments equal to or less than 13m in height, a minimum of 5% of the site area or a minimum area of 50m² (whichever is the greater) is provided as communal open space; or~~ ~~(2) for developments greater than 13m in height, a minimum of 15% of the site area or a minimum area 50m² (whichever is the greater) is provided as communal open space;~~ ~~with a minimum dimension of 5m.~~ ~~Note—Communal open space can be provided on rooftops, on podiums, or at ground level.~~
	AO4.2 A communal open space area is designed to: (1) be centrally located to be readily accessible for residents via pedestrian pathways; (2) be co-located with deep planting areas where practicable; (3) ensure that 50% of the principal usable area receives a minimum of two hours of direct sunlight between 9am and 3pm on 21 June;

Performance outcomes	Acceptable outcomes
	(4) be clearly distinguished from any private open space ; (5) be well lit and subject to passive surveillance; (6) provide a range of recreational facilities including, for example; (a) seating for individuals or groups; (b) barbeque areas; (c) play equipment or play areas; and (d) swimming pool, gyms, tennis court, common room or communal gardens; (7) provide a minimum of 15% planted or grassed landscaping, including a planted area with a minimum width of 1.5m where adjoining a neighbouring property; (8) ensure a minimum of 15% of the area is shaded by trees; (9) have a finished surface level with a gradient less than 5 percent; (10) have hard and soft landscape treatments; and (11) be clear of all non-recreational structures, including clothes hoists, driveways, water tanks, car parking and garbage storage. Editor's note: landscaping provided in communal open space is separate from deep planting areas.
PO5 Development provides private open space that ~~is~~: (1) is useable in size and shape to meet the needs of a diversity of potential residents; (2) is functional and easily accessible from living or common areas to promotes outdoor living as an extension of the dwelling; (3) is clearly identified as private open space; ~~and~~ (4) provides a high level of privacy for residents and neighbours; and (5) is located and designed to enhance the liveability of residents.	**AO5.1** For a ground floor dwelling, ground floor private open space is designed and located to ~~provided with~~: (1) predominately face north, east or west; (2) provide a minimum area of 16m^2 if a dwelling in a residential care facility; or (3) provide a minimum area of 25m^2 for all other dwellings; ~~and~~ with: a. a minimum dimension of 4m and clear of any utilities such as gas, clothes drying facilities, water tanks or air-conditioning units; b. direct access from living or common areas to extend the living space; c. screening or fencing to clearly identify the area as private open space; d. a high level of privacy for residents and neighbours; and e. a high level of acoustic amenity.

Performance outcomes	Acceptable outcomes
	AO5.2 For dwellings above ground level, private balconies are designed and located to: ~~are provided with a minimum area of:~~ (1) predominately face north, east or west; (2) be orientated with the longer side facing outwards, or open to the sky, to optimise daylight access into adjacent rooms; (3) provide a minimum of 10m² if a dwelling in a residential care facility; or **(4)** for all other dwellings: (a) a minimum area of 10m² for a 1 bedroom unit; ~~and~~ or (b) a minimum area of 16m² for a two or more bedroom unit; with: a. a minimum dimension of 3m and clear of any air conditioning unit or drying space; b. direct access from living or common areas to extend living areas; and c. a high level of privacy for residents and neighbours.
	AO5.3 Where clothes drying areas are provided on private balconies they are screened from public view and do not take up more than 10% of the balcony area.
Apartment diversity	
PO6 Development for an apartment development involving 5 or more dwellings provides a mix of dwelling sizes, in terms of the number of bedrooms, to accommodate a range of household types.	No acceptable solution nominated.
Built form	
PO7 Development occurs on a site that has an area and street frontage width that is sufficient to: (1) accommodate the scale and form of well-designed and articulated multiple dwelling building; (2) allow buildings to be oriented to the street;	**AO7.1** Development has a minimum site area and street frontage width of: (1) 800m² and 20m, for a building 3 storeys or less in height; or (2) 1,000m² and 20m, for a building 4 storeys or greater in height.

Performance outcomes	Acceptable outcomes
(3) provide for communal and private open spaces at ground level; (4) provide safe and convenient vehicle access to the site; (5) accommodate on-site parking for residents and visitors, and waste and delivery vehicles manoeuvring; (6) deliver substantial landscaping including deep planting areas to retain or establish significant trees; and (7) provide adequate building setbacks to adjoining properties to maintain residential amenity and privacy. ~~**PO6** Development occurs on lots which provide sufficient space for buildings to be oriented to the street.~~	~~**AO6.1** The site has a frontage which is a minimum of 20m in width.~~
PO8 Development provides for interaction with the street and public spaces by: (1) providing non-residential uses, like a food and drink outlet, at ground level with direct and safe pedestrian access; or (2) providing dwellings or habitable rooms at ground level; and (3) ensuring ground level dwellings or habitable rooms adjoining a street or public space have direct and safe pedestrian access to the street or public space wherever possible. ~~**PO7** Wherever possible, ground floor dwellings are provided with direct pedestrian access to the street.~~	No acceptable solution nominated. Figure 6.2.3.3.7 illustrates.
PO9 Site cover: (1) is consistent with the intended medium density character of the area and immediate streetscape; (2) mitigates the bulk and scale of development; (3) provides natural light, sunlight and breeze to living and open space areas; (4) provides for privacy between dwelling units for residents and neighbouring properties; (5) supports residential amenity for residents and neighbouring properties (6) provides usable open space for residents; and (7) allows for substantial landscaping, including deep planting areas to retain or establish significant trees.	**AO9.1** Site cover: (1) fits in the building envelope (within the acceptable setbacks); and (2) does not exceed : (a) 55% for an apartment development on a lot 800m^2 to 1000m^2; or (b) 50% for an apartment development on a lot greater than 1000m^2 or for a townhouse development. Figure 6.2.3.3.5 illustrates.

Performance outcomes	Acceptable outcomes
~~**PO8** Site cover:~~ ~~1. allows for provision of substantial open space and landscaping on the site; and~~	~~**AO8.1** Site cover does not exceed:~~ ~~1. 75% where a multiple dwelling with a building height equal to or less than 13m; and~~ ~~2. 60% otherwise.~~
PO10 Building height: (1) in precinct MDR1 parkland living, Capalaba, is mid-rise and provides a transition up to higher buildings within the principal centre; (2) in precinct MDR2 Mount Cotton Road Capalaba, is mid-rise but steps down from the principal centre to low-rise residential areas south of Redland Bay Road; (3) in precinct MDR3 Shore Street East, Cleveland, is mid-rise but creates a focal point between Cleveland principal centre and Toondah Harbour; (4) in precinct MDR4 Cleveland, is mid-rise and reinforces the connection between Cleveland principal centre and Toondah Harbour; (5) in precinct MDR7 Eprapah Creek, South East Thornlands and precinct MDR5 Esplanade, Redland Bay, is mid-rise, accommodating a slightly higher built form than surrounding medium density residential zoned land ~~to optimise the amenity of their locations~~; (6) in precinct MDR8 Kinross Road and Boundary Road, is low-rise and compatible with the height of surrounding residences; and (7) is up to three storeys (with a maximum height of 11m) in all other areas.	**A10.1** Building height does not exceed the height set out in Table 6.2.3.3.2 Building height.
PO11 Where building height over ~~13~~11m is intended, buildings step down in height and scale to be of a similar size to intended building height on adjoining residential zoned land.	**AO11.1** Buildings: (1) within 10m of the common boundary have a building height no more than ~~13~~ 11m; and (2) within 20m of the common boundary have a building height no more than 6m greater than the intended building height on the adjoining site. Figure 6.2.3.3.1 illustrates.

Performance outcomes	Acceptable outcomes
	 **Figure 6.2.3.3.1 —Height between adjoining development**
PO12 Front boundary setbacks (other than basements): (1) create an attractive, consistent and cohesive streetscape; (2) results in development not being visually dominant or overbearing with respect to the streetscape; (3) assist in achieving visual privacy to ground floor dwellings from the street; (4) support the location of balconies for casual surveillance of the street and articulation of the building facade; (5) provide for landscaping to soften and screen the built form, including deep planting areas to retain or establish significant vegetation; (6) provide for usable open space for ~~occupants~~ the residents; (7) provide for visitor car parking for apartment development; and (8) where tandem car parking spaces are proposed in front of townhouse garages, they are contained wholly within the property boundary. Editor's note –The provision of tandem car parking spaces is not supported in all locations. Refer to Table 9.3.5.3.2 – Minimum on-site vehicle parking requirements in the Transport, servicing, access and parking code for further information. ~~**PO11** Building setbacks (other than basements):~~ ~~1. maintain appropriate levels of light and solar penetration, air circulation, privacy and amenity for existing and future buildings;~~ ~~2. do not prejudice the development or amenity of adjoining sites;~~ ~~3. assist in retaining native vegetation and allow for the introduction of landscaping to complement building massing and to screen buildings;~~	**AO12.1** The front boundary setback is a minimum of: (1) 3m to the building wall and 5.5m for garage doors for a townhouse development; or (2) 4m to balcony, eaves, awning or the like and 6m to building wall for an apartment development; Figure 6.2.3.3.6 illustrates. ~~**AO11.1** The front boundary setback is a minimum of:~~ ~~(1) 5.5m for garage doors; and~~ ~~(2) 3m otherwise.~~

Performance outcomes	Acceptable outcomes
~~4.~~ ~~provide space for service functions including car parking and clothes drying; and~~ ~~5.~~ ~~where tandem car parking spaces are proposed in front of garages, they are contained wholly within the property boundary.~~	
PO13 Side and rear boundary setbacks: (1) minimise the impacts of development on the amenity and privacy of existing and future adjoining residents; (2) does not prejudice the intended future development of adjoining sites; (3) contribute to the pattern of the streetscape consistent with the intended neighbourhood character; (4) support the separation of buildings to provide visual and acoustic privacy; (5) maintain sufficient levels of natural light, and air circulation for residents of the development and adjoining sites; (6) ensure daylight penetrates all sides of the proposed building; (7) provide for communal and private open space areas; (8) provide space for service functions, including clothes drying areas if needed; (9) support the introduction of landscaping to complement building massing, screen buildings and support the privacy of existing and future adjoining residents; and (10) provide for deep planting areas, to retain and protect significant native trees	**AO13.1** The side boundary setback: ~~At the side boundary~~ (1) provides that a built to boundary wall does not exceed 4.5m in height and 9m in length along any one external boundary for a townhouse development; and (2) otherwise for a townhouse development, is a minimum of: (a) 1.5m for a building wall up to 4.5m high; (b) 2m for a wall up to ~~7~~8.5m high; (c) 2~~.5~~m plus 0.5m for every 3m or part thereof by which the building exceeds ~~7~~8.5m; or (3) for apartment development on a lot 800m^2 to 1000m^2, is a minimum of 3m to a balcony or the building wall; or (4) for apartment development on a lot greater than 1000m^2, is a minimum of 4m to a balcony or the building wall. Note—Where a multiple dwelling in the form of attached or terrace houses is proposed, side setbacks would apply only to boundaries shared with adjoining sites and not to "internal" lot boundaries within the development site.

Performance outcomes	Acceptable outcomes
(except where not practicable) and vegetation, or establish large subtropical shade trees. Note – the retention of a significant tree is accepted as not practicable where a significant tree due to its location prevents the ability to facilitate a well-designed, integrated and efficient multiple dwelling design outcome consistent with this code.	**AO13.2** The rear boundary setback is: (1) for a townhouse development a minimum of 3m; or (2) for apartment development on a lot 800m^2 to 1000m^2, a minimum of 5m to a balcony or the building wall; or (3) for apartment development on a lot greater than 1000m^2, a minimum of 6m to a balcony or the building wall. ~~**AO11.3** The rear boundary setback is a minimum of:~~ ~~1. 4m for a wall up to 13m high; and~~ ~~2. 6m where above 13m high.~~
PO14 Basements: (1) are located outside of deep planting areas; (2) are designed to integrate into the building façade and landscape design to minimise visual impacts on the streetscape; and (3) provide for natural ventilation... ~~**PO12** Basements are designed to ensure:~~ ~~1. substantial areas of the site are available for deep planting; and~~ ~~2. a strong relationship between the street and the proposed building and ground level open space.~~	No acceptable outcome is nominated. ~~**AO12.1** Basements are set back by:~~ ~~1. 2m from the street frontage; and~~ ~~2. 2m from other site boundaries if landscaping is intended to provide screening to neighbouring sites.~~
PO15 Buildings are designed to: (1) contribute to an attractive streetscape and intended character of the local area; (2) be orientated to the street; (3) incorporate balconies that address street frontages and public spaces; (4) provide modulation and articulation in the building façade and elevations' horizontal and vertical profiles; (5) provide projections and recesses in the facade and elevations that reflect changes of internal functions of buildings, including circulation; (6) include variation in building materials, contrasting colours, textures and finishes that emphasise architectural features;	No acceptable outcome is nominated. Figures 6.2.3.3.7 and 6.2.3.3.8 illustrates

Performance outcomes	Acceptable outcomes
(7) use similarly proportioned roof forms, doors, windows and balconies to complement the local character; (8) break up the appearance of large buildings through roof form, materials, articulation, projections and recesses that reflect the existing streetscape scale; and (9) articulate building entrances and openings. **PO13** ~~Design elements contribute to an interesting and attractive streetscape and building through:~~ ~~(1) the provision of projections and recesses in the facade which reflect changes of internal functions of buildings, including circulation;~~ ~~(2) variations in material and building form;~~ ~~(3) modulation in the facade, horizontally or vertically;~~ ~~(4) articulation of building entrances and openings; and~~ ~~(5) corner treatments to address both street frontages.~~	
PO16 Development ensures that: (1) corner sites address both street frontages; and (2) key corners are given prominence by changes in articulation, materials, colour/artwork and roof expression.	No acceptable outcome is nominated. Figures 6.2.3.3.7 and 6.2.3.3.8 illustrates.
PO17 Development for services and related structures: (1) are accessible for maintenance; (2) are integrated to blend into the overall development design; and (3) are designed and orientated to not visually dominate the street frontage.	**AO17** Services and related structures (such as electricity transformers, fire hydrant and booster assemblies.) where located in the front boundary setback: (1) extend for no more than 5m or 10% of the street frontage (whichever is lesser); (2) are orientated towards internal driveways or footpaths; and (3) are located, screened with similar materials to the building or landscaped to not be visually obtrusive when viewed from the street. Figure 6.2.3.3.8 illustrates.
PO18 A main pedestrian entrance is provided for an apartment building that connects the street with the building and: (1) is separated from the vehicle entry; (2) provides safe and convenient access to the building for pedestrians, with crime	No acceptable outcome is nominated.

Performance outcomes	Acceptable outcomes
prevention principles incorporated, to eliminate concealment areas and visually delineate the public and private spaces; and (3) includes an entry treatment that provides waiting space off the footpath, lighting, mailboxes, building signage and numbering.	
PO19 Multiple dwelling building walls are designed to: (1) be visually interesting through the provision of articulation on the side and rear walls; (2) avoid highly reflective finishes; (3) break up multiple dwelling development and reduce the scale and bulk of the buildings; and (4) support dual-orientation dwellings to provide for natural cross ventilation.	**AO19.1** The maximum length of a building wall in any direction is 30m, with a change in the building line every 15m on side and rear walls of plus or minus 1.5m for a length not less than 5m. Figures 6.2.3.3.7 and 6.2.3.3.8 illustrates. Editor's note-full building separation provides a minimum of 6m.
PO20 Design elements promote a subtropical and climate responsive design character through: (1) the use of deep balconies ~~verandahs~~, decks and eaves; (2) orientating habitable room windows, private open space (balconies and terraces) to the north where possible; (3) maximising dwellings with a northern aspect; (4) maximising dual orientation of habitable rooms to provide for natural cross ventilation; (5) integration of buildings with landscape planting and deep planting areas to create a pleasant micro-climate; and (6) screening habitable rooms from the western sun, using building and landscape elements.	No acceptable outcome is nominated Figures 6.2.3.3.7 and 6.2.3.3.8 illustrates. Editor's note—Applicants should have regard to Subtropical Design in South East Queensland A Handbook for Planners Developers and Decision Makers (2010 Centre for Subtropical Design QUT).
PO21 The design of roof form, rooftops and building caps of apartment development: (1) provides an interesting and attractive roof-scape that enhances the architectural distinction of the building and makes a positive contribution to the local character; (2) is articulated to reduce the bulk and scale of a building when viewed from the street (3) considers the ability for discreet placement and optimum orientation of solar panels; (4) maximises solar access for dwellings	**AO21.1** Roof form, rooftops and building caps are designed to: (1) include interesting forms created through pitches, gables, skillions or other features; (2) be articulated to break down the roof and building bulk and scale; (3) provide opportunity for stormwater collection, solar energy and communal open space; (4) be angled to the north and east to maximise solar access in winter; and

Performance outcomes	Acceptable outcomes
during winter and provides shade in summer; and (5) incorporates variety in design; and (6) effectively integrates or screens service structures, plant and equipment and provides for the future inclusion of additional plant and equipment; and (7) avoids highly reflective finishes.	(5) incorporate hoods and overhangs to shade walls and windows from the summer sun. Figures 6.2.3.3.7 and 6.2.3.3.8 illustrates. ~~No acceptable outcome is nominated.~~
~~**PO15** Roof form assists in reducing the appearance of building bulk by:~~ ~~(1) articulating individual buildings;~~ ~~(2) incorporating variety in design;~~ ~~(3) incorporating a roof pitch, gable or the like in buildings up to 13m; and~~ ~~(4) screening plant and equipment, such as vents, lift over runs or solar energy and storm water collectors.~~	**AO21.2** Rooftop service structures, plant and equipment are: (1) integrated into the building design to be an architectural feature; or (2) discreet or effectively screened; and (3) designed to enable future inclusion of plant and equipment such as telecommunications facilities in an unobtrusive manner
	AO21.3 Where rooftops are used for communal open space: (1) service structures, plant and equipment are visually and acoustically screened; and (2) landscaping is provided to provide shade and visual relief.
PO22 Parking facilities for apartment development: (1) are contained within a basement level or within the building footprint where located at ground level : (2) are designed to not dominate the streetscape or the building form when viewed from the street, other public spaces and adjoining properties; (3) provide storage areas for residents; and (4) mitigate amenity impacts on adjoining residents.	**AO22.1** Parking facilities for residents (excludes visitor car parking):: (1) are located in a basement level; or (2) within the building footprint at ground level where; (a) landscaped and screened from view from the street, other public spaces and adjoining properties; (b) integrated into the building façade through architectural elements; and (3) provide storage areas for residents.
	AO22.2 Visitor car parking (excludes resident parking) are located: (1) in a basement level; or (2) at ground level within the building footprint where landscaped or screened from view from the street, other public spaces and adjoining properties; or

Performance outcomes	Acceptable outcomes
	(3) in the front setback where adjoining the driveway and landscaped or screened from view from the street.
PO23 Parking facilities for townhouse development are located so they do not dominate the streetscape or the building form when viewed from the street.	**AO23.1** Vehicle parking structures are located behind the front building alignment.
PO24 Driveways and internal access ways are located and designed to: (1) integrate into the overall building design; (2) define the public and private space; (3) support active street frontages and enhance the streetscape character; (4) incorporate high quality pavement materials, textures and colours to contribute to an attractive and interesting streetscape; (5) minimise visual impact of long driveways through changing alignments and landscaping; (6) be located on secondary/rear frontages, where available; (7) limit the number and width of driveway crossovers to the minimum required; (8) minimise the extent of internal access ways; (9) mitigate impacts on neighbouring properties; (10) maximise the availability of on-street parking; (11) support the retention or establishment of street trees; and (12) allow for refuse collection and street infrastructure.	**AO24.1** Driveways and internal access ways are located and designed: (1) to incorporate high quality pavement materials, textures and colours that are consistent with the overall building design; (2) to be limited to one crossover per street frontage; (3) to provide the minimum width required; (4) to be offset from the side boundary by a minimum of 1m to allow for landscaping; and (5) to minimise and soften visual impacts through (a) offset alignment of the driveway and landscaping to screen the view of the driveway from the street; (b) a change in alignment within 20m from the street frontage; and (c) soft landscaping along the driveway and at the end of the straight alignment. Figure 6.2.3.3.7 illustrates.
PO25 Development provides front fences or walls along street frontages, or public spaces, that create an attractive streetscape by: (1) incorporating a mixture of building materials that complement the design of buildings (2) providing visual interest and a softening of the visual impact where significant in length (3) highlighting the entrance to the property	**AO25.1** Fences or walls along a street front or public space are designed to incorporate a mixture of building materials that complement the design of the building. **AO25.2** Where a fence or wall along street frontages or public spaces exceeds 10m in length, indentations, material variation or soft landscaping (including planter boxes) are incorporated. Figure 6.2.3.3.7 illustrates.
PO26 Development is designed to ~~create an attractive streetscape and~~ discourage crime	**AO26.1** Balconies, windows and building openings overlook streets and other public spaces.

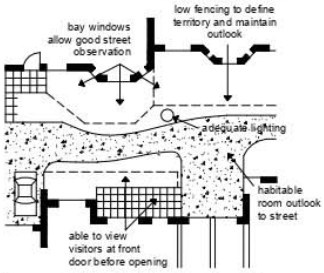
<table>
<tr><th>Performance outcomes</th><th>Acceptable outcomes</th></tr>
<tr><td>and anti-social behaviour by:
(1) maximising opportunities for casual surveillance of the street, public places, communal open space (where provided) pedestrian and cycle paths, including the primary pedestrian entrance and car parking areas;
(2) ensuring spaces are well lit;
(3) minimising potential concealment and entrapment opportunities;
(4) providing direct movements with clear unobscured sight lines; and
(5) having fencing and walls along a street frontage or public space incorporate visually permeable materials and treatments.</td><td>Figures 6.2.3.3.2 and 6.2.3.3.9 illustrates.
 

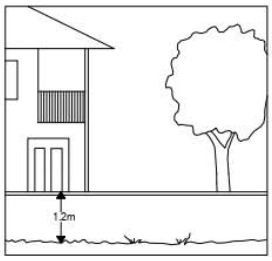
Figure 6.2.3.3.2—Overlooking</td></tr>
<tr><td></td><td>AO26.2
Fences or walls along a street frontage or public space have a maximum height of:
(1) 1.2m where solid; or
(2) 1.8m where that portion of the fence above 1.2m high is at least 50% transparent.
Figures 6.2.3.3.3 and 6.2.3.3.4 illustrate.
 

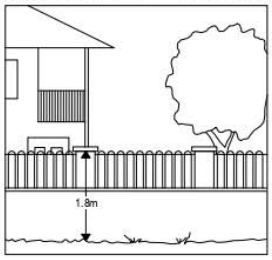
Figure 6.2.3.3.3 — Fencing (1)
 

Figure 6.2.3.3.4 — Fencing (2)</td></tr>
<tr><td>PO27
On elevated or steeply sloping sites:
(1) development is sympathetic to the natural landform through the use of terraced or split level building forms that minimise ground level disturbance outside the building footprints; and</td><td>No acceptable outcome is nominated.</td></tr>
</table>

Performance outcomes	Acceptable outcomes
(2) the understoreys of buildings are screened to maintain the quality of view when viewed from below.	
Amenity	
PO28 Privacy between dwelling units on the site and adjoining sites is achieved by effective building design and the location of windows and outdoor open spaces to prevent overlooking into habitable rooms or private open space areas or through the use of screening devices. Where screening devices are used, they are integrated with the building design.	**AO28.1** Where habitable room windows are directly adjacent to habitable rooms of adjoining dwellings and are within a distance of 9m and within an angle of 45 degrees, privacy is protected by: (1) sill heights being a minimum of 1.5m above floor level; or (2) providing fixed translucent screens, such as frosted or textured glazing, for any part of the window below 1.5m above floor level; or (3) providing fixed external screens. Figure 6.2.3.3.9 illustrates.
	AO28.2 Outlook from windows, balconies, stairs, landings, terraces and decks and other private areas, is screened where a direct view is available into the private open space of another dwelling. Screening is achieved by: (1) fixed translucent screens, such as frosted or textured glazing, for any part of the window below 1.5m above floor level; or (2) fixed external screens; or (3) planting that will achieve a minimum of 2m in height at maturity. Figure 6.2.3.3.9 illustrates.
	AO28.3 Where incorporating screening devices, they are: (1) solid translucent screens or perforated panels or trellises that have a maximum of 25% openings, with a maximum opening dimension of 50mm and are permanently fixed and durable; and (2) offset a minimum of 300mm from the wall of the building. Figure 6.2.3.3.9 illustrates.
PO29 Development provides side and rear fencing that protects the privacy and amenity of adjoining properties.	**AO29.1** Side and rear boundary fences are a minimum of 1.8m in height where adjoining a residential use.

Performance outcomes	Acceptable outcomes
	Figure 6.2.3.3.9 illustrates.
PO30 Development is designed to facilitate the retention and establishment of significant trees and street trees (except where not practicable) that: (1) complement and soften the scale and bulk of the built form; (2) support an attractive streetscape; (3) enhance the amenity of residents; and (4) provide natural shade to improve the micro-climate. Note – the retention of a significant tree is accepted as not practicable where a significant tree due to its location prevents the ability to facilitate a well-designed, integrated and efficient multiple dwelling design outcome consistent with this code.	No acceptable outcome is provided.
PO31 On-site landscaping is provided to: (1) contribute to an attractive streetscape; (2) enhance the appearance of the development; (3) complement any native vegetation within the site; (4) provide for the retention or establishment of significant trees in deep planting areas (5) provide privacy between on-site dwellings and adjoining properties; (6) provide natural shade to mitigate heat island impacts; (7) soften and breakup the extent of driveways and internal access ways; and (8) screen unsightly components.	**AO31.1** A minimum of ~~15%~~ 20% of the site is planted or grassed landscaping (rather than hardstand), including 10% of the site for deep planting areas. Editor's note-landscaping that is not deep planting areas can be located in communal open space areas.
	AO31.2 A 2m wide planted landscaped area ~~which is capable of deep planting to sustain mature trees,~~ is provided along the length of any public road frontage.
	AO31.3 Development provides: (1) a minimum 1m wide planted landscaped area on a side boundary where a driveway, or a ground level open parking area, is located adjacent the boundary; and (2) an extended landscaped area of a minimum of 1.5m for every 5m of driveway length.
PO32 Deep planting areas are provided that: (1) are located to retain or establish significant trees to soften the built form; (2) are co-located with communal open space, street trees or deep planting areas on adjoining properties; (3) are accessible to provide informal recreation spaces for residents; (4) are of sufficient size and dimension to support the retention or establishment of significant trees that at maturity	**AO32.1** Deep planting areas are located: (1) within boundary setbacks to soften the built form as viewed from the street and adjoining properties; (2) to retain significant trees; and (3) to co-locate with communal open space, street trees or deep planting areas on adjoining properties.
	AO32.2 Deep planting areas are:

Performance outcomes	Acceptable outcomes
complement the scale and height of the built form; (5) are open to the sky with access to light and rainfall; (6) are maintained exclusively for landscaping, with no underground development or infrastructure; (7) reduce urban heat island effects by improving the micro-climate; and (8) provide water quality and quantity benefits from the natural filtration of rainfall into the ground.	(1) a minimum of 10% of the site; (2) a minimum unobstructed dimension of 4m in any direction; and (3) completely open to the sky. Editor's note-the deep planting area acceptable outcome for a minimum of 10% of a site is part of the overall minimum 20% landscaping for a site rather than in addition.
	AO32.3 Deep planting areas are exclusively for landscaping and do not contain: (1) driveways, manoeuvring or hardstand areas and pedestrian paths; (2) surface structures and infrastructure such as water tanks or utilities; and (3) sub-surface structures or infrastructure such as basement car parking and water supply or wastewater infrastructure.
PO33 Development minimises impacts on surrounding residential amenity and provides a high level of on-site amenity for occupants, having regard to noise, odour, vibration, air or light emissions.	No acceptable outcome is nominated.
PO34 Siting and design achieves a high level of amenity for occupants by minimising impacts from noise generating areas, such as streets, driveways, car parking areas, service areas, private and communal open space areas and mechanical equipment.	No acceptable outcome is nominated.
PO35 Development minimises the extent of shadows on useable private open space or public spaces and provides adequate sunlight to habitable rooms on the site and adjoining.	**AO35.1** Solar access to habitable rooms and private open space of dwellings: (1) is not less than 3 hours between 9am and 3pm on June 21; or (2) where existing overshadowing by building and fences is greater than this, sunlight is not further reduced by 20%.
PO36 Waste and recycling container storage areas: (1) for apartment development are located within the building footprint; (2) provide an accessible location for residents and waste collection; (3) are not be visible from street and other public spaces; (4) mitigate adverse amenity impacts in terms of odour, noise and visual impacts on residents on-site and residents of adjoining properties.	**AO36.1** Waste and recycling container storage areas are: (1) located within the building footprint for an apartment development; (2) co-located in car parking areas, in a basement or at ground level; (3) separated from open space areas on-site and on adjoining properties; (4) screened or enclosed;

Performance outcomes	Acceptable outcomes
~~**PO23** Waste disposal and servicing areas are not visible from public places and do not have adverse amenity impacts on adjoining properties.~~	(5) integrated into the building design, using similar material and finishes; and (6) well ventilated. ~~No acceptable outcome is nominated.~~
PO37 Development site layout and design enhances and complements the character of the surrounding neighbourhood and responds to the topography, natural values and development constraints by: (1) integrating into the surrounding residential neighbourhood; (2) providing an attractive and interesting streetscape; (3) taking advantage of the site's natural features like views, vistas, existing vegetation and landmarks; (4) minimising and mitigating impacts on ecological corridors and native vegetation; and (5) minimising alteration to natural topography and drainage lines. Editor's note-this performance outcome can be met through submission of a design concept that demonstrates the design process and includes: (1) site and neighbourhood analysis; (2) building design criteria/principles informed by an opportunities and constraints analysis; and (3) an outline of how the layout and design responds to the site, streetscape, surrounding neighbourhood and natural values constraints. ~~**PO24**~~ ~~The site layout responds to topography, natural values and development constraints, such that:~~ ~~(1) impacts on ecological corridors and native vegetation are minimised and mitigated; and~~ ~~(2) alteration to natural topography and drainage lines is minimised.~~	No acceptable outcome is nominated. Editor's note—Applicants will also need to have regard to any relevant overlays applicable to the development site.
Reconfiguration	
PO38 Reconfiguration creates lots that are of a size that can accommodate medium density residential development in a form that meets the intentions of this zone. Lots less than 800m^2 are not created.	**AO38.1** Reconfiguration achieves a minimum lot size of 800m^2.
PO39 Reconfiguration of a townhouse development to establish freehold lots only occurs where:	No acceptable outcome is nominated.

Performance outcomes	Acceptable outcomes
(1) the townhouse development is designed to be freehold titled by ensuring: (a) the townhouse development remains in compliance with the development approvals following reconfiguration; (b) each townhouse remains a self-contained residence following reconfiguration; and (c) that dependant activities of the development are not separated by freehold titling; (2) the lots are created following construction of the townhouses; (3) equitable sharing and ongoing maintenance of any shared facilities or infrastructure is established. Editor's note- material change of use and reconfiguration applications should be submitted together to allow concurrent assessment.	
Precinct MDR6: South East Thornlands, and precinct MDR7: Eprapah Creek, South East Thornlands	
PO40 Housing is designed and located to maximise outlook across adjoining areas of open space.	No acceptable outcome identified.
PO41 Development facilitates the establishment of a safe, permeable, legible and functional movement network that is in accordance with Figures 6.2.3.3.10 ~~5~~ road movement network and 6.2.3.3.11 ~~6~~ pedestrian, cycle and public transport network.	**AO41.1** Roads, intersections, paths and public transport stops and associated treatments are established in accordance with Figures 6.2.3.3.10 ~~5~~ road movement network and 6.2.3.3.11 ~~6~~ pedestrian, cycle and public transport network.
PO42 Where development involves or adjoins nominated boulevard roads, the road design: (1) creates a grand avenue character, being 50m wide for the central boulevard and 25m wide for the southern boulevard; **(2)** incorporates very wide landscaped medians that are of a sufficient width to support fauna movement; and **(3)** wide shoulders and verges which accommodate separated pedestrian and cyclist paths and dense landscaping.	**AO42.1** Total width of the boulevard is: (1) central boulevard - 50m; and **(2)** southern boulevard - 25m.
PO43 Development is set back from Boundary Road by a distance sufficient to accommodate substantial landscaping to retain a heavily vegetated character.	**AO43.1** In addition to any widening of the road reserve required by the Queensland Government, development provides a 15m wide strip either side of Boundary Road

Performance outcomes	Acceptable outcomes
	which is densely vegetated by trees and shrubs.
PO44 Development adjoining Cleveland Redland Bay Road and Boundary Road attenuates noise to a level that achieves a high level of residential amenity. Any acoustic walls: (1) are screened by landscaping; and **(2)** incorporate breaks to allow for pedestrian and cyclist permeability.	No acceptable outcome is nominated.
PO45 Development facilitates: (1) a logical pattern of development; **(2)** efficient use of land and infrastructure; **(3)** a mix of affordable housing types; **(4)** access to community infrastructure and public transport services at an early stage of development; and **(5)** land for community uses and public services, including open space education, health, social and emergency services where appropriate.	No acceptable outcome is nominated.
PO46 Development provides for separation and buffering from nearby activities, including primary production, poultry farms and other rural industries, such that amenity and reverse amenity impacts are avoided.	No acceptable outcome is nominated.
Precinct MDR8: Kinross Road and Boundary Road, and Precinct MDR9: Kinross Road	
PO47 Development does not create any additional vehicular access points to Boundary Road or Panorama Drive. New lots are provided with access from internal roads.	**AO47.1** No new access points from lots are provided to Boundary Road or Panorama Drive.
PO48 Development does not create any additional vehicular access points to Kinross Road for a distance of 835m from the intersection of Kinross Road and Boundary Road. New lots are provided with access from internal roads.	**AO48.1** No new access points from lots are provided to Kinross Road for a distance of 835m from the intersection of Kinross Road and Boundary Road.
PO49 Development facilitates the establishment of a safe, permeable, legible and functional movement network that is generally in accordance with Figures 6.2.3.3.12 ~~7~~ road movement network and 6.2.3.3.13 ~~8~~ pedestrian, cycle, public transport and parks network.	**AO49.1** Roads, road closures, intersections, paths, fauna crossings, public transport stops and associated treatments are established in accordance with Figures 6.2.3.3.12 ~~7~~ road movement network and 6.2.3.3.13 ~~8~~ pedestrian, cycle, public transport and parks network.
PO50	**AO50.1**

Performance outcomes	Acceptable outcomes
Development adjoining Boundary Road or Panorama Drive is set back by a sufficient distance to provide for acoustic treatments and substantial landscaping.	A 10m wide setback is provided along Boundary Road. No acceptable outcome is nominated for Panorama Drive.
PO51 Development adjoining Boundary Road or Panorama Drive attenuates noise to a level that achieves a high level of residential amenity. Any acoustic walls: (1) are screened by landscaping; and (2) incorporate breaks to allow for pedestrian and cyclist permeability.	No acceptable outcome is nominated.
PO52 Development adjoining Boundary Road or Panorama Drive provides landscaping to create a heavily vegetated, high visual quality environment.	No acceptable outcome is nominated.
PO53 Kinross Road extending from the intersection at Boundary Road to Goddard Road is designed to operate safely and efficiently and create a grand avenue character.	**AO53.1** Kinross Road is designed as a boulevard style trunk collector having a reserve width of 32m, including: (1) a 6.5m landscaped verge on both sides of the road incorporating native canopy shade trees, utility services and shared pedestrian/bicycle concrete pathways; (2) a 1.5m on-road cycle lane on both sides of the road using differently textured materials; (3) one vehicular lane and breakdown lane, minimum dimension of 5m on both sides of the road; and (4) a 6m central median incorporating native canopy trees and water sensitive urban design features.
PO54 The nominated trunk collector / boulevard providing access to Panorama Drive is designed to operate safely and efficiently and create a grand avenue character.	**AO54.1** The road is designed as a boulevard style trunk collector, having: (1) a minimum road width of 20m; (2) no direct vehicular access from new uses and lots adjoining the trunk collector; and (3) a left in, right in and left out only intersection to Panorama Drive.
PO55 Where development involves nominated esplanade roads treatments adjoining open space, the road design: (1) creates a low speed environment; **(2)** facilitates safe, shared use for vehicles, pedestrians and cyclists;	No acceptable outcome is nominated.

Performance outcomes	Acceptable outcomes
(3) incorporates grassed swales instead of kerb and channel adjacent to the open space; and **(4)** minimises disturbance to vegetation.	
PO56 New streets provide sufficient width for on-street parking on both sides.	**AO56.1** Streets have a minimum width of 18m.
PO57 Development facilitates: (1) a logical pattern of development; (2) minimal requirement for earthworks and retaining walls; **(3)** efficient use of land and infrastructure; **(4)** a mix of affordable housing types; **(5)** net residential densities are not less than 44 dwellings per hectare; **(6)** access to community infrastructure and public transport services at an early stage of development; and **(7)** land for community uses and public services, including open space, education, health, social and emergency services where appropriate.	No acceptable outcome is nominated.
PO58 Development provides for separation and buffering from nearby activities, including primary production, poultry farms and other rural industries, such that amenity and reverse amenity impacts are avoided.	No acceptable outcome is nominated.
PO59 Development is designed to provide safe koala movement opportunities and minimise impediments to a koala traversing the landscape.	No acceptable outcome is nominated.
PO60 To the extent practical, development minimises the amount of clearing and fragmentation of koala habitat.	No acceptable outcome is nominated.

Table 6.2.3.3.2—Maximum building height

Area		Maximum Building Height (m)
MDR1 MDR3	Parkland living, Capalaba Shore Street East, Cleveland	~~22m~~20m
MDR2 MDR4 MDR5	Mount Cotton Road, Capalaba Cleveland Esplanade, Redland Bay	~~19m~~17m
MDR7	Eprapah Creek, South East Thornlands	~~16m~~14m

MDR8	Kinross and Boundary Road	8.5m
Elsewhere in the zone (including MDR6 South East Thomlands and MDR9 Kinross Road)		~~13m~~11m
Elsewhere in the zone, where 2 storey in height.		8.5m

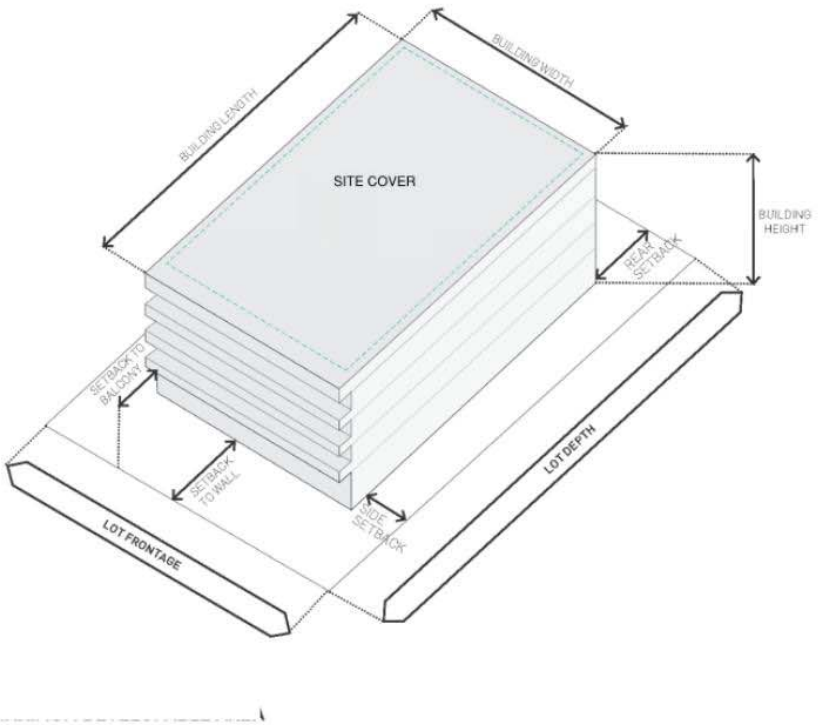


Figure 6.2.3.3.5—typical building envelope for a three storey apartment development

Figure 6.2.3.3.6-front boundary setback to balcony and wall

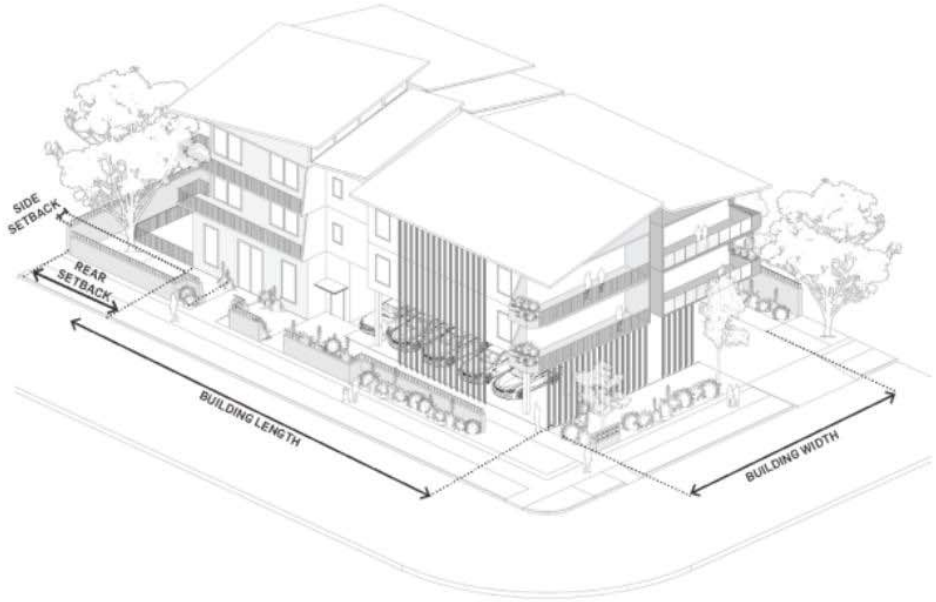


Figure 6.2.3.3.7 — building design and streetscape.

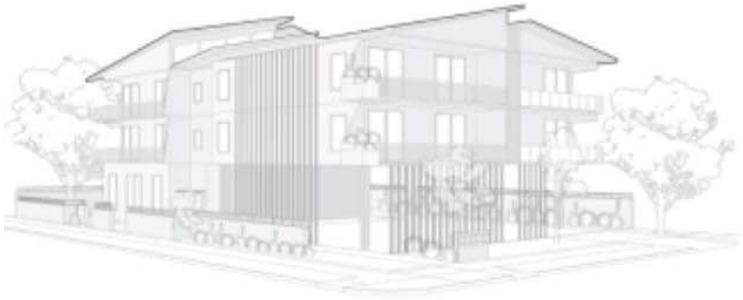


Figure 6.2.3.3.8 — design of roof form.

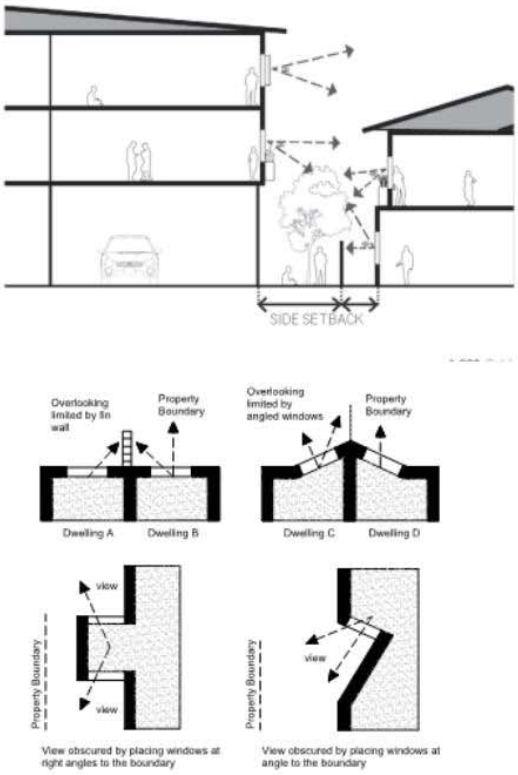


Figure 6.2.3.3.9 — privacy between dwelling units.

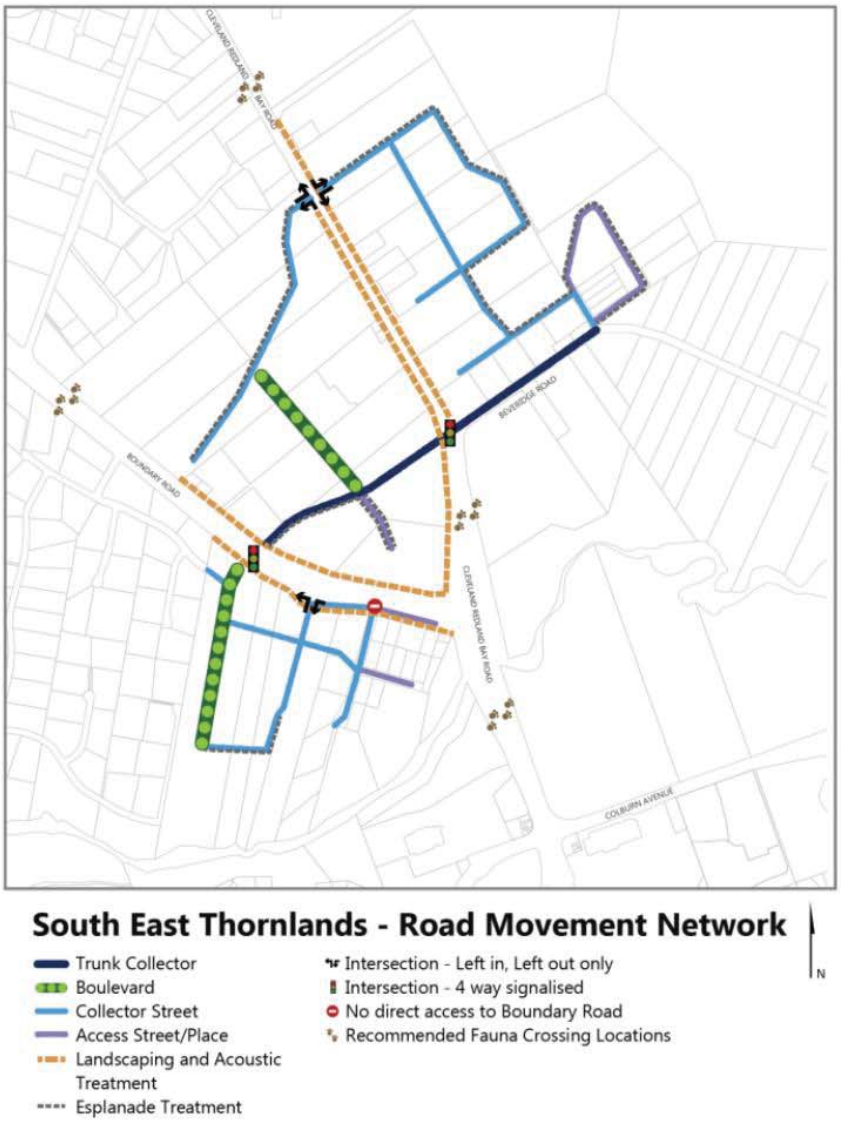


Figure 6.2.3.3.10—South East Thornlands: road movement network

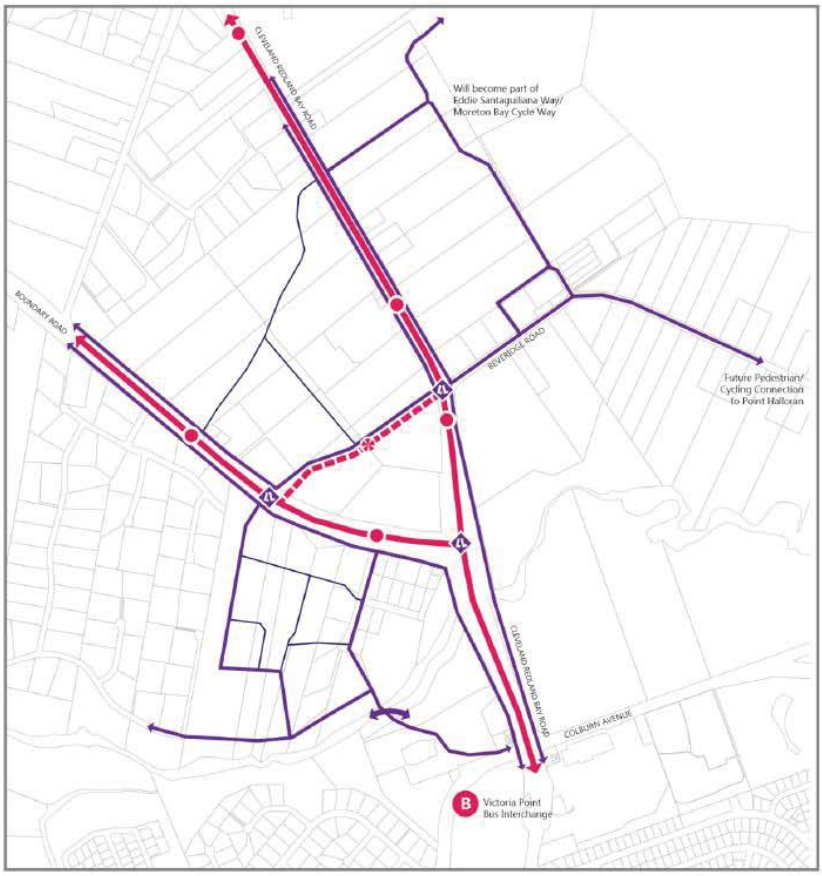


Figure 6.2.3.3.11—South East Thornlands: pedestrian, cycle and public transport network

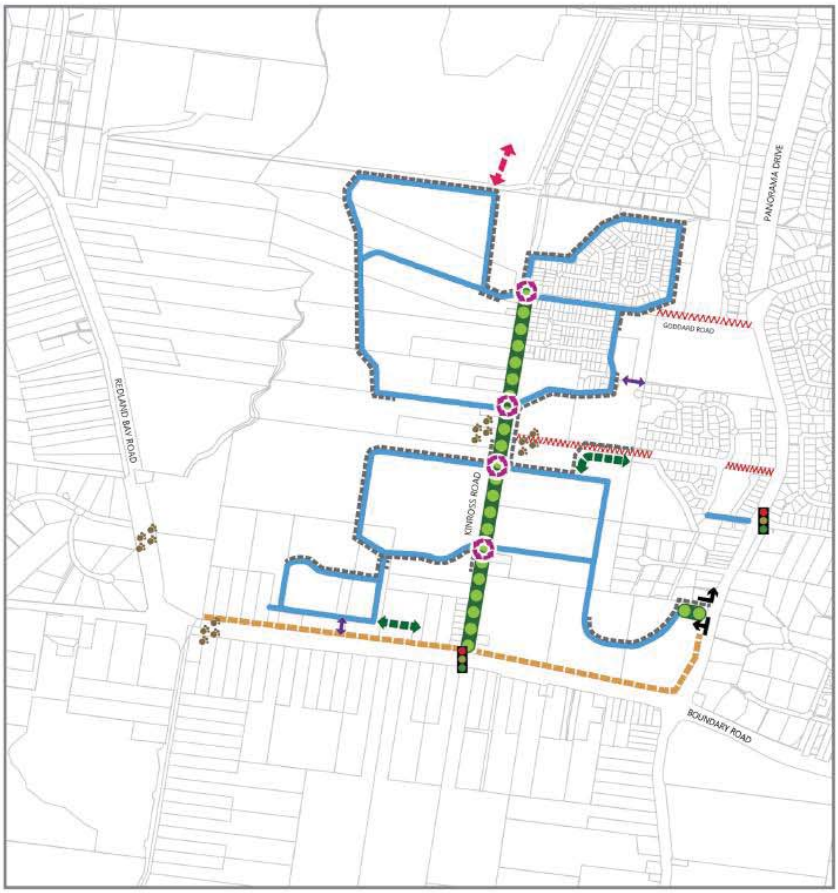


Figure 6.2.3.3.12—Kinross Road: road movement network

Figure 6.2.3.3.13—Kinross Road: pedestrian, cycle, public transport and parks network

City Plan Major Amendment Package (04/20)
Medium Density Residential Code Review
Part 2: Consequential Amendments to the City Plan

Prepared by Redland City Council
November 2020

Note: yellow highlight denotes an addition to the City Plan and ~~strikeout~~ denotes a deletion.

Consequential City Plan Amendments

5.4 Categories of development and assessment—Material change of use

The following tables identify the categories of development and assessment for development in a zone for making a material change of use.

Table 5.4.1—Low-medium density residential zone

Use	Categories of development and assessment	Assessment benchmarks for assessable development and requirements for accepted development
Multiple dwelling **Residential care facility** **Retirement facility** **Rooming accommodation**	**Code assessment**	
	If building is height is 8.5m or less	Low-medium density residential zone code Healthy waters code Infrastructure works code Landscape code Transport, servicing, access and parking code Editor's Note – ~~Council has developed a~~ Planning Scheme Policy 7: Multiple Dwelling Design Guide provides ~~to assist~~ assistance to applicants in achieving high standard design outcomes for multiple dwellings that meet the assessment criteria in this planning scheme. ~~For developments involving multiple dwellings, it is recommended that this document is used as a reference document to support the assessment benchmarks in this planning scheme.~~
Impact assessment		
Any other use not listed in this table. Any use listed in this table and not meeting the description listed in the categories of development and assessment column. Any other undefined use.		The planning scheme

Table 5.4.2—Medium density residential zone

Use	Categories of development and assessment	Assessment benchmarks for assessable development and requirements for accepted development
Multiple dwelling **Residential care facility** **Retirement facility** **Rooming accommodation** **Short term accommodation**	**Code assessment**	
	If building comply with the height does not exceed that detailed in Table 5.4.4	Medium density residential zone code Healthy waters code Infrastructure works code Landscape code Transport, servicing, access and parking code Editor's Note – ~~Council has developed a~~ Planning Scheme Policy 7: Multiple Dwelling Design Guide provides ~~to assist~~ assistance to applicants in achieving high standard design outcomes for multiple dwellings that meet the assessment criteria in this planning scheme. ~~For developments involving multiple dwellings, it is recommended that this document is used as a reference document to support the assessment benchmarks in this planning scheme.~~
Impact assessment		
Any other use not listed in this table. Any use listed in this table and not meeting the description listed in the categories of development and assessment column. Any other undefined use.		The planning scheme

Table 5.4.3—Building height

Area		Maximum Building Height (m)
MDR1 MDR3	Parkland living, Capalaba Shore Street East, Cleveland	~~22m~~ 20m
MDR2 MDR4 MDR5	Mount Cotton Road, Capalaba Cleveland Esplanade, Redland Bay	~~19m~~ 17m
~~MDR3~~	~~Shore Street East, Cleveland~~	~~22m~~
~~MDR4~~	~~Cleveland~~	~~19m~~
~~MDR5~~	~~Esplanade, Redland Bay~~	~~19m~~
MDR7	Eprapah Creek, South East Thornlands	~~16m~~ 14m
MDR8	Kinross and Boundary Road	8.5m
Elsewhere in the zone (including MDR6 South East Thornlands and MDR9 Kinross Road)		~~13m~~ 11m

6.2.2 Low–medium density residential zone code

6.2.2.1 Application

This code applies to development:

(1) within the low-medium density residential zone as identified on the zoning maps contained within Schedule 2 (mapping); and
(2) identified as requiring assessment against the low-medium density residential zone code by the tables of assessment in Part 5 (tables of assessment).

When using this code, reference should be made to section 5.3.2 and, where applicable, section 5.3.3, in Part 5.

6.2.2.2 Purpose

(1) The purpose of the low-medium density residential zone code is to provide for residential areas with a high level of amenity, characterised by a mix of dwelling types including dwelling houses on a range of lot sizes, dual occupancies and smaller scale multiple dwellings.
(2) The purpose of the code will be achieved through the following overall outcomes:
   (a) the low-medium density residential zone consists of dwelling houses, dual occupancies and smaller scale multiple dwellings.
   (b) retirement and residential care facilities and rooming accommodation may be established at a scale that is consistent with other intended housing in the zone;
   (c) lot sizes are not reduced below 400m^2 and have a frontage width of no less than 10m, unless the resultant lots are ~~consistent with the density and character of the surrounding established neighbourhood~~ of a sufficient size to accommodate well designed multiple dwelling development and all required design elements (e.g. articulation of building elements, landscaping, deep planting and open space) or where a townhouse development has been designed to facilitate freehold titling;
   (d) uses which provide a community service function, such as a community use ~~may be~~ are only established where they are small scale, do not significantly detract from residential amenity, do not compromise the role of any centre and are located on a collector or higher order road;
   (e) shops, offices and food and drink outlets are not established;
   (f) individual multiple dwelling development provides a range of dwelling sizes in terms of the number of bedrooms to cater for a range of different households;
   (g) home-based businesses are undertaken where they do not detract from the residential amenity of the area;
   (h) buildings are low-rise and set back from property boundaries to maintain an attractive streetscape character, ~~and~~ protect the privacy and amenity of adjoining residences, provide for natural light and air circulation and provide for landscaping, including deep planting areas;
   (i) reconfiguration establishes a range of lot sizes to increase housing diversity and affordability;
   (j) development incorporates architectural styles and elements that reduce bulk and enhance the visual impact of the built form;
   (k) development achieves a well-designed, architecturally interesting built form through a mix of articulation of building elements, roof forms, screening, textures, materials and colours;
   (l) development makes a positive contribution to the streetscape and character of the locality and strengthens site features, such as views, heritage or significant trees;
   (m) development provides high-quality private and communal open spaces for residents that enhance liveability and meet recreational needs;
   (n) development provides car parking that is integrated into the site and building and does not negatively impact on the site or adjoining sites or the quality and amenity of the streetscape;
   (o) development retains (except where not practicable) or establishes significant trees in deep planting areas ~~wherever practical, development retains significant trees~~ and avoids alteration to natural drainage lines; and

Note – the retention of significant tree is accepted as not practicable where a significant tree due to its location prevents the ability to facilitate a well-designed, integrated and efficient multiple dwelling design outcome consistent with this code.

(p) development creates a safe, comfortable and convenient pedestrian environment within and external to the site, and facilitates a high level of accessibility and permeability for pedestrians and cyclists.

(3) The purpose of the zone will also be achieved through the following additional overall outcomes for particular low-medium density residential precincts:

(a) Precinct LMDR1: South East Thornlands:

(i) urban development provides for a mix of affordable housing types;
(ii) transport networks are coordinated and interconnected to ensure a high level of accessibility for pedestrians, cyclists, public transport and private vehicles;
(iii) development does not compromise or constrain the potential for well designed future urban communities; and
(iv) development achieves a high standard of amenity by mitigating potential conflicts between new residential areas and existing dwelling houses on land zoned Low Density Residential Precinct LDR2.

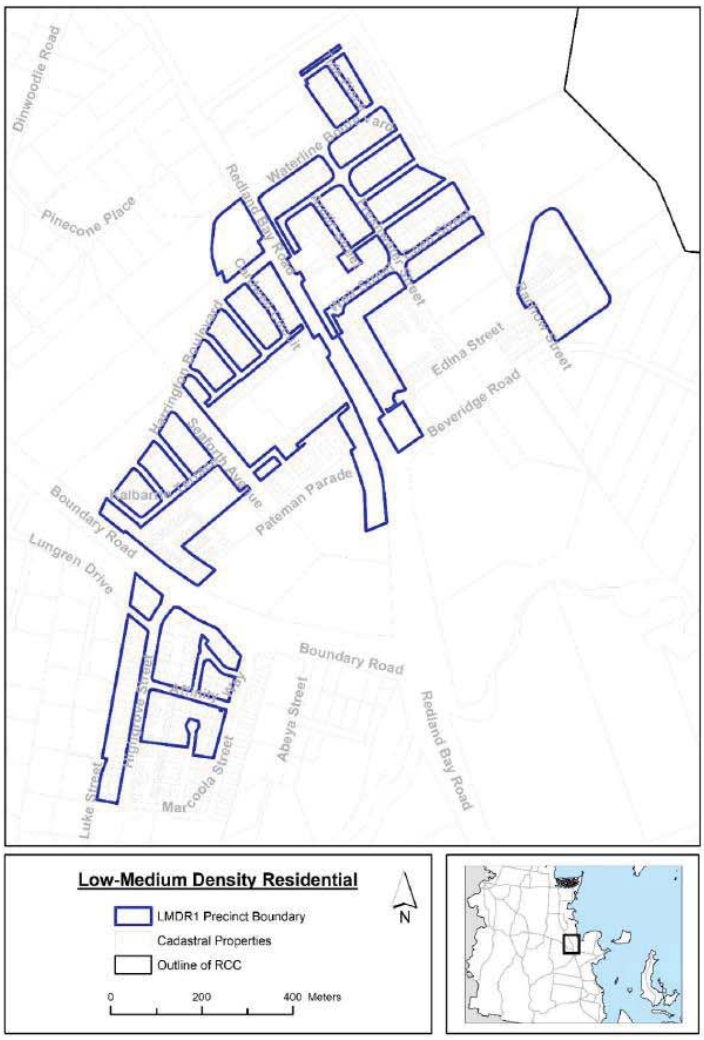


Figure 6.2.2.2.1—Precinct LMDR1: South East Thornlands

(b) Precinct LMDR2: Kinross Road:

(i) urban development provides for a mix of housing types and achieves a minimum net residential density of 15 dwellings per hectare;

(ii) transport networks are coordinated and interconnected to ensure a high level of accessibility for pedestrians, cyclists, public transport and private vehicles;

(iii) development on land fronting Panorama Drive is designed to:

(A) rely on access from the internal street network with no access from Panorama Drive; and

(B) facilitate landscaping and acoustic treatment of Panorama Drive;

(iv) development maintains significant habitat linkages and assists in the safe movement of koalas;

Editor's note—Applicants should be aware that the provisions of the *Planning Regulation 2017*, Schedules 10 (part 10) and 11 also apply to development in this area.

(v) development does not compromise or constrain the potential for well designed future urban communities.

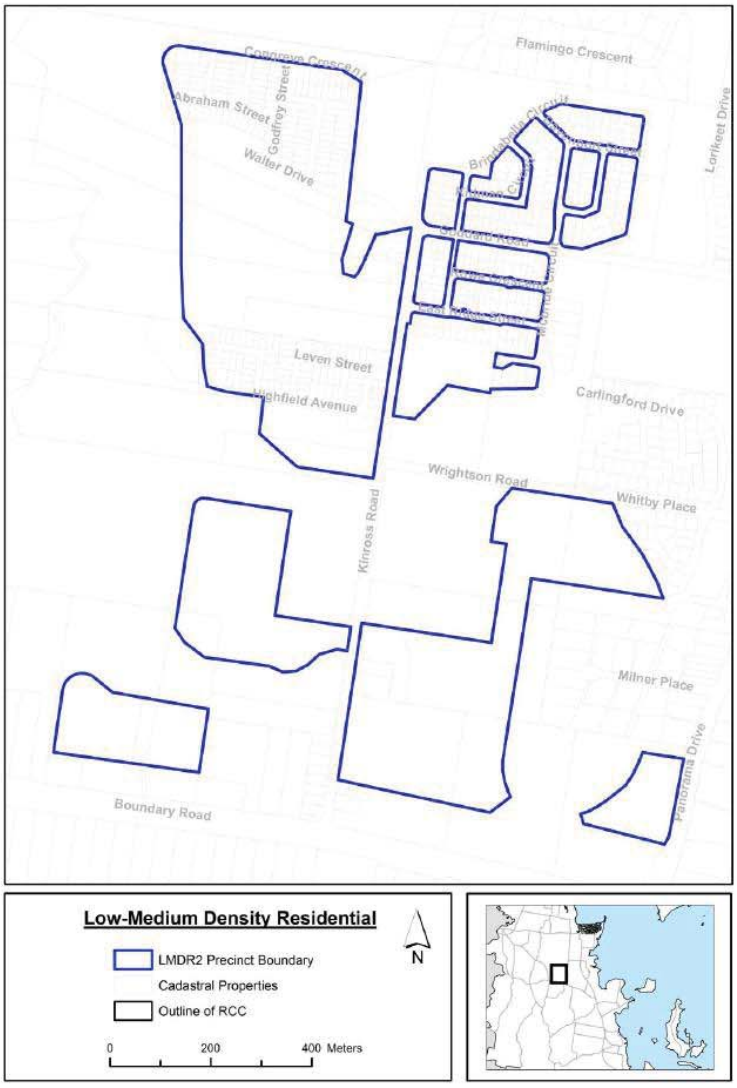


Figure 6.2.2.2.2—Precinct LMDR2: Kinross Road

6.2.2.3 Low–medium density residential zone code – Specific benchmarks for assessment

Table 6.2.2.3.1—Benchmarks for assessable development

Performance outcomes	Acceptable outcomes
For development that is accepted subject to requirements and assessable development	
Dual occupancies	
PO1 ~~To provide~~ Good residential design ~~that~~ promotes the efficient use of a lot, an acceptable amenity to residents, and ~~to~~ facilitates off street parking.	**AO1.1** A Dual occupancy complies with all of the Acceptable Solutions specified in the Queensland Development Code part MP1.3. Note — For the purpose of this AO, a reference to "duplex" in the Queensland Development Code MP1.3 is taken to be "Dual occupancy" as defined by this planning scheme. Note — References to the Queensland Development Code MP1.3 for the purposes of this AO are to be applied as if these provisions applied to a Dual occupancy. Note — The Queensland Development Code MP1.3 indicates that it is only applicable to Class 1 and associated Class 10 buildings. For the purpose of this AO, the class of building is irrelevant, as long as the development meets the definition of "dual occupancy" as defined by this planning scheme. Note — Other zone code provisions will prevail over this acceptable outcome to the extent of any inconsistency.
For assessable development Note – ~~Council has developed a~~ Planning Scheme Policy 7 Multiple Dwelling Design Guide provides ~~to assist~~ assistance to applicants in achieving high standard design outcomes for multiple dwellings that meet the assessment criteria in this planning scheme. ~~For developments involving multiple dwellings, it is recommended that this document is used as a reference document to support the assessment benchmarks in this planning scheme.~~	
Non residential uses	
PO2 Non-residential uses, only occur where they: (1) are for a community care centre or community use ~~service function~~; (2) are located on a major road or are designed to be compatible ~~integrated~~ with residential activities as part of a mixed use development; (3) do not unduly detract from internal or local residential amenity; (4) are small scale; and (5) do not impact on the function of any nearby centre.	No acceptable outcome is nominated.
All ~~R~~ residential development – communal and private open space	
PO3 Development involving an apartment development with 10 or more dwellings or a townhouse development with 20 or more dwellings provides sufficient communal open space that: (1) is readily accessible, usable and safe;	**AO3.1** Communal open space is provided, where development involves: (1) an apartment development with 10 or more dwellings; (a) provides a minimum of 15% of the site area or 100m^2 (whichever is greater) as communal open space;

Performance outcomes	Acceptable outcomes
(2) provides flexible spaces and recreation facilities suitable for a range of activities; (3) is landscaped to provide shade creating a pleasant micro-climate and for visual relief to soften the impact of building and hardstand areas; (4) provides opportunity for casual social interaction; (5) is designed and located to minimise impacts on the amenity of residents of the development and neighbouring properties; (6) is co-located with but separate from deep planting areas (except where not practicable); and (7) minimises impervious ground level areas to improve on-site stormwater filtration. **PO3** ~~Developments involving more than 20 dwellings provide sufficient communal open space that:~~ ~~(1) create useable, flexible spaces suitable for a range of activities; and~~ (2) ~~provide facilities including seating, landscaping and shade.~~	(b) has a minimum dimension of 5m; and (c) communal open space can be provided at ground level, on rooftops, on podiums, by indoor recreational facilities or a combination of these; and (2) a townhouse with 20 or more dwellings (a) provides a minimum of 5% of the site area or a minimum area of 50m² (whichever is greater) as communal open space; and (b) has a minimum dimension of 5m. **AO3.1** ~~Where development involves more than 20 dwellings, a minimum of 5% of the site area or a minimum area of 50m² (whichever is the greater) is provided as communal open space at ground level, with a minimum dimension of 5m.~~
	AO3.2 A communal open space area is designed to: (1) be centrally located to be readily accessible for residents via pedestrian pathways; (2) be co-located with deep planting areas where practicable; (3) ensure that 50% of the principal usable area receives a minimum of two hours of direct sunlight between 9am and 3pm on 21 June; (4) be clearly distinguished from any private open space; (5) be well lit and subject to passive surveillance; (6) provide a range of recreational facilities including, for example; (a) seating for individuals or groups; (b) barbeque areas; (c) play equipment or play areas; and (d) swimming pool, gyms, tennis court, common room or communal gardens; (7) provide a minimum of 15% planted or grassed landscaping, including a planted area with a minimum width of 1.5m where adjoining a neighbouring property; (8) ensure a minimum of 15% of the area is shaded by trees;

Performance outcomes	Acceptable outcomes
	(9) have a finished surface level with a gradient less than 5 percent; (10) have hard and soft landscape treatments; and (11) be clear of all non-recreational structures, including clothes hoists, driveways, water tanks, car parking and garbage storage. Editor's note: landscaping provided in communal open space is separate from deep planting areas.
PO4 Development provides private open space that ~~is~~: (1) is useable in size and shape to meet the needs of a diversity of potential residents; (2) is functional and easily accessible from living or common areas to promotes outdoor living as an extension of the dwelling; (3) is clearly identified as private open space; ~~and~~ (4) provides a high level of privacy for residents and neighbours; and (5) is located to ensure a high level of amenity for occupants.	**AO4.1** For a ground floor dwelling, ground floor private open space is designed and located to ~~provided with~~: (1) predominately face north, east or west; (2) provide a minimum of $16m^2$ if a dwelling in a residential care facility; or (3) provide a minimum area of $25m^2$ for all other dwellings; ~~and~~ with: a. a minimum dimension of 4m and clear of any utilities such as gas, clothes drying facilities, water tanks or air-conditioning units; b. direct access from living or common areas to extend the living space; c. screening or fencing to clearly identify the area as private open space; d. a high level of privacy for residents and neighbours; and e. a high level of acoustic amenity.

Performance outcomes	Acceptable outcomes
	AO4.2 For dwellings above ground level, private balconies are designed and located to: ~~are provided with a minimum area of:~~ (1) predominately face north, east or west; (2) be orientated with the longer side facing outwards, or open to the sky, to optimise daylight access into adjacent rooms; **(3)** provide a minimum of 10m² if a dwelling in a residential care facility; or (4) for all other dwellings: (a) a minimum area of 10m² for a 1 bedroom unit; ~~and~~ or (b) a minimum area of 16m² for a two or more bedroom unit; with: a. a minimum dimension of 3m and clear of any air conditioning unit or drying space; b. direct access from living or common areas to extend living areas; and a. a high level of privacy for residents and neighbours.
	AO4.3 Where clothes drying areas are provided on private balconies, they are screened from public view and do not take up more than 10% of the balcony area.
Apartment diversity	
PO5 Development for an apartment development involving 5 or more dwellings provides a mix of dwelling sizes, in terms of the number of bedrooms, to accommodate a range of household types.	No acceptable solution nominated.
Built form	
PO6 Development occurs on a site that has an area and street frontage width that is sufficient to: (1) accommodate the scale and form of well-designed and articulated buildings; (2) allow buildings to be oriented to the street; (3) provide for communal and private open spaces at ground level; (4) provide safe and convenient vehicle access to the site;	**AO6.1** Development has a minimum site area of 800m² and street frontage width of 20m.

Performance outcomes	Acceptable outcomes
(5) accommodate on-site parking for residents and visitors and vehicle movements for waste and delivery vehicles manoeuvring; (6) deliver substantial landscaping including deep planting areas to retain or establish significant trees; and (7) provide adequate building setbacks to adjoining properties to maintain residential amenity and privacy. ~~**PO5** Development occurs on lots which provide sufficient space for buildings to be oriented to the street.~~	~~The site has a minimum frontage of 20m~~.
PO7 Development provides for interaction with the street and public spaces by: (1) providing dwellings or habitable rooms at ground level; and (2) ensuring ground level dwellings or habitable rooms adjoining a street or public space have direct and safe pedestrian access to the street or public space wherever possible.	No acceptable solution nominated. Figure 6.2.2.3.5 illustrates.
PO8 Site cover: (1) ensures development occurs at a house-compatible scale and in a form that is consistent with the low-medium ~~intensity~~ density character of the locality; (2) mitigates the bulk and scale of development; (3) provides natural light, sunlight and breeze to living and open space areas; (4) provides for privacy between dwelling units for residents and neighbouring properties; (5) supports residential amenity for residents and neighbouring properties (6) provides usable communal and private open space for residents; and (7) allows for substantial open space and landscaping, including deep planting areas to retain or establish significant trees. (1) ~~(2) allows for provision of substantive open space and landscaping on the site.~~	**AO8.1** Site cover: (1) fits in the building envelope (within the acceptable setbacks); and (2) does not exceed 50%. Figure 6.2.2.3.4 illustrates.
PO9 Buildings are low rise and of a house-	**AO9.1** Building height does not exceed 8.5m

Performance outcomes	Acceptable outcomes
compatible scale.	
PO10 Front boundary setbacks (other than basements) that: (1) create an attractive, consistent and cohesive streetscape; (2) result in development not being visually dominant or overbearing with respect to the streetscape; (3) assist in achieving visual privacy to ground floor dwellings from the street; (4) support the location of balconies for casual surveillance of the street and articulation of the building facade; (5) provide for landscaping to soften and screen the built form, including deep planting areas to retain or establish significant vegetation; (6) provides for usable open space for ~~occupants~~ the residents; (7) provide for visitor car parking for apartment development; and (8) where tandem car parking spaces are proposed in front of townhouse garages, they are contained wholly within the property boundary. Editor's note –The provision of tandem car parking spaces is not supported in all locations. Refer to Table 9.3.5.3.2 – Minimum on-site vehicle parking requirements in the Transport, servicing, access and parking code for further information. ~~Building setbacks:~~ ~~(1) maintain appropriate levels of light and solar penetration, air circulation, privacy and amenity for existing and future buildings;~~ ~~(2) do not prejudice the development or amenity of adjoining sites;~~ ~~(3) assist in retaining native vegetation and allow for the introduction of landscaping to complement building massing and to screen buildings;~~ ~~(4) provide useable open space for the occupants; and~~ ~~(5) provide space for service functions including car parking and clothes drying.~~	**AO10.1** Buildings are set back 6m from street frontages.
PO11 Side and rear boundary setbacks: (1) minimise the impacts of development on the amenity and privacy of existing and future adjoining residents;	**AO11.1** ~~At the side boundary:~~ The side boundary setback: (1) provides that a built to boundary wall do not exceed 4.5m in height and 9m

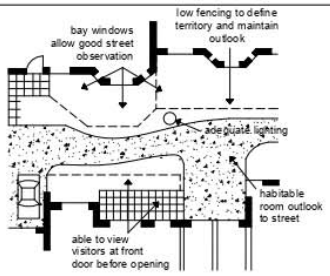
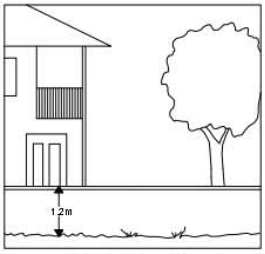
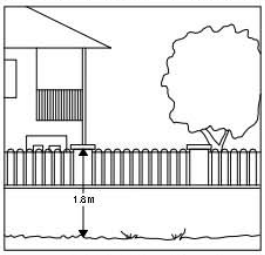
Performance outcomes	Acceptable outcomes
development of adjoining sites; (3) contribute to the pattern of the streetscape consistent with the intended neighbourhood character; (4) support the separation of buildings to provide visual and acoustic privacy; (5) maintain sufficient levels of natural light, and air circulation for residents of the development and adjoining sites; (6) ensure daylight penetrates all sides of the proposed building; (7) provide for communal and private open space areas; (8) provide space for service functions, including clothes drying areas if needed; (9) support the introduction of landscaping to complement building massing, screen buildings and support the privacy of existing and future adjoining residents; and (10) provide for deep planting areas, to retain and protect significant native trees (except where not practicable) and vegetation, or establish large subtropical shade trees. Note – the retention of a significant tree is accepted as not practicable where a significant tree due to its location prevents the ability to facilitate a well-designed, integrated and efficient multiple dwelling design outcome consistent with this code.	in length along any one external boundary; and (2) otherwise, buildings are set back a minimum of: (a) 1.5m for a wall up to 4.5m high; (b) 2m for a wall up to 87.5m high; and ~~(c) 2.5m plus 0.5m for every 3m or part thereof by which the building exceeds 7.5m.~~ (3) for apartment development on a lot 800m² to 1000m², is a minimum of 3m to a balcony or the building wall; or (4) for apartment development on a lot greater than 1000m², is a minimum of 4m to a balcony or the building wall. Note—Where a multiple dwelling in the form of attached or terrace houses is proposed, side setbacks would apply only to boundaries shared with adjoining sites and not to "internal" lot boundaries within the development site.
	AO11.2 The rear boundary setback is: (1) for a townhouse development a minimum of 3m; or (2) for apartment development on a lot 800m² to 1000m², a minimum of 5m to a balcony or the building wall; or (3) for apartment development on a lot greater than 1000m², a minimum of 6m to a balcony or the building wall. ~~The rear boundary setback is a minimum of 4m.~~
PO12 Buildings are designed to: (1) contribute to an attractive streetscape and intended character of the local area; (2) be orientated to the street; (3) incorporate balconies that address street frontages and public spaces; (4) provide modulation and articulation in the building façade and elevations horizontal and vertical profiles; (5) provide projections and recesses in the facade and elevations that reflect changes of internal functions of buildings, including circulation; (6) include variation in building materials, contrasting colours, textures and finishes that emphasise architectural features;	No acceptable outcome is nominated. Figures 6.2.2.3.5 and 6.2.2.3.6 illustrates

Performance outcomes	Acceptable outcomes
(7) use similarly proportioned roof forms, doors, windows and balconies to complement the local character; (8) break up the appearance of large buildings through roof form, materials, projections and recesses that reflect the existing streetscape scale; and (9) articulate building entrances and openings. **~~PO9~~** ~~Design elements contribute to an interesting and attractive streetscape and building through:~~ ~~(5) the provision of projections and recesses in the facade which reflect changes of internal functions of buildings, including circulation;~~ ~~(6) orientation of buildings to the street;~~ ~~(7) variations in material and building form;~~ ~~(8) modulation in the facade, horizontally or vertically;~~ ~~(9) articulation of building entrances and openings; and~~ (10) ~~corner treatments to address both street frontages.~~	
PO13 Development ensures that: (1) corner sites address both street frontages; and (2) key corners are given prominence by changes in articulation, materials, colour/artwork and roof expression.	No acceptable outcome is nominated. Figures 6.2.2.3.5 and 6.2.2.3.6 illustrates.
PO14 Development for services and related structures: (1) are accessible for maintenance; (2) are integrated to blend into the overall development design; and (3) are designed and orientated to not visually dominate the street frontage.	**AO14.1** Services and related structures (such as electricity transformers, fire hydrant and booster assemblies) where located in the front boundary setback: (1) extend for no more than 5m or 10% of the street frontage (whichever is lesser); (2) are orientated towards internal driveways or footpaths; and (3) are located, screened with similar materials to the building or landscaped to not be visually obtrusive when viewed from the street. Figures 6.2.2.3.6 illustrates.
PO15 Multiple dwelling building walls are designed to: (1) be visually interesting through the provision of articulation on the side and rear walls; (2) avoid highly reflective finishes;	**AO15.1** The maximum length of a building wall in any direction is 30m, with a change in the building line every 15m on side and rear walls of plus or minus 1.5m for a length not less than 5m.

Performance outcomes	Acceptable outcomes
(3) break up multiple dwelling development to reduce the scale and bulk of the buildings; and (4) support dual-orientation dwellings to provide for natural cross ventilation.	Figures 6.2.2.3.5 and 6.2.2.3.6 illustrates. Editor's note-full building separation provides a minimum of 6m.
PO16 Design elements promote a subtropical and climate responsive design character through: (1) the use of deep balconies ~~verandahs~~, decks and eaves; (2) orientating habitable room windows, private open space (balconies and terraces) to the north where possible; (3) maximising dwellings with a northern aspect; (4) maximising dual orientation of habitable rooms to provide for natural cross ventilation; (5) integration of buildings within landscape planting and deep planting areas to create a pleasant micro-climate; (6) screening habitable rooms from the western sun, using building and landscape elements.	No acceptable outcome is nominated Editor's note—Applicants should have regard to Subtropical Design in South East Queensland A Handbook for Planners Developers and Decision Makers (2010 Centre for Subtropical Design QUT). Figures 6.2.2.3.5 and 6.2.2.3.6 illustrates.
PO17 The design of roof form, rooftops and building caps: (1) provides an interesting and attractive roof-scape that enhances the architectural distinction of the building and makes a positive contribution to the local character; (2) is articulated to reduce the bulk and scale of a building when viewed from the street (3) considers the ability for discreet placement and optimum orientation of solar panels; (4) maximises solar access for dwellings during winter and provides shade in summer; and (5) incorporates variety in design; and (6) effectively integrates or screens service structures, plant and equipment and provides for the future inclusion of additional plant and equipment; and	**AO17.1** Roof form is designed to: (1) include interesting forms created through pitches, gables, skillions or other features; (2) be articulated to break down the roof and building bulk and scale; (3) provide opportunity for stormwater collection, solar energy and communal open space; (4) be angled to the north and east to maximise solar access in winter; and (5) incorporate hoods and overhangs to shade walls and windows from the summer sun. Figures 6.2.2.3.5 and 6.2.2.3.6 illustrates ~~No acceptable outcome is nominated.~~

Performance outcomes	Acceptable outcomes
(7) avoids highly reflective finishes. ~~**PO11** Roof form assists in reducing the appearance of building bulk by:~~ ~~(1) articulating individual buildings;~~ ~~(2) incorporating variety in design through use of roof pitch, height, gables and skillions; and~~ ~~(3) screening plant and equipment, such as vents, air conditioners or solar energy and storm water collectors.~~	**AO17.2** Rooftop service structures, plant and equipment are: (1) integrated into the building design to be an architectural feature; or (2) discreet or effectively screened; and (3) designed to enable future inclusion of plant and equipment such as telecommunications facilities in an unobtrusive manner.
	AO17.3 Where rooftops are used for communal open space: (1) service structures, plant and equipment are visually and acoustically screened; and (2) landscaping is provided to provide shade and visual relief.
PO18 Parking facilities for apartment development: (1) are contained within a basement level or within the building footprint where located at ground level; (2) are designed to not dominate the streetscape or the building form when viewed from the street, other public spaces and adjoining properties; (3) provide storage for residents; and (1) mitigate amenity impacts on adjoining residents.	**AO18.1** Parking facilities for residents (excludes visitor car parking): (1) are located in a basement level; or (2) within the building footprint at ground level where; (a) landscaped and screened from view from the street, other public spaces and adjoining properties; (b) integrated into the building façade through architectural elements; and (3) provide storage for residents.
	AO18.2 Visitor car parking (excludes resident parking) are located: (1) in a basement level; or (2) at ground level within the building footprint where landscaped or screened from view from the street, other public spaces and adjoining properties; or (3) in the front setback where adjoining the driveway and landscaped or screened from view from the street.
PO19 Parking facilities for townhouse development are located so they do not dominate the	**AO19.1**

Performance outcomes	Acceptable outcomes
streetscape or the building form when viewed from the street.	Vehicle parking structures are located behind the front building alignment.
PO20 Driveways and internal access ways are located and designed to: (1) integrate into the overall building design; (2) define the public and private space; (3) support active street frontages and enhance the streetscape character; (4) incorporate high quality pavement materials, textures and colours to contribute to an attractive and interesting streetscape; (5) minimise visual impact of long driveways through changing alignments and landscaping; (6) be located on secondary/rear frontages, where available; (7) limit the number and width of driveway crossovers to the minimum required; (8) minimise the extent of internal access ways; (9) mitigate impacts on neighbouring properties; (10) maximise the availability of on-street parking; (11) support the retention or establishment of street trees; and (12) allow for refuse collection and street infrastructure.	**AO20.1** Driveways and internal access ways are located and designed: (1) to incorporate high quality pavement materials, textures and colours that are consistent with the overall building design; (2) to be limited to one crossover per street frontage; (3) to provide the minimum width required; (4) to be offset from the side boundary by a minimum of 1m to allow for landscaping; and (5) to minimise and soften visual impacts through a. offset alignment of the driveway and landscaping to screen the view of the driveway from the street; b. a change in alignment within 20m from the street frontage; and c. soft landscaping along the driveway and at the end of the straight alignment. Figure 6.2.2.3.6 illustrates.
PO21 Development provides front fences or walls along street frontages, or public spaces, that create an attractive streetscape by: (1) incorporating a mixture of building materials that complement the design of buildings; (2) providing visual interest and a softening of the visual impact where significant in length; (3) highlighting the entrance to the property.	**AO21.1** Fences or walls along a street front or public space are designed to incorporate a mixture of building materials that complement the design of the building. **AO21.2** Where a fence or wall along street frontages or public spaces exceeds 10m in length, indentations, material variation or soft landscaping (including planter boxes) are incorporated. Figure 6.2.2.3.6 illustrates.
PO22 Development is designed to ~~create an attractive streetscape and~~ discourage crime and anti-social behaviour by: (1) maximising opportunities for casual	**AO22.1** Buildings are designed to have balconies, windows and building openings overlooking streets and other public spaces. Figures 6.2.2.3.1 and 6.2.2.3.5 illustrates.

Performance outcomes	Acceptable outcomes
surveillance of the street, public places, communal open space (where provided) pedestrian and cycle paths, including the primary pedestrian entrance and car parking areas; (2) ensuring spaces are well lit; (3) minimising potential concealment and entrapment opportunities; (4) providing direct movements with clear unobscured sight lines; and (5) having fencing and walls along a street frontage or public space incorporate visually permeable materials and treatments.	 **Figure 6.2.2.3.1—Overlooking** **AO22.2** Fences or walls along a street frontage or public space have a maximum height of: (11) 1.2m where solid; or (12) 1.8m where that portion of the fence above 1.2m high is at least 50% transparent. Figures 6.2.2.3.2 and 6.2.2.3.3 illustrate.  **Figure 6.2.2.3.2—Fencing (1)**  **Figure 6.2.2.3.3—Fencing (2)**
PO23 On elevated or steeply sloping sites: (1) development is sympathetic to the natural landform through the use of terraced or split level building forms that minimise ground level disturbance outside the building footprints; and (2) the understoreys of buildings are screened to maintain the quality of view when viewed from below. ~~; and~~	No acceptable outcome is nominated.

Performance outcomes	Acceptable outcomes
~~(3) buildings avoid highly reflective finishes.~~	
Amenity	
PO24 Privacy between dwelling units on the site and adjoining sites is achieved by effective building design and the location of windows and outdoor open spaces to prevent overlooking into habitable rooms or private open space areas, or through the use of screening devices. Where screening devices are used, they are integrated with the building design.	**AO24.1** Where habitable room windows are directly adjacent to habitable rooms of adjoining dwellings and are within a distance of 9m and within an angle of 45 degrees, privacy is protected by: (1) sill heights being a minimum of 1.5m above floor level; or (2) providing fixed translucent screens, such as frosted or textured glazing, for any part of the window below 1.5m above floor level; or (3) providing fixed external screens. Figure 6.2.2.3.7 illustrates
	AO24.2 Outlook from windows, balconies, stairs, landings, terraces and decks and other private areas, is screened where a direct view is available into the private open space of another dwelling. Screening is achieved by: (1) fixed translucent screens, such as frosted or textured glazing, for any part of the window below 1.5m above floor level; or (2) fixed external screens; or (3) planting that will achieve a minimum of 2m in height at maturity. Figure 6.2.2.3.7 illustrates.
	AO24.3 Where incorporating screening devices, they are: (1) solid translucent screens or perforated panels or trellises that have a maximum of 25 % openings, with a maximum opening dimension of 50mm and are permanently fixed and durable; and (2) offset a minimum of 300mm from the wall of the building. Figure 6.2.2.3.7 illustrates.
PO25 Development provides side and rear fencing that protects the privacy and amenity of adjoining properties.	**AO25.1** Side and rear boundary fences are a minimum of 1.8m in height where adjoining a residential use. Figure 6.2.2.3.7 illustrates.
PO26	No acceptable outcome is provided.

Performance outcomes	Acceptable outcomes
Development is designed to facilitate the retention and establishment of significant trees and street trees (except where not practicable) that: (1) complement and soften the scale and bulk of the built form; (2) support an attractive streetscape; (3) enhance the amenity of residents; and (4) provide natural shade to improve the micro-climate. Note – the retention of a significant tree is accepted as not practicable where a significant tree due to its location prevents the ability to facilitate a well-designed, integrated and efficient multiple dwelling design outcome consistent with this code.	
PO27 On-site landscaping is provided to: (1) contribute to an attractive streetscape (2) enhance the appearance of the development; (3) complement any native vegetation within the site; (4) provide for the retention or establishment of significant trees in deep planting areas (5) provide privacy between on-site dwellings and adjoining properties; (6) provide natural shade to mitigate heat island effects; (7) soften and break up the extent of driveways and internal access ways; and (8) screen unsightly components.	~~No acceptable outcome is nominated~~ **AO27.1** A minimum of 20% of the site is planted or grassed landscaping (rather than hardstand), including 10% of the site for deep planting areas. Editor's note-landscaping that is not deep planting areas can be located in communal open space areas.
	AO27.2 A 2m wide planted landscaped area ~~which is capable of deep planting to sustain mature trees,~~ is provided along the length of any public road frontage.
	AO27.3 Development provides: (1) a minimum 1m wide planted landscaped area on a side boundary where a driveway, or a ground level open parking area, is located adjacent the boundary; and (2) an extended landscaped area of a minimum of 1.5m for every 5m of driveway length.
~~**PO17**~~ ~~Landscaping is provided along the full road frontage.~~	~~**AO17.1**~~ ~~A 2m wide landscaped area which is capable of deep planting to sustain mature trees, is provided along the length of any public road frontage.~~
PO28 Deep planting areas are provided that: (1) are located to retain or establish significant trees to soften the built form; (2) are co-located with communal open space, street trees or deep planting areas on adjoining properties; (3) are accessible to provide informal recreation spaces for residents; (4) are of sufficient size and dimension to support the retention or establishment of	**AO28.1** Deep planting areas are located: (1) within boundary setbacks to soften the built form as viewed from the street and adjoining properties; (2) to retain significant trees; and (3) to co-locate with communal open space, street trees or deep planting areas on adjoining properties.
	AO28.2

Performance outcomes	Acceptable outcomes
significant trees that at maturity complement the scale and height of the built form; (5) are open to the sky with access to light and rainfall; (6) are maintained exclusively for landscaping, with no underground development or infrastructure; (7) reduce urban heat island effects by improving the micro-climate; and (8) provide water quality and quantity benefits from the natural filtration of rainfall into the ground.	Deep planting areas are: (1) a minimum of 10% of the site; (2) a minimum unobstructed dimension of 4m in any direction; and (3) completely open to the sky. Editor's note-the deep planting area acceptable outcome for a minimum of 10% of a site is part of the overall minimum 20% landscaping for a site rather than in addition.
	AO28.3 Deep planting areas are exclusively for landscaping and do not contain: (1) driveways, manoeuvring or hardstand areas and pedestrian paths; (2) surface structure and infrastructure such as water tanks or utilities; and (3) sub-surface structures or infrastructure such as basement car parking and water supply or wastewater infrastructure.
PO29 Development minimises impacts on surrounding residential amenity and provides a high level of on-site amenity for occupants, having regard to noise, odour, vibration, air or light emissions.	No acceptable outcome is nominated.
PO30 Siting and design achieves a high level of amenity for occupants by minimising impacts from noise generating areas, such as streets, driveways, car parking areas, service areas, private and communal open space areas and mechanical equipment.	No acceptable outcome is nominated.
PO31 Development minimises the extent of shadows on useable private open space or public spaces, and provides adequate sunlight to habitable rooms on the site and adjoining land.	**AO31.1** Solar access to habitable rooms and private open space of dwellings: (1) is not less than 3 hours between 9am and 3pm on June 21; or (2) where existing overshadowing by building and fences is greater than this, sunlight is not further reduced by 20%.
PO32 Waste and recycling container storage areas: (1) for apartment development are located within the building footprint; (2) provide an accessible location for residents and waste collection; (3) are not be visible from street and other public spaces; (4) mitigate adverse amenity impacts in terms of odour, noise and visual impacts on residents on-site and residents on adjoining properties.	**AO32.1** Waste and recycling container storage areas are: (1) located within the building footprint for an apartment development; (2) co-located in car parking areas, in a basement or at ground level; (3) separated from open space areas on-site and on adjoining properties; (4) screened or enclosed;

Performance outcomes	Acceptable outcomes
	(5) integrated into the building design, using similar material and finishes; and (6) well ventilated.
~~**PO23** Waste disposal and servicing areas are not visible from public places and do not have adverse amenity impacts on adjoining properties.~~	~~No acceptable outcome is nominated.~~
PO33 Development site layout and design enhances and complements the character of the surrounding neighbourhood and responds to the topography, natural values and development constraints by: (1) integrating into the surrounding residential neighbourhood; (2) providing an attractive and interesting streetscape; (3) taking advantage of the site's natural features like views, vistas, existing vegetation and landmarks; (4) minimising and mitigating impacts on ecological corridors and native vegetation; and (5) minimising alteration to natural topography and drainage lines. Editor's note-this performance outcome can be met through submission of a design concept that demonstrates the design process and includes: (1) site and neighbourhood analysis; (2) building design criteria/principles informed by an opportunities and constraints analysis; and (3) outline how the layout and design responds to the site, streetscape, surrounding neighbourhood and, natural values constraints. ~~**PO22**~~ ~~The site layout responds to topography, natural values and development constraints, such that:~~ (1) ~~impacts on ecological corridors and native vegetation are minimised and mitigated; and~~ (2) ~~alteration to natural topography and drainage lines is minimised.~~	No acceptable outcome is nominated. Editor's note—Applicants will also need to have regard to any relevant overlays applicable to the development site.
Reconfiguration	
PO34 Lots less than 400m^2 and with a frontage width less than 10m are not created.	**AO34.1** Reconfiguration achieves a minimum lot size of 400m^2 and a minimum frontage width of 10m.
PO35 Reconfiguration of a townhouse development to establish freehold lots only occurs where:	No acceptable outcome is nominated.

Performance outcomes	Acceptable outcomes
(1) the townhouse development is designed to be freehold titled by ensuring: (a) the townhouse development remains in compliance with the development approvals following reconfiguration; (b) each townhouse remaining a self-contained residence following reconfiguration; (c) that dependant activities of the development are not separated by freehold titling; (2) the lots are created following construction of the townhouses; (3) equitable sharing and ongoing maintenance of any shared facilities or infrastructure is established. Editor's note- material change of use and reconfiguration applications may be submitted together to allow concurrent assessment.	
Precinct LMDR1: South East Thornlands	
PO36 Development facilitates the establishment of a safe, permeable, legible and functional movement network that is generally in accordance with Figures 6.2.2.3.8 4 road movement network and 6.2.2.3.9 ~~5~~ pedestrian, cycle and public transport network.	**AO36.1** Roads, intersections, paths and public transport stops and associated treatments are established in accordance with Figures 6.2.2.3.8 4 road movement network and 6.2.2.3.9 ~~5~~ pedestrian, cycle and public transport network.
PO37 Where development involves or adjoins nominated boulevard roads, the road design: (1) creates a grand avenue character, being 50m wide for the central boulevard and 25m wide for the southern boulevard; (2) incorporates very wide landscaped medians that are of a sufficient width to support fauna movement; and (3) wide shoulders and verges which accommodate separated pedestrian and cyclist paths and dense landscaping.	**AO37.1** Total width of the boulevard is: (1) central boulevard - 50m; and (2) southern boulevard - 25m.
PO38 Development is set back from Cleveland Redland Bay Road and Boundary Road by a distance sufficient to accommodate substantial landscaping to retain a heavily vegetated character.	**AO38.1** In addition to any widening of the road reserve required by the Queensland Government, development provides a 15m wide strip either side of Cleveland Redland Bay Road and Boundary Road which is densely vegetated by trees and shrubs.
PO39 Development adjoining Cleveland Redland Bay Road and Boundary Road attenuates	No acceptable outcome is nominated.

Performance outcomes	Acceptable outcomes
noise to a level that achieves a high level of residential amenity. Any acoustic walls: (1) are screened by landscaping; and (2) incorporate breaks to allow for pedestrian and cyclist permeability.	
PO40 Development facilitates: (1) a logical pattern of development; (2) efficient use of land and infrastructure; (3) a mix of affordable housing types; (4) access to community infrastructure and public transport services at an early stage of development; and (5) land for community uses and public services, including open space, education, health, social and emergency services where appropriate.	No acceptable outcome is nominated.
PO41 Development provides for separation and buffering from nearby activities, including primary production, poultry farms and other rural industries, such that amenity and reverse amenity impacts are avoided.	No acceptable outcome is nominated.
PO42 Dual occupancies and multiple dwellings are not established on lots that directly adjoin land within the Low Density Residential Precinct LDR2.	No acceptable outcome is nominated.
PO43 Lots that directly adjoin land within the Low Density Residential Precinct LDR2 achieve a minimum site area of 1200m^2 and a minimum frontage width of 25m.	No acceptable outcome is nominated.
Precinct LMDR2: Kinross Road	
PO44 Development does not create any additional vehicular access points to Panorama Drive. New lots are provided with access from internal roads.	**AO44.1** No new access points from lots are provided to Panorama Drive.
PO45 Development does not create any additional vehicular access points to Kinross Road for a distance of 835m from the intersection of Kinross Road and Boundary Road. New lots are provided with access from internal roads.	**AO45.1** No new access points from lots are provided to Kinross Road for a distance of 835m from the intersection of Kinross Road and Boundary Road.
PO46 Development facilitates the establishment of a safe, permeable, legible and functional movement network that is generally in accordance with Figures 6.2.2.3.10 ~~6~~ road	**AO46.1** Roads, road closures, intersections, paths, fauna crossings, public transport stops and associated treatments are established in accordance with Figures 6.2.2.3.10 ~~6~~ road

Performance outcomes	Acceptable outcomes
movement network and 6.2.2.3.11 ~~7~~ pedestrian, cycle, public transport and parks network.	movement network and 6.2.2.3.11 ~~7~~ pedestrian, cycle, public transport and parks network.
PO47 Development adjoining Panorama Drive is set back by a sufficient distance to provide for acoustic treatments and substantial landscaping.	No acceptable outcome is nominated.
PO48 Development adjoining Panorama Drive attenuates noise to a level that achieves a high level of residential amenity. Any acoustic walls: (1) are screened by landscaping; and (2) incorporate breaks to allow for pedestrian and cyclist permeability,	No acceptable outcome is nominated.
PO49 Development adjoining Panorama Drive provides landscaping to create a heavily vegetated, high visual quality environment.	No acceptable outcome is nominated.
PO50 Kinross Road extending from the intersection at Boundary Road to Goddard Road is designed to operate safely and efficiently and create a grand avenue character.	**AO50.1** Kinross Road is designed as a boulevard style trunk collector having a reserve width of 32m, including: (1) a 6.5m landscaped verge on both sides of the road incorporating native canopy shade trees, utility services and shared pedestrian/bicycle concrete pathways; (2) a 1.5m on-road cycle lane on both sides of the road using differently textured materials; (3) one vehicular lane and breakdown lane, minimum dimension of 5m on both sides of the road; and (4) a 6m central median incorporating native canopy trees and water sensitive urban design features.
PO51 The nominated trunk collector / boulevard providing access to Panorama Drive is designed to operate safely and efficiently and create a grand avenue character.	**AO51.1** The road is designed as a boulevard style trunk collector, having: (1) a minimum road width of 20m; (2) no direct vehicular access from new uses and lots adjoining the trunk collector; and (3) a left in, right in and left out only intersection to Panorama Drive.
PO52 Where development involves nominated esplanade roads treatments adjoining open space, the road design: (1) creates a low speed environment; (2) facilitates safe, shared use for vehicles, pedestrians and cyclists;	No acceptable outcome is nominated.

Performance outcomes	Acceptable outcomes
(3) incorporates grassed swales instead of kerb and channel adjacent to the open space; and (4) minimises disturbance to vegetation.	
PO53 To encourage funnelling of fauna to the fauna crossing at Kinross Road, fauna exclusion fencing is provided to lots and roads adjoining the east west open space corridor on the western side of Kinross Road (in the Low medium density residential zoned parts of 68-70 Kinross Road - land no. 130759, lot 2 RP156850, and 64-66 Kinross Road - land no. 130879, lot 15 RP73640).	No acceptable outcome is nominated.
PO54 Development facilitates: (1) a logical pattern of development; (2) minimal requirement for earthworks and retaining walls; (3) efficient use of land and infrastructure; (4) a mix of affordable housing types; (5) net residential densities are not less than 15 dwellings per hectare; (6) access to community infrastructure and public transport services at an early stage of development; and (7) land for community uses and public services, including open space, education, health, social and emergency services where appropriate.	No acceptable outcome is nominated.
PO55 Development provides for separation and buffering from nearby activities, including primary production, poultry farms and other rural industries, such that amenity and reverse amenity impacts are avoided.	No acceptable outcome is nominated.
PO56 Development is designed to provide safe koala movement opportunities and minimise impediments to a koala traversing the landscape.	No acceptable outcome is nominated.
PO57 To the extent practical, development minimises the amount of clearing and fragmentation of koala habitat.	No acceptable outcome is nominated.

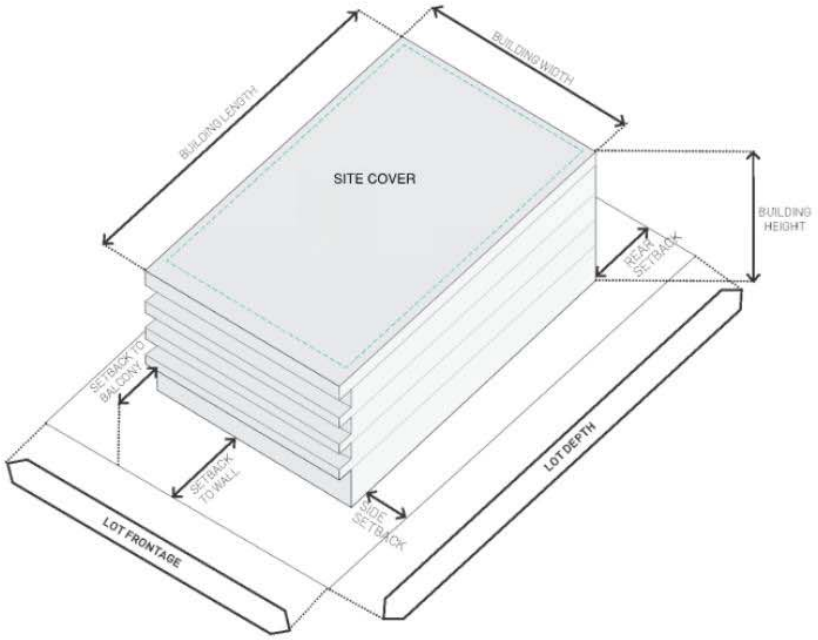


Figure 6.2.2.3.4—typical envelope for a three storey apartment development

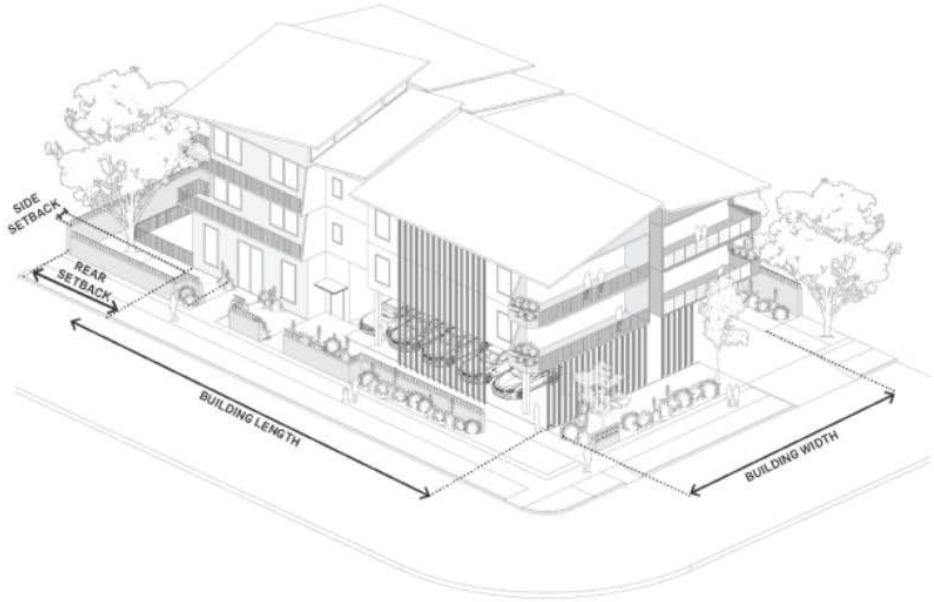
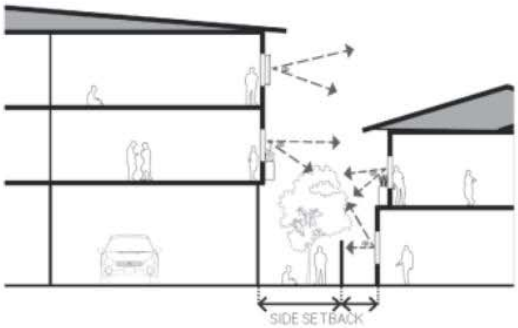


Figure 6.2.2.3.5—building design and streetscape.

Figure 6.2.2.3.6— design of roof form.



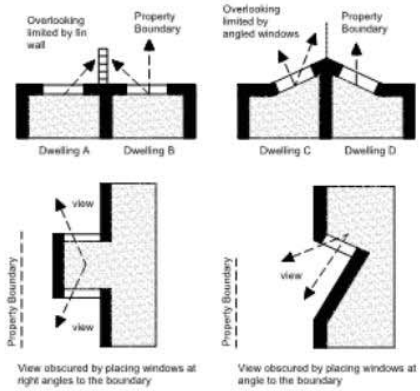


Figure 6.2.2.3.7—privacy between dwelling units.

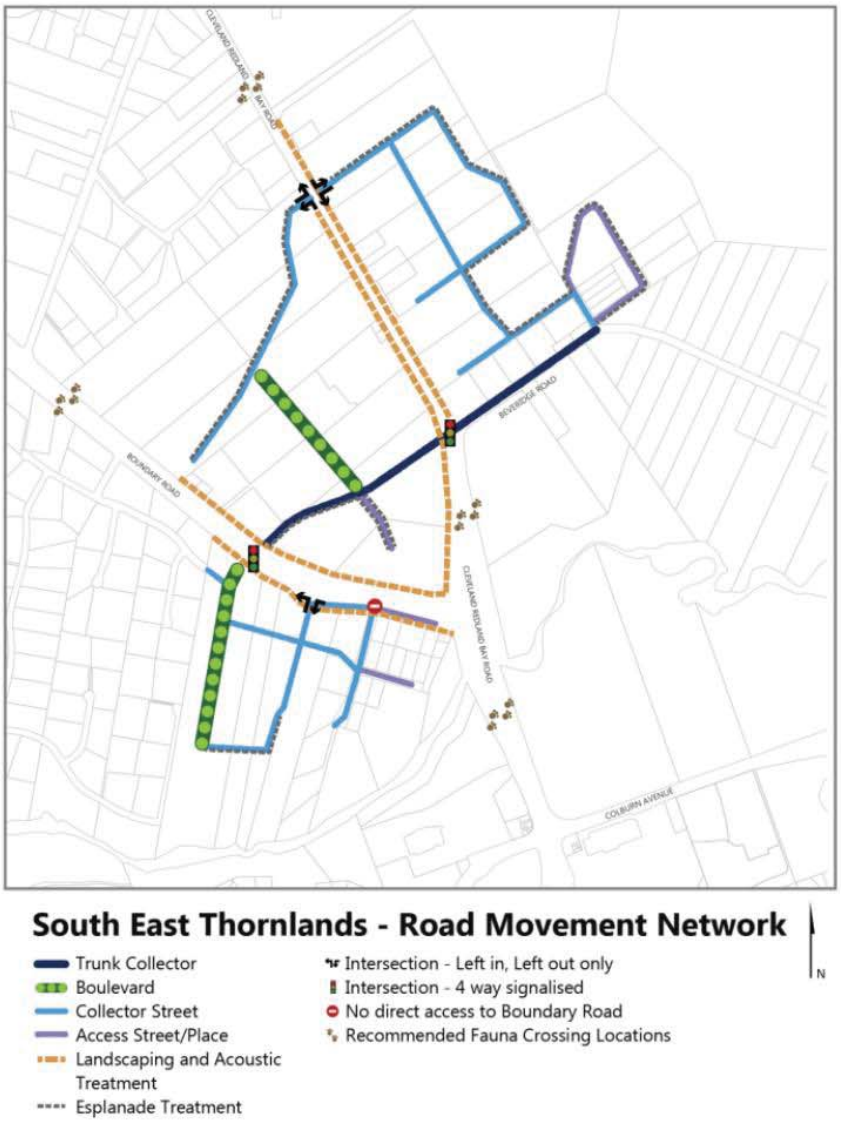


Figure 6.2.2.3.8 ~~1~~—South East Thornlands: road movement network

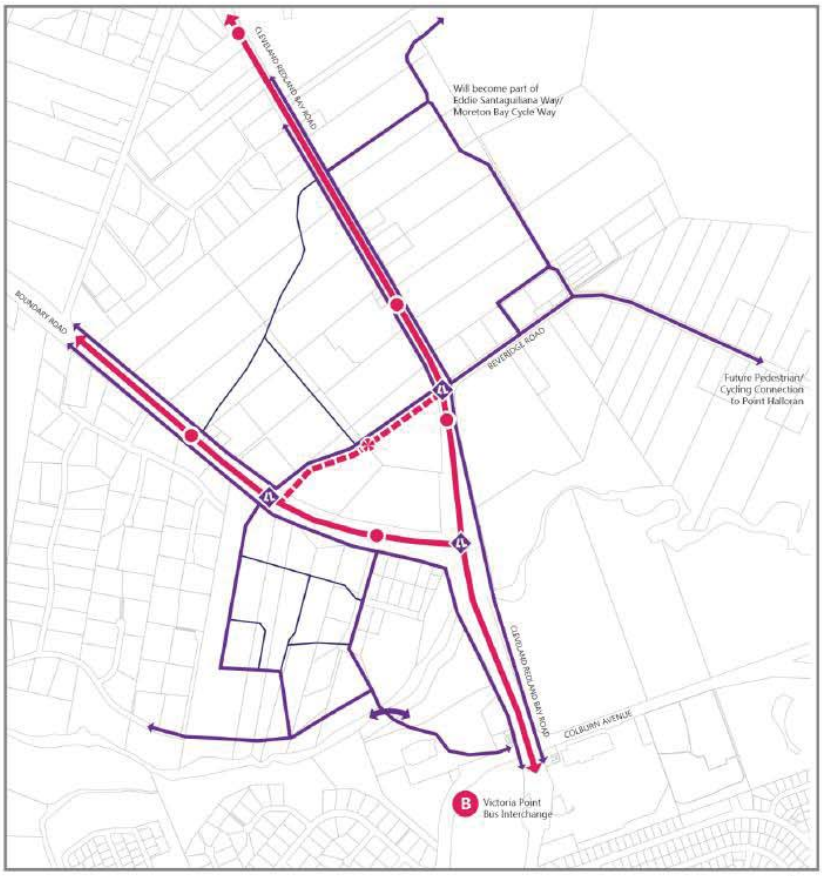


Figure 6.2.2.3.9 2—South East Thornlands: pedestrian, cycle and public transport network

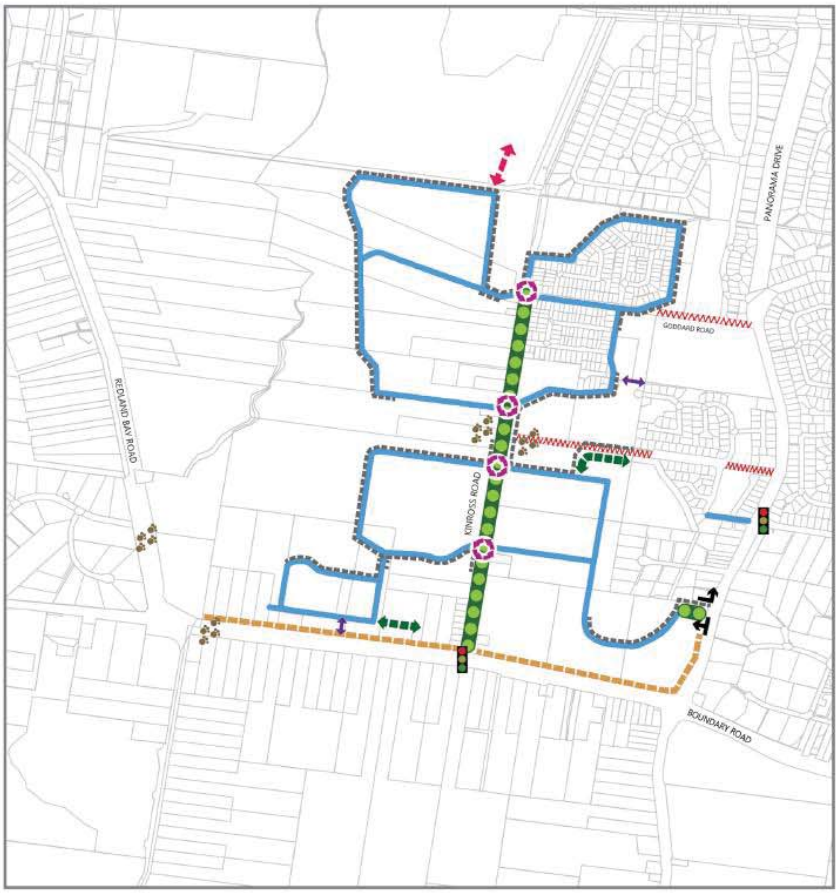


Figure 6.2.2.3.10 3—Kinross Road: road movement network

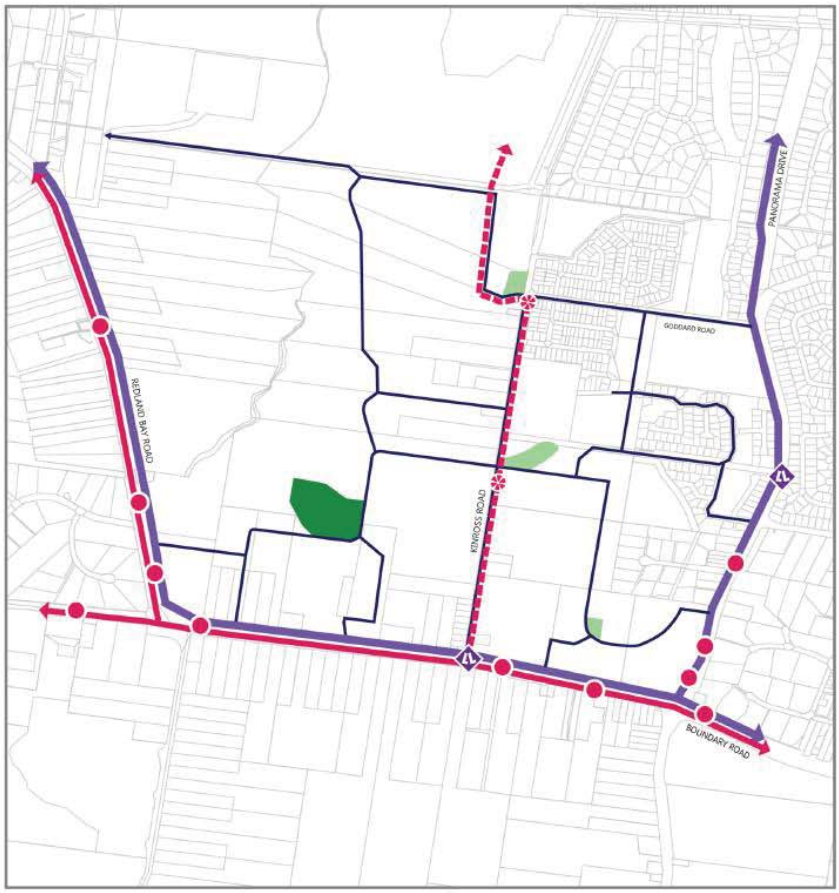


Figure 6.2.2.3.11 4—Kinross Road: pedestrian, cycle, public transport and parks network

6.2.5 Tourist accommodation zone code

6.2.5.1 Application

This code applies to development:

(1) within the tourist accommodation zone as identified on the zoning maps contained within Schedule 2 (mapping); and
(2) identified as requiring assessment against the tourist accommodation zone code by the tables of assessment in Part 5 (tables of assessment).

When using this code, reference should be made to section 5.3.2 and, where applicable, section 5.3.3, in Part 5.

6.2.5.2 Application

(1) The purpose of the tourist accommodation zone code is to provide for short-term accommodation supported by community uses and small-scale services and facilities on North Stradbroke Island.
(2) The purpose of the code will be achieved through the following overall outcomes:
   (a) the tourist accommodation zone predominantly consists of multiple dwellings, short term accommodation and tourist resorts and related support facilities for Point Lookout's holiday population;
   (b) non–residential or non-accommodation uses occur where they are small in scale, provide services primarily for tourists and do not compromise the role of the island's centres. Such uses are provided as part of a mixed use development with tourist accommodation;
   (c) in order to retain larger land parcels for development, further subdivision of land within this zone does not occur;
   (d) buildings are set back from property boundaries to maintain an attractive streetscape character and protect the privacy and amenity of adjoining dwellings;
   (e) development incorporates architectural styles and elements that reduce the visual impact of the built form;
   (f) development design is supported by a contextual site analysis, and is of an appropriate height that maintains views to ridgelines and other prominent local features, and uses a site layout that best provides for equitable access to light and breezes for occupants and neighbours;
   (g) development achieves a well-designed, architecturally interesting built form through a mix of articulation of building elements, roof forms, screening, textures, materials and colours;
   (h) development makes a positive contribution to the streetscape and character of the locality and strengthens site features, such as views, heritage or significant trees;
   (i) development provides high-quality private and communal open spaces for residents that enhance liveability and meet recreational needs;
   (j) development provides car parking that is integrated into the site and building and does not negatively impact on the site or adjoining sites or the quality and amenity of the streetscape;
   (k) development creates a safe, comfortable and convenient pedestrian environment within and external to the site and facilitates a high level of accessibility and permeability for pedestrians and cyclists; and
   (l) development retains (except where not practicable) or establishes significant trees in deep planting areas ~~wherever practical, development retains significant trees~~ and avoids alteration to natural drainage lines.

Note – the retention of significant tree is accepted as not practicable where a significant tree due to its location prevents the ability to facilitate a well-designed, integrated and efficient multiple dwelling design outcome consistent with this code.

6.2.5.3 Tourist accommodation zone code – Specific benchmarks for assessment

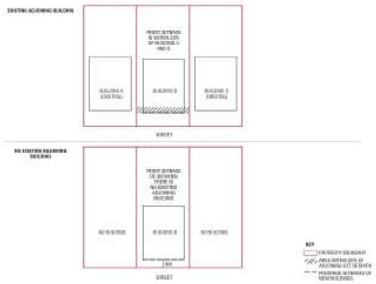
Table 0.1—Benchmarks for assessable development

Performance outcomes	Acceptable outcomes
For development that is accepted subject to requirements and assessable development	
Dual occupancies	
PO1 ~~To provide~~ Good residential design ~~that~~ promotes the efficient use of a lot, an acceptable amenity to residents, and ~~to~~ facilitates off street parking.	**AO1.1** A Dual occupancy complies with all the Acceptable Solutions specified in the Queensland Development Code part MP1.3. Note — For the purpose of this AO, a reference to "duplex" in the Queensland Development Code MP1.3 is taken to be "Dual occupancy" as defined by this planning scheme. Note — References to the Queensland Development Code MP1.3 for the purposes of this AO are to be applied as if these provisions applied to a Dual occupancy. Note — The Queensland Development Code MP1.3 indicates that it is only applicable to Class 1 and associated Class 10 buildings. For the purpose of this AO, the class of building is irrelevant, as long as the development meets the definition of "dual occupancy" as defined by this planning scheme. Note — Other zone code provisions will prevail over this acceptable outcome to the extent of any inconsistency.
For assessable development Planning Scheme Policy 7 Multiple Dwelling Design Guide provides assistance to applicants in achieving high standard design outcomes for multiple dwellings that meet the assessment criteria in this planning scheme. The design principles of the policy are also relevant for other accommodation oriented development in the zone of a similar scale.	
Non residential/accommodation uses	
PO2 Non-residential or non-accommodation uses, only occur where they: (1) are small in scale; (2) are integrated with tourist accommodation activities as part of a mixed use development; (3) do not unduly detract from residential amenity; (4) provide services primarily for tourists; and (5) do not impact on the function of the island's centres.	No acceptable outcome is nominated.
All residential and accommodation uses	
PO3 Land is predominantly used for tourist accommodation. Development supports and does not undermine this intention.	No acceptable outcome is nominated.
PO4 Multiple dwellings intended for permanent residential use are designed to minimise potential conflicts with tourist accommodation and related uses.	No acceptable outcome is nominated.

Performance outcomes	Acceptable outcomes
PO5 Developments involving more than 20 dwellings provide sufficient communal open space to: (1) is readily accessible, usable and safe; (2) provides flexible spaces and recreation facilities suitable for a range of activities; (3) is landscaped to provide shade, creating a pleasant micro-climate and for visual relief to soften the impact of building and hardstand areas; (4) provides opportunity for casual social interaction; (5) is designed and located to minimise impacts on the amenity of residents of the development and neighbouring properties; (6) is co-located with but separate from deep planting areas (except where not practicable); and (7) minimises impervious ground level areas to improve on-site stormwater filtration. ~~(1) create useable, flexible spaces suitable for a range of activities; and~~ ~~(2) provide facilities including seating, landscaping and shade.~~	**AO5.1** Where development involves more than 20 dwellings a minimum of 15% of the site area is provided as communal open space, with a minimum dimension of 5m and a minimum area of $50m^2$. Note—Communal open space can be provided on rooftops, on podiums, ~~or~~ at ground level, by indoor recreation facilities or a combination of these. **AO5.2** A communal open space area is designed to: (1) be centrally located to be readily accessible for residents via pedestrian pathways; (2) be co-located with deep planting areas where practicable; (3) ensure that 50% of the principal usable area receives a minimum of two hours of direct sunlight between 9am and 3pm on 21 June; (4) be clearly distinguished from any private open space; (5) be well lit and subject to passive surveillance; (6) provide a range of recreational facilities including, for example; (e) seating for individuals or groups; (f) barbeque areas; (g) play equipment or play areas; and (h) swimming pool, gyms, tennis court, common room or communal gardens; (7) provide a minimum of 15% planted or grassed landscaping, including a planted area with a minimum width of 1.5m where adjoining a neighbouring property; (8) ensure a minimum of 15% of the area is shaded by trees; (9) have a finished surface level with a gradient less than 5 percent; (10) have hard and soft landscape treatments; and (11) be clear of all non-recreational structures, including clothes hoists, driveways, water tanks, car parking and garbage storage. Editor's note: landscaping provided in communal open space is separate from deep planting areas.
PO6	**AO6.1**

Performance outcomes	Acceptable outcomes
that ~~is~~: (3) is useable in size and shape to meet the needs of a diversity of potential residents; (4) is functional and easily accessible from living or common areas to promotes outdoor living as an extension of the dwelling; (5) is clearly identified as private open space; ~~and~~ (6) provides a high level of privacy for residents and neighbours; and (7) is located and designed to enhance the liveability of residents.	For a ground floor dwelling, ground floor private open space is designed and located to ~~provided with~~: (1) predominately face north, east or west; (2) provide a minimum area of 16m² if a dwelling in a residential care facility; or (3) provide a minimum area of 25m² for all other dwellings; ~~and~~ with: a. a minimum dimension of 4m and clear of any utilities such as gas, clothes drying facilities, water tanks or air-conditioning units; b. direct access from living or common areas to extend the living space; c. screening or fencing to clearly identify the area as private open space; d. a high level of privacy for residents and neighbours; and e. a high level of acoustic amenity.
	AO6.2 For dwellings above ground level, private balconies are designed and located to: ~~are provided with a minimum area of:~~ (1) predominately face north, east or west; (2) be orientated with the longer side facing outwards, or open to the sky, to optimise daylight access into adjacent rooms; (3) provide a minimum of 10m² if a dwelling in a residential care facility; or (4) for all other dwellings: (c) a minimum area of 10m² for a 1 bedroom unit; ~~and~~ or (d) a minimum area of 16m² for a two or more bedroom unit; with: a. a minimum dimension of 3m and clear of any air conditioning unit or drying space; b. direct access from living or common areas to extend living areas; and c. a high level of privacy for residents and neighbours.
	AO6.3 Where clothes drying areas are provided on private balconies they are screened from public view and do not take up more than 10% of the balcony area.

Performance outcomes	Acceptable outcomes
Reconfiguration	
PO7 Existing lot sizes are maintained or increased to facilitate integrated tourist uses.	**AO7.1** Reconfiguration does not result in a smaller lot size.
Built form	
PO8 Buildings are generally two to three storeys, and retain views to vegetated ridgelines.	**AO8.1** Building height is a maximum of ~~13~~ 11m.
PO9 Development occurs on a site that has an area and street frontage width that is sufficient to: (8) accommodate the scale and form of well-designed and articulated multiple dwelling building; (9) allow buildings to be oriented to the street; (10) provide for communal and private open spaces at ground level; (11) provide safe and convenient vehicle access to the site; (12) accommodate on-site parking for residents and visitors, and waste and delivery vehicles manoeuvring; (13) deliver substantial landscaping including deep planting areas to retain or establish significant trees; and (14) provide adequate building setbacks to adjoining properties to maintain residential amenity and privacy. ~~Development occurs on lots which provide sufficient space for buildings to be oriented to the street.~~	**AO9.1** Development has a minimum site area and street frontage width of: (1) 800m² and 20m, for a building 3 storeys or less in height; or (2) 1,000m² and 20m, for a building 4 storeys or greater in height. ~~The site has a frontage which is a minimum of 20m in width.~~
PO10 Site cover: (1) is consistent with the intended medium density character of the area and immediate streetscape (2) mitigates the bulk and scale of development; (3) provides natural light, sunlight and breeze to living and open space areas; (4) provides for privacy between dwelling units for residents and neighbouring properties; (5) supports residential amenity for residents and neighbouring properties (6) provides usable open space for residents; and (7) allows for substantial landscaping, including deep planting areas to retain or establish significant trees.	**AO10.1** Site cover: (1) fits in the building envelope (within the acceptable setbacks); and (2) does not exceed 50% ~~60%.~~ Figure 6.2.5.3.5 illustrates.

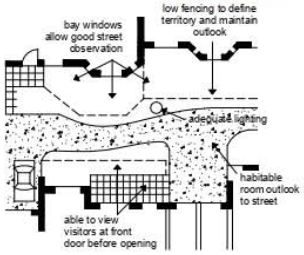
Performance outcomes	Acceptable outcomes
~~(1) allows for provision of substantial open space and landscaping on the site; and~~	
PO11 Front boundary setbacks (other than basements): (2) create an attractive, consistent and cohesive streetscape; (3) result in development not being visually dominant or overbearing with respect to the streetscape; (4) assist in achieving visual privacy to ground floor dwellings from the street; (5) support the location of balconies for casual surveillance of the street and articulation of the building facade; (6) provide for landscaping to soften and screen the built form, including deep planting areas to retain or establish significant vegetation; (7) provides for usable open space for ~~occupants~~ the residents; (8) provide for visitor car parking for apartment development; and (9) where tandem car parking spaces are proposed in front of townhouse garages, they are contained wholly within the property boundary. Editor's note –The provision of tandem car parking spaces is not supported in all locations. Refer to Table 9.3.5.3.2 – Minimum on-site vehicle parking requirements in the Transport, servicing, access and parking code for further information. ~~Building setbacks (other than basements):~~ ~~(10) maintain appropriate levels of light and solar penetration, air circulation, privacy and amenity for existing and future buildings;~~ ~~(11) do not prejudice the development or amenity of adjoining sites;~~ ~~(12) assist in retaining native vegetation and allow for the introduction of landscaping to complement building massing and to screen buildings;~~ ~~(13) provide space for service functions including car parking and clothes drying~~	**AO11.1** Buildings are set back from street frontages: (1) within 20% of the average front setback of adjoining buildings; or (2) where there are no adjoining buildings~~,~~ ~~3m~~; (a) 3m to the building wall and 5.5m for garage doors for townhouse development; or (b) 4m to balconies, eaves, awning or the like and 6m to building walls for apartment development and tourist accommodation. Figures 6.2.5.3.1 and 6.2.5.3.6 illustrates.  **Figure 6.2.5.3.1—Setbacks**
PO12 Side and rear boundary setbacks: (1) minimise the impacts of development on the amenity and privacy of existing and future adjoining residents;	**AO12.1** At the side boundary: (1) a built to boundary wall does not exceed 4.5m in height and 9m in length along any one boundary; and

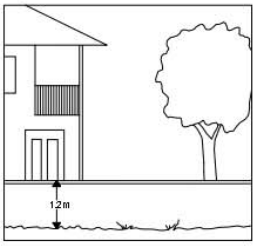
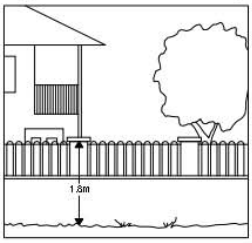
Performance outcomes	Acceptable outcomes
(2) does not prejudice the intended future development of adjoining sites; (3) contribute to the pattern of the streetscape consistent with the intended neighbourhood character; (4) support the separation of buildings to provide visual and acoustic privacy; (5) maintain sufficient levels of natural light, and air circulation for residents of the development and adjoining sites; (6) ensure daylight penetrates all sides of the proposed building; (7) provide for communal and private open space areas;; (8) provide space for service functions, including clothes drying areas if needed; (9) support the introduction of landscaping to complement building massing, screen buildings and support the privacy of existing and future adjoining residents; and (10) provide for deep planting areas, to retain and protect significant native trees (except where not practicable) and vegetation, or establish large subtropical shade trees. Note – the retention of significant tree is accepted as not practicable where a significant tree due to its location prevents the ability to facilitate a well-designed, integrated and efficient multiple dwelling design outcome consistent with this code.	(2) otherwise, buildings are set back a minimum of: (a) 1.5m for a wall up to 4.5m high; (b) 2m for a wall up to 8.5m ~~7.5m~~ high; and (c) 2.0~~.5~~m plus 0.5m for every 3m or part thereof by which the building exceeds 8.5m ~~7.5m~~. Note—Where a multiple dwelling in the form of attached or terrace houses is proposed, side setbacks would apply only to boundaries shared with adjoining sites and not to "internal" lot boundaries within the development site. **AO12.2** The rear boundary setback is a minimum of 5m ~~4m~~.
PO13 Basements are designed to ensure: (1) located outside of deep planting areas; (2) designed to provide natural ventilation for basement car parking that is integrated into the building façade and landscape design; and (3) designed to have a strong relationship between the street and the proposed building and ground level open space. ~~(1) substantial areas of the site are available for deep planting; and~~ (2) ~~a strong relationship between the street and the proposed building and ground level open space.~~	No acceptable outcome is nominated. ~~**AO12.1**~~ ~~Basements are set back by;~~ ~~(1) 2m from the street frontage; and~~ (2) ~~2m from other site boundaries if landscaping is intended to provide screening to neighbouring sites.~~
PO14 Buildings are designed to: (1) contribute to an attractive streetscape and intended character of the local area; (2) be orientated to the street; (3) incorporate balconies that address street frontages and public spaces;	No acceptable outcome is nominated. Figures 6.2.5.3.7 and 6.2.5.3.8 illustrates.

Performance outcomes	Acceptable outcomes
(4) provide modulation and articulation in the building façade and elevations' horizontal and vertical profiles; (5) provide projections and recesses in the facade and elevations that reflect changes of internal functions of buildings, including circulation; (6) include variation in building materials, contrasting colours, textures and finishes that emphasise architectural features; (7) use similarly proportioned roof forms, doors, windows and balconies to complement the local character; (8) break up the appearance of large buildings through roof form, materials, articulation, projections and recesses that reflect the existing streetscape scale; and (9) articulate building entrances and openings. ~~Design elements contribute to an interesting and attractive streetscape and building through:~~ ~~(1) the provision of projections and recesses in the facade which reflect changes of internal functions of buildings, including circulation;~~ ~~(2) variations in material and building form;~~ ~~(3) modulation in the facade, horizontally or vertically;~~ ~~(4) articulation of building entrances and openings; and~~ (5) ~~corner treatments to address both street frontages.~~	
PO15 Development for services and related structures: (1) are accessible for maintenance; (2) are integrated to blend into the overall development design; and (3) are designed and orientated to not visually dominate the street frontage.	**AO15.1** Services and related structures (such as electricity transformers, fire hydrant and booster assemblies.) where located in the front boundary setback: (4) extend for no more than 5m or 10% of the street frontage (whichever is lesser); (5) are orientated towards internal driveways or footpaths; and (6) are located, screened with similar materials to the building or landscaped to not be visually obtrusive when viewed from the street. Figure 6.2.5.3.8 illustrates.
PO16 Multiple dwelling building walls are designed to:	**AO16.1** The maximum length of a building wall in any direction is 30m, with a change in the building

Performance outcomes	Acceptable outcomes
(1) be visually interesting through the provision of articulation on the side and rear walls; (2) avoid highly reflective finishes; (3) break up multiple dwelling development and reduce the scale and bulk of the buildings; and (4) support dual-orientation dwellings to provide for natural cross ventilation.	line every 15m on side and rear walls of plus or minus 1.5m for a length not less than 5m. Figures 6.2.5.3.7 and 6.2.5.3.8 illustrates. Editor's note-full building separation provides a minimum of 6m.
PO17 Design elements promote a subtropical and climate responsive design character through: (1) the use of deep balconies ~~verandahs~~, decks and eaves; (2) orientating habitable room windows, private open space (balconies and terraces) to the north where possible; (3) maximising dwellings with a northern aspect; (4) maximising dual orientation of habitable rooms to provide for natural cross ventilation; (5) integration of buildings with landscape planting and deep planting areas to create a pleasant micro-climate; (6) screening habitable rooms from the western sun, using building and landscape elements; and (7) integration of buildings within landscape planting.	No acceptable outcome is nominated Figures 6.2.5.3.7 and 6.2.5.3.8 illustrates. Editor's note—Applicants should have regard to Subtropical Design in South East Queensland A Handbook for Planners Developers and Decision Makers (2010 Centre for Subtropical Design QUT).
PO18 The design of roof form, rooftops and building caps of apartments: (1) provides an interesting and attractive roof-scape that enhances the architectural distinction of the building and makes a positive contribution to the local character; (2) is articulated to reduce the bulk and scale of a building when viewed from the street (3) considers the ability for discreet placement and optimum orientation of solar panels; (4) maximises solar access for dwellings during winter and provides shade in summer; and (5) incorporates variety in design; and (6) effectively integrates or screens service structures, plant and equipment and provides for the future inclusion of additional plant and equipment; and (7) avoids highly reflective finishes.	**AO18.1** Roof form, rooftops and building caps are designed to: (1) include interesting forms created through pitches, gables, skillions or other features; (2) be articulated to break down the roof and building bulk and scale; (3) provide opportunity for stormwater collection, solar energy and communal open space; (4) be angled to the north and east to maximise solar access in winter; and (5) incorporate hoods and overhangs to shade walls and windows from the summer sun. Figure 6.2.5.3.7 and 6.2.5.3.8 illustrates. ~~No acceptable outcome is nominated.~~

Performance outcomes	Acceptable outcomes
~~Roof form assists in reducing the appearance of building bulk by:~~ ~~(6) articulating individual buildings;~~ ~~(7) incorporating variety in design through use of roof pitch, height, gables and skillions; and~~ (8) ~~screening plant and equipment, such as vents, lift over-runs or solar energy and storm water collectors.~~	
PO19 Development establishes an active interface with adjoining pedestrian spaces by providing physical connections between buildings and between buildings and public places to encourage pedestrian movement.	No acceptable outcome is nominated.
PO20 Parking facilities for apartment development: (1) are contained within a basement level or within the building footprint where located at ground level: (1) are designed to not dominate the streetscape or the building form when viewed from the street, other public spaces and adjoining properties; (2) mitigate amenity impacts on adjoining residents.	**AO20.1** Parking facilities for residents (excludes visitor car parking): (1) are located in a basement level; or (2) within the building footprint at ground level where; (a) landscaped and screened from view from the street, other public spaces and adjoining properties; (b) integrated into the building façade through architectural elements; and (3) provide storage for residents.
	AO20.2 Visitor car parking (excludes resident parking) are located: (1) in a basement level; or (2) at ground level within the building footprint where landscaped or screened from view from the street, other public spaces and adjoining properties; or (3) in the front setback where adjoining the driveway and landscaped or screened from view from the street.
PO21 Parking facilities for townhouse development are located so that they do not dominate the streetscape or the building form when viewed from the street.	**AO21.1** Vehicle parking structures are located behind the front building alignment. ~~building or within a basement level.~~
PO22 Driveways and internal access ways are located and designed to: (1) integrate into the overall building design; (2) define the public and private space; (3) support active street frontages and enhance the streetscape character;	**AO22.1** Driveways and internal access ways are located and designed: (6) to incorporate high quality pavement materials, textures and colours that are consistent with the overall building design;

Performance outcomes	Acceptable outcomes
(4) incorporate high quality pavement materials, textures and colours to contribute to an attractive and interesting streetscape; (5) minimise visual impact of long driveways through changing alignments and landscaping; (6) be located on secondary/rear frontages, where available; (7) limit the number and width of driveway crossovers to the minimum required; (8) minimise the extent of internal access ways; (9) mitigate impacts on neighbouring properties; (10) maximise the availability of on-street parking; (11) support the retention or establishment of street trees; and (12) allow for refuse collection and street infrastructure.	(7) to be limited to one crossover per street frontage; (8) to provide the minimum width required; (9) to be offset from the side boundary by a minimum of 1m to allow for landscaping; and (10) to minimise and soften visual impacts through a. offset alignment of the driveway and landscaping to screen the view of the driveway from the street; b. a change in alignment within 20m from the street frontage; and c. soft landscaping along the driveway and at the end of the straight alignment. Figure 6.2.5.3.8 illustrates.
PO23 Development provides front fences or walls along street frontages, or public spaces, that create an attractive streetscape by: (4) incorporating a mixture of building materials that complement the design of buildings (5) providing visual interest and a softening of the visual impact where significant in length (6) highlighting the entrance to the property	**AO23.1** Fences or walls along a street front or public space are designed to incorporate a mixture of building materials that complement the design of the building. **AO23.2** Where a fence or wall along street frontages or public spaces exceeds 10m in length, indentations, material variation or soft landscaping (including planter boxes) are incorporated. Figure 6.2.5.3.8 illustrates.
PO24 Development is designed to ~~create an attractive streetscape and~~ discourage crime and anti-social behaviour by: (1) maximising opportunities for casual surveillance of the street, public places, communal open space (where provided), pedestrian and cycle paths, including the primary pedestrian entrance and car parking areas; (2) ensuring spaces are well lit; (3) minimising potential concealment and entrapment opportunities; and (4) providing direct movements with clear unobscured sight lines, and (5) having fencing and walls along a street frontage or public space incorporate visually permeable materials and treatments.	**AO24.1** Buildings are designed to have balconies, windows and building openings overlooking streets and other public spaces. Figures 6.2.5.3.2 and 6.2.5.3.9 illustrates.  **Figure 6.2.5.3.2—Overlooking** **AO24.2**

Performance outcomes	Acceptable outcomes
	Fences or walls along a street frontage or public space have a maximum height of: (1) 1.2m where solid; or (2) 1.8m where that portion of the fence above 1.2m high is at least 50% transparent. Figures 6.2.5.3.3 and 6.2.5.3.4 illustrate.  **Figure 6.2.5.3.3—Fencing (1)**  **Figure 6.2.5.3.4—Fencing (2)**
PO25 On elevated or steeply sloping sites: (3) development is sympathetic to the natural landform through the use of terraced or split level building forms that minimise ground level disturbance outside the building footprints; and (4) the understoreys of buildings are screened to maintain the quality of view when viewed from below.	No acceptable outcome is nominated.
Amenity	
PO26 Privacy between dwelling units on the site and adjoining sites is achieved by effective building design and the location of windows and outdoor open spaces to prevent overlooking into habitable rooms or private open space areas or through the use of screening devices. Where screening devices are used, they are integrated with the building design.	**AO26.1** Where habitable room windows are directly adjacent to habitable rooms of adjoining dwellings and are within a distance of 9m and within an angle of 45 degrees, privacy is protected by: (1) sill heights being a minimum of 1.5m above floor level; or (2) providing fixed translucent screens, such as frosted or textured glazing, for any part of the window below 1.5m above floor level; or (3) providing fixed external screens.

Performance outcomes	Acceptable outcomes
	Figure 6.2.5.3.9 illustrates.
	AO26.2 Outlook from windows, balconies, stairs, landings, terraces and decks and other private areas, is screened where a direct view is available into the private open space of another dwelling. Screening is achieved by: (1) fixed translucent screens, such as frosted or textured glazing, for any part of the window below 1.5m above floor level; or (2) fixed external screens; or (3) landscape planting that will achieve a minimum of 2m in height at maturity. Figure 6.2.5.3.9 illustrates.
	AO26.3 Where incorporating screening devices, they are: (1) solid translucent screens or perforated panels or trellises that have a maximum of 25% openings, with a maximum opening dimension of 50mm and that are permanently fixed and durable; and (2) offset a minimum of 300mm from the wall of the building. Figure 6.2.5.3.9 illustrates.
PO27 Development provides side and rear fencing that protects the privacy and amenity of adjoining properties.	**AO27.1** Side and rear boundary fences are a minimum of 1.8m in height where adjoining a residential use. Figure 6.2.5.3.9 illustrates.
PO28 Development is designed to facilitate the retention and establishment of significant trees and street trees (except where not practicable) that: (1) complement and soften the scale and bulk of the built form; (2) support an attractive streetscape; (3) enhance the amenity of residents; and (4) provide natural shade to improve the micro-climate. Note – the retention of significant tree is accepted as not practicable where a significant tree due to its location prevents the ability to facilitate a well-designed, integrated and efficient multiple dwelling design outcome consistent with this code.	No acceptable outcome is provided.

Performance outcomes	Acceptable outcomes
PO29 On-site landscaping is provided to: (1) contribute to an attractive streetscape; (2) enhance the appearance of the development; (3) complement, and where possible retain and add to, any native vegetation within the site; (4) provide for the retention of establishment of significant trees in deep planting areas; (5) create green roofs, walls or other sustainable building elements; (6) provide privacy between on-site dwellings and adjoining properties; and (7) screen unsightly components.	**AO29.1** A minimum of 20% ~~15%~~ of the site is planted or vegetated landscaping (rather than hardstand), including 10% of the site for deep planting areas. Editor's note-landscaping that is not deep planting areas can be located in communal open space areas. **AO29.2** A 2m wide landscaped area ~~which is capable of deep planting to sustain mature trees~~, is provided along the length of any public road frontage. **AO29.3** Development provides: (1) a minimum 1m wide planted landscaped area on a side boundary where a driveway, or a ground level open parking area, is located adjacent the boundary; and (2) an extended landscaped area of a minimum of 1.5m for every 5m of driveway length.
PO30 Deep planting areas are provided that: (9) are located to retain or establish significant trees to soften the built form; (10) are co-located with communal open space, street trees or deep planting areas on adjoining properties; (11) are accessible to provide informal recreation spaces for residents; (12) are of sufficient size and dimension to support the retention or establishment of significant trees that at maturity complement the scale and height of the built form; (13) are open to the sky with access to light and rainfall; (14) are maintained exclusively for landscaping, with no underground development or infrastructure; (15) reduce urban heat island effects by improving the micro-climate; and (16) provide water quality and quantity benefits from the natural filtration of rainfall into the ground.	**AO30.1** Deep planting areas are located: (4) within boundary setbacks to soften the built form as viewed from the street and adjoining properties; (5) to retain significant trees; and (6) to co-locate with communal open space, street trees or deep planting areas on adjoining properties. **AO30.2** Deep planting areas are: (4) a minimum of 10% of the site; (5) a minimum unobstructed dimension of 4m in any direction; and (6) completely open to the sky. Editor's note-the deep planting area acceptable outcome for a minimum of 10% of a site is part of the overall minimum 20% landscaping for a site rather than in addition. **AO30.3** Deep planting areas are exclusively for landscaping and do not contain: (4) driveways, manoeuvring or hardstand areas and pedestrian paths; (5) surface structures and infrastructure such as water tanks or utilities; and (6) sub-surface structures or infrastructure such as basement car parking and water supply or wastewater infrastructure.

Performance outcomes	Acceptable outcomes
~~Driveways and vehicle crossovers are designed to minimise the removal of any existing street trees located within the road reserve.~~	~~No acceptable outcome is nominated.~~
PO31 Development minimises impacts on surrounding residential amenity and provides a high level of on-site amenity for occupants, having regard to noise, odour, vibration, air or light emissions.	No acceptable outcome is nominated.
PO32 Siting and design achieves a high level of amenity for occupants by minimising impacts from noise generating areas, such as streets, driveways, car parking areas, service areas, private and communal open space areas and mechanical equipment.	No acceptable outcome is nominated.
PO33 Development minimises the extent of shadows on useable private open space or public spaces and provides adequate sunlight to habitable rooms on the site and adjoining.	**AO33.1** Solar access to habitable rooms and private open space of dwellings: (1) is not less than 3 hours between 9am and 3pm on June 21; or (2) where existing overshadowing by building and fences is greater than this, sunlight is not further reduced by 20%.
PO34 Waste and recycling container storage areas: (1) for apartment development are located within the building footprint; (2) provide an accessible location for residents and waste collection; (3) are not be visible from street and other public spaces; (4) mitigate adverse amenity impacts in terms of odour, noise and visual impacts on residents on-site and residents of adjoining properties. ~~Waste disposal and servicing areas are not visible from public places and do not have adverse amenity impacts on adjoining properties.~~	**AO34.1** Waste and recycling container storage areas are: (1) located within the building footprint for an apartment development; (2) co-located in car parking areas, in a basement or at ground level; (3) separated from open space areas on-site and on adjoining properties; (4) screened or enclosed; (5) integrated into the building design, using similar material and finishes; and (6) well ventilated. ~~No acceptable outcome is nominated.~~
PO35 Development site layout and design enhances and complements the character of the surrounding neighbourhood and responds to the topography, natural values and development constraints by: (6) integrating into the surrounding residential neighbourhood;	No acceptable outcome is nominated. Editor's note—Applicants will also need to have regard to any relevant overlays applicable to the development site.

Performance outcomes	Acceptable outcomes
(7) providing an attractive and interesting streetscape; (8) taking advantage of the site's natural features like views, vistas, existing vegetation and landmarks; (9) minimising and mitigating impacts on ecological corridors and native vegetation; and (10) minimising alteration to natural topography and drainage lines. Editor's note-this performance outcome can be met through submission of a design concept that demonstrates the design process and includes: (4) site and neighbourhood analysis; (5) building design criteria/principles informed by an opportunities and constraints analysis; and (6) an outline of how the layout and design responds to the site, streetscape, surrounding neighbourhood and natural values constraints. ~~The site layout responds to topography, natural values and development constraints, such that:~~ ~~(7) impacts on ecological corridors and native vegetation are minimised and mitigated; and~~ ~~(8) alteration to natural topography and drainage lines is minimised.~~	

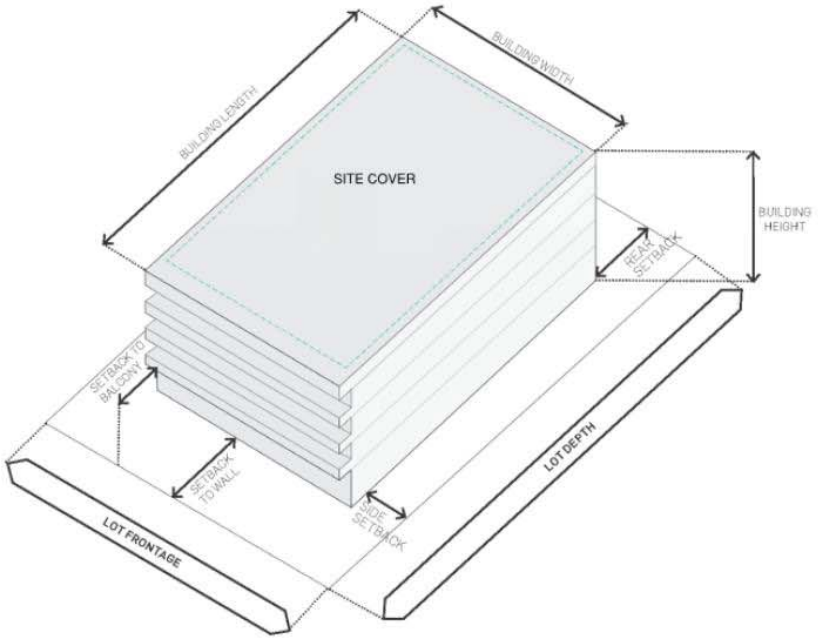


Figure 6.2.5.3.5—typical envelope for a three storey apartment development

Figure 6.2.5.3.6-front boundary setback to balcony and wall

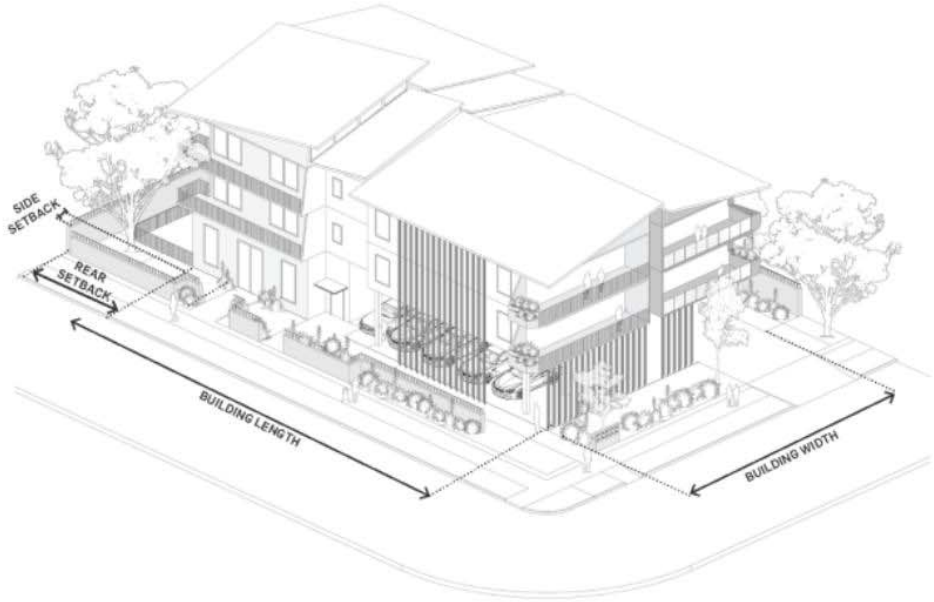


Figure 6.2.5.3.7—building design and streetscape.

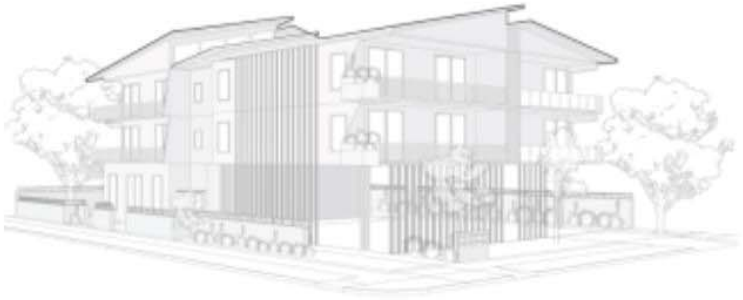
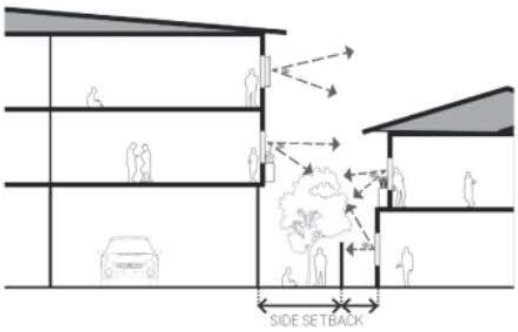


Figure 6.2.5.3.8— design of roof form.



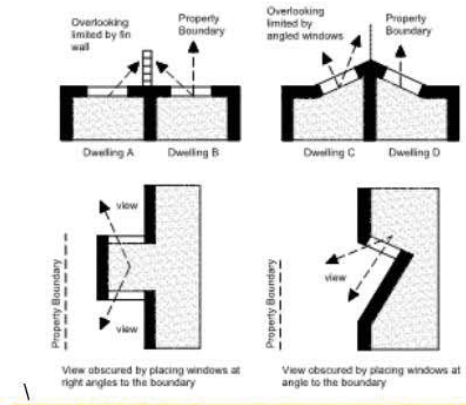


Figure 6.2.5.3.9—privacy between dwelling units.

9.3.4 Reconfiguring a lot code

9.3.4.3 Reconfiguring a lot code – Specific benchmarks for assessment

SC1.1 Table 9.3.4.3.1 – Benchmarks for assessable development

Reconfiguration for a townhouse	
PO52 Reconfiguration of a townhouse development to establish freehold lots only occurs where: (1) the townhouse development is designed to be freehold titled by ensuring: (a) the townhouse development remains in compliance with the development approvals following reconfiguration; (b) each townhouse remains a self-contained residence following reconfiguration; (c) that dependant activities of the development are not separated by freehold titling; (2) the lots are created following construction of the townhouses; (3) equitable sharing and ongoing maintenance of any shared facilities or infrastructure is established like waste collection, water meters. Editor's note- material change of use and reconfiguration applications should be submitted together to allow concurrent assessment.	No acceptable outcome is nominated.

SC1.2 Administrative definitions

Table SC1.2.1Additional administrative terms and their definition

Column 1 Administrative term	Column 2 Definition
Articulation	The treatment of a building form or façade that creates or contributes to visual character and an active frontage. Articulation may include: - vertical and horizontal detail and/or projections - variations in colours, materials, patterns and textures - architectural elements such as openings, entry statements, directional signage, exposure of fittings, distinction between levels of a building, awnings, planters, balconies and stepping of built form
Apartment Development (Multiple Dwelling)	The use of a premises for three or more dwelling units in a building that: - is two or more storeys in height - has a common foyer entrance - has communal facilities including outdoor spaces, car parking and waste storage areas
Building envelope	The three-dimensional extent of where a building and associated structure may be built on a site after consideration of assessment criteria for building height, front, side and rear boundary set-backs, any height transitions and other assessment criteria.
Building footprint	The two-dimensional extent of built development, including balconies, covered private outdoor living areas and enclosed spaces but excluding the part of a building or structure that is: - an eave or a roof; or - a sunhood or the like attached to the wall of a building or structure to provide shade or shelter to the wall.
Townhouse Development (Multiple Dwelling)	The use of a premises for three or more dwelling units that: - does not have a dwelling above or below it - has individual dwelling unit entrances - has individual car parking and waste storage areas

Schedule 6 Planning scheme policies

The table below lists all the planning scheme policies applicable to the planning scheme area.

SC6.1 Planning scheme policy index

Table SC6.1.1— Planning scheme policy index

Planning scheme policy title
Planning Scheme Policy 1 - Environmental significance
Planning Scheme Policy 2 – Infrastructure works
Planning Scheme Policy 3 – Flood and storm tide hazard
Planning Scheme Policy 4 – Landslide hazard
Planning Scheme Policy 5 – Structure plans
Planning Scheme Policy 6 – Environmental emissions
Planning Scheme Policy 7 – Multiple dwelling design

SC6.8 Planning Scheme Policy 7 - Multiple dwelling design

To access Planning Scheme Policy 7- Multiple dwelling design, click here.

SC6.8 PLANNING SCHEME POLICY 7 – MULTIPLE DWELLING DESIGN

Level 4, 51 Alfred Street
Fortitude Valley QLD 4006

Introduction

CDM Smith have assessed the development feasibility of eight multiple dwelling development scenarios on four sites under a revised draft Medium Density Residential zone code. The scenarios assessed are as follows:

- **Scenario 1a:** 3 storey apartment on 819m^2 Medium Density Residential zoned lot;
- **Scenario 1b:** 3 storey apartment development on 819m^2 Medium Density Residential zoned lot, comprising ground floor car parking and two levels of one, two and three bedroom apartments;
- **Scenario 1c:** 3 storey apartment development on 819m^2 Medium Density Residential zoned lot, comprising ground floor car parking and two levels of one and two bedroom apartments;
- **Scenario 2a:** 3 storey apartment on amalgamated 1,012m^2 Medium Density Residential zoned lot;
- **Scenario 2b:** 4 storey apartment on amalgamated 1,012m^2 Medium Density Residential zoned lot;
- **Scenario 3:** Townhouse development on 809m^2 Medium Density Residential zoned lot;
- **Scenario 4a:** Townhouse on 1,639m^2 Medium Density Residential zoned lot with community title; and
- **Scenario 4b:** Townhouse on 1,639m^2 Medium Density Residential zoned lot with freehold title (i.e. same development with different tenure).

The development feasibility assessment has considered the following cost and benefit streams:

- Project costs, which are likely to include land acquisition costs, stamp duty on land acquisition costs, demolition of existing use (if applicable), infrastructure charges, construction costs (including building construction, car parking construction, landscaping and contingency allowance), consultant and design fees, marketing costs and financing costs; and
- Project benefits, i.e. the sale of apartments / townhouses.

Assumptions Used in the Feasibility Assessment

The development feasibility has made assumptions relating to a range of costs and benefits for each scenario, including:

- Land acquisition costs;
- Demolition of existing land use;
- Infrastructure charges;
- Building construction costs;
- Landscaping construction costs;
- Communal open space construction costs;
- Carparking construction costs;
- Consultant and design fees;
- Selling costs;

- Financing costs; and
- Sales of apartments / townhouses.

Land Acquisition Costs

The cost of acquiring appropriate land for the developments outlined in each scenario involves the purchase of the land in addition the transfer duty payable on the value of the purchase.

The sites under assessment for Scenario 1, Scenario 3 and Scenarios 4a and 4b were each occupied by an older run down detached dwelling within the medium density residential zone. Recent property sales transactions were identified for two of these three sites, which were both purchased for $500 - $550 per square metre. The assessment has conservatively assumed the sites under assessment for Scenario 1, Scenario 3 and Scenario 4a and 4b were purchased for $550 per square metre (at the upper end of the range identified), as no significant price differential was identified for medium density residential zoned land between the suburbs in which the sites are contained[1].

In the case of Scenarios 2a and 2b, the purchase of two allotments, each 506sqm in size and occupied by an older run down detached dwelling is required to create the development allotment. The assessment has assumed that a higher purchase price of $650 per square metre would be required to achieve land assembly for this site.

The transfer duty payable has been calculated based on Queensland transfer duty rates.

Total land acquisition costs have been estimated to range between $458,948 (Scenario 3) and $935,040 (Scenario 4a and 4b).

Table 1 details the assumed land acquisition costs under each scenario, including a breakdown of the land purchase price and transfer duty payable.

[1] We have rounded purchase prices of the relevant allotments to protect confidentiality around the selected sites under assessment.

Table 1 Land Acquisition Costs by Scenario ($)

	Allotment Size (sqm)	Assumed Acquisition Cost ($/sqm)	Land purchase price	Transfer duty payable	Total Land Acquisition Costs
Scenario 1a	819	$550	$450,450	$14,191	$464,641
Scenario 1b	819	$550	$450,450	$14,191	$464,641
Scenario 1c	819	$550	$450,450	$14,191	$464,641
Scenario 2a	1,012	$650	$657,800	$22,626	$680,426
Scenario 2b	1,012	$650	$657,800	$22,626	$680,426
Scenario 3	809	$550	$444,950	$13,998	$458,948
Scenario 4a	1,639	$550	$901,450	$33,590	$935,040
Scenario 4b	1,639	$550	$901,450	$33,590	$935,040

Source: CDM Smith Analysis (2020) and Queensland Government Transfer Duty Rates (2020)

Demolition of Existing Land Use

The sites identified for development all had an existing run down residential dwelling on site. Therefore, in order to redevelop the land for multi-unit dwellings, the existing use must be demolished. Rawlinsons Australian Construction Handbook (2018 Edition 36) estimates a range of construction costs, including indicative demolition costs per square metre (sqm). The demolition of a single storey residential dwelling is assumed to be approximately $50 per square metre.

Therefore, based on this costing rate and the size of each parcel of land for development, the estimated demolition cost range from $40,450 (Scenario 3) to $81,950 (Scenario 4a and 4b). The estimated demolition costs by scenario are detailed in Table 2.

Table 2 Estimated Demolition Cost by Scenario ($)

	Site Size (sqm)	Cost ($)
Scenario 1a	819	$40,950
Scenario 1b	819	$40,950
Scenario 1c	819	$40,950
Scenario 2a	1,012	$50,600
Scenario 2b	1,012	$50,600
Scenario 3	809	$40,450
Scenario 4a	1,639	$81,950
Scenario 4b	1,639	$81,950

Source: Rawlinsons Australian Construction Handbook (2018)

Assumed Product Mix on Each Site

The revised Medium Density Zone code provides a range of assessment criteria relating to dwelling diversity, site cover, landscaping, parking and communal open space which has informed our assumptions relating to the built form on each site. The dwelling diversity criteria outlines a preferred, as opposed to mandatory, product mix for townhouse and apartment developments within Redland City Council. Redland City Council has advised that the

dwelling diversity mix is particularly important to test for apartments with a 60% two bedroom and 40% three bedroom mix provided based on approved applications for apartments. The dwelling diversity mix can however be varied for townhouses to only consider three bedroom townhouse development. This approach was suggested on the basis that three bedroom townhouses are the predominate townhouse size in Redland City and would likely continue to be the predominant townhouse size even with a suggested dwelling diversity mix included the Medium Density Zone code. It is understood that all other assessment criteria must be met for the purposes of this feasibility assessment.

Advice from Council has indicated that three storeys are permitted for all scenarios, with the exception of Scenario 2b, where a four storey development is to be assessed.

Table 3 outlines the quantifiable assessment criteria relating to dwelling diversity, site cover, landscaping, parking and communal open space.

Table 3 Quantifiable Assessment Criteria

Criteria	Product Type	Criteria
Dwelling diversity	Townhouse	Development for a townhouse involving 5 or more dwellings ensures that 20% of dwellings have a different number of bedrooms than other dwellings
	Apartment	Development for an apartment involving 5 or more dwellings ensures 40% of dwellings have a different number of bedrooms than other dwellings
Site cover	Townhouse	60% site cover
	Apartment	50% site cover
Landscaping	Townhouse	20% of site area, including 10% deep planting area with a minimum dimension of 4m
	Apartment	
Communal Open Space	Townhouse	20 or more dwellings (a) provides a minimum of 5% of the site area or a minimum area of 50sqm (whichever is greater) as communal open space; and (b) has a minimum dimension of 5m.
	Apartment	10 or more dwellings (a) provides a minimum of 15% of the site area or a minimum area of 100sqm (whichever is greater) as communal open space, with a minimum of 10% or 75sqm (whichever is greater) located on the ground level; and (b) has a minimum dimension of 5m.
Carparking	Townhouse / Apartment	1 visitor space per 10 units; plus 1 space per 1 bedroom unit; or 1.5 spaces per 2+ bedroom unit; or 2 spaces per 3+ bedroom unit.

Source: Data provided by Redland City Council

Property market research was conducted to determine the average size of units and townhouses by number of bedrooms to inform our assessment. This research found that on average a townhouse was larger than apartments,

regardless of the number of bedrooms, and that apartments increase in square meterage as the number of bedrooms increases. The following average sizes for unit and townhouse development were adopted for the analysis:

- One bedroom units: 70sqm;
- Two bedroom units: 90sqm;
- Three bedroom units: 110sqm; and
- Three bedroom townhouses: 130 sqm.

In the case of units, the assumed floor plates include an allowance for internal communal walkways / stairs. The average size for a townhouse relates to the liveable areas, excluding the garage component to be delivered on the ground floor.

The quantifiable assessment criteria outlined in Table 3, along with the assumed average sizes by product type have been utilised to identify the product mix that can be accommodated on each site whilst maximising site cover, as detailed below:

- Scenario 1a: 12 units, comprising six two bedroom apartments and six three bedroom apartments;
- Scenario 2a: 15 units, comprising nine two bedroom apartments and six three bedroom apartments;
- Scenario 2b: 20 units, comprising 12 two bedroom apartments and eight three bedroom apartments;
- Scenario 3: 7 three storey townhouses (two storeys of living plus ground floor double garage); and
- Scenario 4: 15 three storey townhouses (two storeys of living plus ground floor double garage).

Table 4 outlines the number of apartments or townhouses that have been assumed for each site, including an overview of the site cover of the building footprint for each scenario.

Table 4 Number of Apartments or Townhouses by Scenario

	Maximum Allowable Site Cover (sqm)	Actual Site Cover for Development (sqm)	Number of Storeys (unit developments)	Number of units / townhouses			
				2 Bedroom Apartments	3 Bedroom Apartments	3 Bedroom Townhouses	Total
Scenario 1a	409.5	400	3	6	6	-	12
Scenario 2a	506.0	490	3	9	6	-	15
Scenario 2b	506.0	490	4	12	8	-	20
Scenario 3	485.4	390	-	-	-	7	7
Scenario 4a	983.4	910	-	-	-	15	15
Scenario 4b	983.4	910	-	-	-	15	15

Note: Townhouse scenarios assume 65sqm per floor.
Source: CDM Smith Analysis (2020)

Redland City Council requested that two additional scenarios be investigated for the Scenario 1 site that vary the dwelling mix and only use ground level car parking (no basement), namely:

- **Scenario 1b:** Three storey development, comprising ground floor car parking and two floors of units, with the following development mix on each floor:
  - 1 x 1 bedroom unit;
  - 2 x 2 bedroom unit; and

  - 1 x 3 bedroom unit;

- **Scenario 1c:** Three storey development, comprising ground floor car parking and two floors of units, with the following development mix on each floor:
  - 2 x 1 bedroom unit; and
  - 3 x 2 bedroom unit.

The additional Scenario 1c suggested by Redland City Council slightly exceeds the allowable maximum site coverage of 50% by 0.5m^2 and as such does not satisfy the quantifiable assessment criteria.

Table 5 outlines the number of apartments to be accommodated under Scenario 1b and 1c, including an overview of the site cover of the building footprint for the additional scenarios requested by Redland City Council.

Table 5 Number of Apartments or Townhouses for the Additional Scenarios

	Maximum Allowable Site Cover (sqm)	Actual Site Cover for Development (sqm)	Number of Storeys (unit developments)	Number of units / townhouses			
				1 Bedroom Apartments	2 Bedroom Apartments	3 Bedroom Apartments	Total
Scenario 1b	409.5	360	2	2	4	2	8
Scenario 1c	409.5	410	2	4	6	-	10

Source: CDM Smith Analysis (2020)

Infrastructure Charges

Indicative infrastructure charges have been calculated based on the potential number of dwellings on each site, existing site use and infrastructure charge rates provided by Redland City Council, which are as follows:

- One or two bedroom townhouse or apartment: $20,956 per dwelling;
- Three or more bedroom townhouse or apartment: $29,339 per dwelling; and
- The credit for an existing use: $29,339 per dwelling.

The use of the sites assessed in Scenario 1a, 1b, 1c, 3, 4a and 4b is an existing dwelling, whereas the existing use in Scenario 2a and 2b is two existing dwellings.

The estimated infrastructure charges for each scenario range between $155,075 (Scenario 1b) and $410,746 (Scenario 4a and 4b), as detailed in Table 6.

Table 6 Infrastructure Charges by Scenario ($)

	Number of one or two bedrooms dwellings	Number of three or more bedroom dwellings	Existing Use Credits	Total Infrastructure Charges ($)
Scenario 1a	6	6	1	$272,431
Scenario 1b	6	2	1	$155,075
Scenario 1c	10	-	1	$180,221
Scenario 2a	9	6	2	$247,282
Scenario 2b	12	8	2	$368,828
Scenario 3	0	7	1	$176,034

	Number of one or two bedrooms dwellings	Number of three or more bedroom dwellings	Existing Use Credits	Total Infrastructure Charges ($)
Scenario 4a	0	15	2	$410,746
Scenario 4b	0	15	2	$410,746

Source: Redland City Council (2020) and CDM Smith Analysis (2020)

Building Construction Costs

Rawlinsons Australian Construction Handbook (2018) details the costs associated with developing multi-dwelling properties on a per square metre basis. The assessment has assumed that a medium standard finish product would be delivered under each scenario, with the construction point anticipated to be at the midpoint for a medium standard finished product. Based on the information provided in Rawlinson's, with these figures inflated to 2020 dollars and rounded to the nearest $50/sqm, the assessment has assumed the following construction costs per square metre:

- Scenario 1a: $1,900 per square metre;
- Scenario 1b: $1,900 per square metre;
- Scenario 1c: $1,900 per square metre;
- Scenario 2a: $1,900 per square metre;
- Scenario 2b: $2,400 per square metre;
- Scenario 3: $1,900 per square metre;
- Scenario 4a: $1,900 per square metre; and
- Scenario 4b: $1,900 per square metre.

The additional construction costs with Scenario 2b relate to the provision of lifts in a building with four or more storeys. The indicative construction cost for each scenario ranges between $1,368,000 (Scenario 1b) and $4,704,000 (Scenario 2b).

Table 7 Unit and Townhouse Construction Costs by Scenario ($)

	Sqm of building footprint	Construction Cost ($/sqm)	Total Construction Cost ($)
Scenario 1a	1,200	$1,900	$2,280,000
Scenario 1b	720	$1,900	$1,368,000
Scenario 1c	820	$1,900	$1,558,000
Scenario 2a	1,470	$1,900	$2,793,000
Scenario 2b	1,960	$2,400	$4,704,000
Scenario 3	910	$1,900	$1,729,000
Scenario 4a	1,950	$1,900	$3,705,000
Scenario 4b	1,950	$1,900	$3,705,000

Note: Recall the building footprint of a townhouse (excluding garage) is 130sqm (or 65sqm/floor)
Source: CDM Smith Analysis (2020) and Rawlinsons Australian Construction Handbook (2018)

Landscaping Construction Costs

The quantifiable assessment criteria have identified that 20% of the total site area for both apartment and townhouse developments should be landscaped.

For the purposes of this assessment, landscaping construction costs have been assumed to be $50 per square metre, consistent with the guidance provided in the Rawlinsons Australian Construction Handbook.

Table 8 details the total landscaping costs associated with each scenario, based on a 20% site area being landscaped at a rate of $50 per square metre.

Table 8 Cost of landscaping by scenario ($)

	Landscaped Area (sqm)	Cost of landscaping
Scenario 1a	163.8	$8,190
Scenario 1b	163.8	$8,190
Scenario 1c	163.8	$8,190
Scenario 2a	202.4	$10,120
Scenario 2b	202.4	$10,120
Scenario 3	161.8	$8,090
Scenario 4a	327.8	$16,390
Scenario 4b	327.8	$16,390

Note: Rawlinsons estimates have been adjusted to reflect 2020 dollars.
Source: CDM Smith Analysis (2020) and Rawlinsons Australian Construction Handbook (2018)

Communal Open Space Construction Costs

The quantifiable assessment criteria identify a need to provide communal open space for the following development types:

- Apartments: Developments with ten or more apartments; and
- Townhouses: Developments with twenty or more townhouses.

Therefore, this criteria applies only to Scenarios 1a 1c, 2a and 2b (Scenarios 1b, 3, 4a and 4b are of insufficient size to require communal open space[2]).

The requirement is to provide a minimum of 100sqm or 15% of the site area in communal open space, with at least 75sqm or 10% (whichever is greater) to be provided on the ground floor.

Our assessment has assumed that the communal open space for Scenarios 1a, 1c 2a and 2b is provided on the ground floor and represents another landscaped area, that can be enjoyed by all residents within the complex. The assessment has assumed that the cost of providing communal open space is consistent with the landscaping costs incurred (i.e. $50 per square metre).

Table 9 summarises the cost of providing communal open space under Scenarios 1a, 1c, 2a and 2b, based on the above assumptions.

[2] Whilst these scenarios do not offer communal open space, private open space would be provided in these developments as balconies.

Table 9 Cost of communal open space by scenario ($)

	Communal Open Space Area (sqm)	Cost of communal open space
Scenario 1a	122.9	$6,143
Scenario 1b	-	-
Scenario 1c	122.9	$6,143
Scenario 2a	151.8	$7,590
Scenario 2b	151.8	$7,590
Scenario 3	-	-
Scenario 4a	-	-
Scenario 4b	-	-

Note: Rawlinsons estimates have been adjusted to reflect 2020 dollars.
Source: CDM Smith Analysis (2020) and Rawlinsons Australian Construction Handbook (2018)

Carparking Construction Costs

The final input to calculating the total construction costs under each scenario, is the cost of constructing the onsite carparking facilities.

Based on the quantifiable assessment criteria, the number of car parks required under each scenario are:

- Scenario 1a: 23 car spaces;
- Scenario 1b: 13 car spaces;
- Scenario 1c: 14 car spaces;
- Scenario 2a: 28 car spaces;
- Scenario 2b: 36 car spaces
- Scenario 3: 15 car spaces;
- Scenario 4a: 32 car spaces; and
- Scenario 4b: 32 car spaces.

For Scenario 3 and Scenario 4a and 4b, the resident spaces are anticipated to be included in the townhouse footprint, with the visitor carpark/s to be provided at grade at the front of the complex.

To provide the required car parking under Scenarios 1a, 2a and 2b, provision of underground car parking will be required. The assessment has assumed that the visitor spaces would be provided at grade, with resident spaces to be provided underground. Advice from Council has indicated that up to 90% of the site footprint underground can be utilised for underground parking (total site area less 10% deep planting area). Based on this advice, Scenario 1a and 2a would require a single level basement carpark, with Scenario 2b requiring a double level basement carpark.

As detailed by Redland City Council, Scenario 1b and Scenario 1c have carparking located on level one of the developments, with a visitor carpark at grade at the front of the complex. Therefore, it is anticipated that all carparks required under these development scenarios will be included in the footprint of the building, based on a 30 sqm per carpark assumption.

An average car park provision of 30sqm per car park has been assumed across all scenarios, to provide sufficient space for access and manoeuvring.

The total anticipated number of carparks required by type are summarised in Table 10.

Table 10 Number of Carparks required by Scenario

	Visitor spaces	Resident Spaces 1 bed product	Resident spaces 2 bed product	Resident Spaces 3 bed product	Total Car Spaces	Levels of Basement Parking Required
Scenario 1a	2	-	9	12	23	1
Scenario 1b	1	2	6	4	13	-
Scenario 1c	1	4	9	0	14	-
Scenario 2a	2	-	14	12	28	1
Scenario 2b	2	-	18	16	36	2
Scenario 3	1	-	-	14	15	-
Scenario 4a	2	-	-	30	32	-
Scenario 4b	2	-	-	30	32	-

Source: CDM Smith Analysis (2020)

To calculate the total construction costs of carparking for each scenario, the following assumptions have been made:

- Scenario 1a: All carparks to be provided underground, at an estimated cost of $1,600 per square metre;
- Scenario 1b: apartment carparks to be provided on level 1 of the development at an estimated cost of $700 per square metre. Visitor park to be provided at grade, at an estimated cost of $100 per square metre;
- Scenario 1c: apartment carparks to be provided on level 1 of the development at an estimated cost of $700 per square metre. Visitor park to be provided at grade, at an estimated cost of $100 per square metre;
- Scenario 2: All carparks to be provided underground, at an estimated cost of $1,600 per square metre;
- Scenario 3: Townhouse carparks to be provided under the townhouse as a 65sqm double garage, at an estimated cost of $600 per square metre. Visitor park to be provided at grade, at an estimated cost of $100 per square metre; and
- Scenario 4: Townhouse carparks to be provided under the townhouse as a 65sqm garage, at an estimated cost of $600 per square metre. Visitor park to be provided at grade, at an estimated cost of $100 per square metre.

The total cost of providing the required car parking under each scenario is summarised in Table 11.

Table 11 Estimated Carparking Construction Costs by Scenario ($)

	Floor Plate for Underground/ Undercroft Car Parking (sqm)	Floor Plate for Townhouse Garages (sqm)	Floor Plate for Visitor Parking at Grade (sqm)	Estimated Carparking Construction Cost ($)
Scenario 1a	630	-	60	$1,014,000
Scenario 1b	360	-	30	$255,000
Scenario 1c	390	-	30	$276,000
Scenario 2a	780	-	60	$1,254,000
Scenario 2b	1,020	-	60	$1,638,000
Scenario 3	-	455	30	$276,000
Scenario 4a	-	975	60	$591,000
Scenario 4b	-	975	60	$591,000

Note: Rawlinsons estimates have been adjusted to reflect 2020 dollars.
Source: CDM Smith Analysis (2020) and Rawlinsons Australian Construction Handbook (2018)

Contingency

The analysis has assumed a 2.5% contingency on construction costs for each scenario. This assumption yields the following contingency allowance:

- Scenario 1a: $89,358;
- Scenario 1b: $40,780;
- Scenario 1c: $46,208;
- Scenario 2a: $109,468;
- Scenario 2b: $171,943;
- Scenario 3: $50,327;
- Scenario 4a: $107,810; and
- Scenario 4b: $107,810.

Consultant and Design Fees

The analysis has assumed that the total consultant and design fees will be approximately 2.5% of the total build cost under each scenario and include allowance for development application costs. This assumption yields the following cost per scenario:

- Scenario 1a: $89,358;
- Scenario 1b: $40,780;
- Scenario 1c: $46,208;
- Scenario 2a: $109,468;
- Scenario 2b: $171,943;
- Scenario 3: $50,327;

- Scenario 4a: $107,810; and
- Scenario 4b: $107,810.

Sales Price of Units and Townhouses

Market research into recent sales of newly developed unit and townhouses across suburbs relevant to the subject sites was conducted in order to obtain an indicative sales price for new unit and townhouse product. For the purposes of this assessment, waterfront properties have been excluded as they do not represent a comparable sales price for the developments assessed under each scenario. The product types and assumed suburbs for each of the scenarios are as follows:

- Scenario 1a – Alexandra Hills: two and three bedroom apartments;
- Scenario 1b – Alexandra Hills: one, two and three bedroom apartments;
- Scenario 1c – Alexandra Hills: one and two bedroom apartments;
- Scenario 2a – Wellington Point: two and three bedroom apartments;
- Scenario 2b – Wellington Point: two and three bedroom apartments;
- Scenario 3 – Victoria Point: three bedroom townhouses;
- Scenario 4a – Cleveland: three bedroom townhouses; and
- Scenario 4b – Cleveland: three bedroom townhouses.

Within Alexandra Hills, there were few comparable sales identified, including no sales of new one bedroom apartments. Attached dwelling sales in Alexandra Hills were typically for townhouse product, as opposed to unit developments. However, new apartment sales were identified within the unit complex at 15-21 Saint Anthony Drive. PriceFinder data indicates that on average, each apartment sold for approximately $340,000 in 2015 and 2016. The product offered at this site was of a lower standard than the build quality proposed at the subject site, with car parking simply an allocated outdoor car space with a shade structure on top, as opposed to underground parking.

Based on this information, the analysis has assumed that two bedroom units at the subject site would likely attract a price premium given the relative build quality. The assessment has assumed an average sales price of $330,000 for one bedroom units, $370,000 for two bedroom units and $400,000 for three bedroom units at the subject site. A review of modern unit developments within Victoria Point suggested a sales price of $430,000 for two bedroom units and $470,000 for three bedroom units was potentially achievable at the site under investigation.

Modern townhouse developments within Cleveland appeared to achieve a slight price premium relative to modern townhouse developments in Victoria Point. For the purposes of this assessment, a sales price of $530,000 per townhouse in Victoria Point and $550,000 per townhouse in Cleveland has been assumed.

Scenario 4b involves the development of freehold townhouses in Cleveland. An assessment of townhouse developments throughout Brisbane indicates a typical premium on freehold townhouses in the order of 5% of the total sale price, relative to strata titled townhouses. Therefore, under Scenario 4b the indicative sales price is estimated at approximately $577,500 for a freehold townhouse in Cleveland.

Table 12 outlines the assumed sales price for each product type across the scenarios.

Table 12 Indicative Sales Price by Product Type under Each Scenario

	One bedroom apartment	Two bedroom apartment	Three bedroom Apartment	Three bedroom Townhouse
Scenario 1a	-	$370,000	$400,000	-
Scenario 1b	$330,000	$370,000	$400,000	
Scenario 1c	$330,000	$370,000	$400,000	
Scenario 2a	-	$430,000	$470,000	-
Scenario 2b	-	$430,000	$470,000	-
Scenario 3	-	-	-	$530,000
Scenario 4a	-	-	-	$550,000
Scenario 4b	-	-	-	$577,500

Source: Pricefinder (2020)

The assessment has assumed that 60% of each development is pre-sold in the year of construction, with the remaining 40% of product to be sold in the subsequent year (i.e. once the development is completed).

Selling Costs

Selling costs consist of the marketing required to sell the dwellings under each scenario and the commission on these sales. Total selling costs have been assumed to represent 7.5% of the total sales value. Based on this assumption, selling costs over the life of the project have been estimated to be:

- Scenario 1a: $346,500;
- Scenario 1b: $220,500;
- Scenario 1c: $265,500;
- Scenario 2a: $569,250;
- Scenario 2b: $669,000;
- Scenario 3: $119,250;
- Scenario 4a: $288,750 and
- Scenario 4b: $303,188.

The assessment has assumed that selling costs are incurred in the year of unit / townhouse sales.

Financing Costs

In determining indicative financing costs for a prospective developer, the analysis has made the following assumptions:

- Loan to value ratio (LVR) of 70%;
- Interest rate of 7.5%[3]; and

[3] Currently, the base lending rate is approximately 4%, with the premium on commercial loans typically in the order of 2.5% to 3.5%. Based on this assumption, the appropriate interest rate is approximately 6.5% to 7.5%. Our assessment has conservatively assumed the appropriate rate for financing is 7.5%.

- Repayment term of two years, with monthly payment terms.

Based on the above assumptions, total financing costs incurred for each scenario are as follows:

- Scenario 1a: Total financing cost of $257,472;
- Scenario 1b: Total financing cost of $145,242;
- Scenario 1c: Total financing cost of $161,936;
- Scenario 2a: Total financing cost of $325,628;
- Scenario 2b: Total financing cost of $472,949;
- Scenario 3: Total financing cost of $171,755;
- Scenario 4a: Total financing cost of $368,127; and
- Scenario 4b: Total financing cost of $369,859.

Table 13 details the indicative financing costs associated with each scenario over the life of the project.

Table 13 Total Financing Cost Associated with each Development Scenario ($)

Financing Costs	Scenario 1a	Scenario 1b	Scenario 1c	Scenario 2a	Scenario 2b	Scenario 3	Scenario 4a	Scenario 4b
LVR	70%	70%	70%	70%	70%	70%	70%	70%
Amount not borrowed	$1,379,481	$778,175	$867,618	$1,744,651	$2,533,965	$920,228	$1,972,349	$1,981,630
Amount borrowed	$3,218,790	$1,815,741	$2,024,443	$4,070,852	$5,912,585	$2,147,199	$4,602,147	$4,623,803
Interest Rate	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Term (months)	24	24	24	24	24	24	24	24
Repayment	$144,844	$81,708	$91,099	$183,187	$266,064	$96,623	$207,095	$208,069
Total Paid	$3,476,261	$1,960,982	$2,186,378	$4,396,481	$6,385,534	$2,318,954	$4,970,274	$4,993,662
Interest to be paid	$257,472	$145,242	$161,936	$325,628	$472,949	$171,755	$368,127	$369,859

Source: CDM Smith Analysis (2020)

Cost Benefit Streams

The cost benefit streams for each scenario are outlined in Tables 14 to 21.

Table 14 Cost Benefit Schedule – Scenario 1a

	Year 0	Year 1
Costs ($m)		
Land Acquisition Costs		
Purchase of existing land use	$450,450	
Transfer duty payable	$14,191	
Demolition of Existing Land Use	$40,950	
Infrastructure Charges	$272,431	
Construction Costs		
Building construction	$2,280,000	
Car parking construction	$1,014,000	
Landscaping	$8,190	
Communal Open Space	$6,143	
Contingency	$82,708	
Consultant and Design fees	$82,708	
Selling Costs	$207,900	$138,600
Financing Costs	$154,483	$102,989
Subtotal	$4,614,154	$241,589
Benefits ($m)		
Property Sales	$2,772,000	$1,848,000
Subtotal	$2,772,000	$1,848,000
Net Benefit Stream	-$1,842,154	$1,606,411

Source: CDM Smith Analysis (2020)

Table 15 Cost Benefit Schedule – Scenario 1b

	Year 0	Year 1
Costs ($m)		
Land Acquisition Costs		
Purchase of existing land use	$450,450	
Transfer duty payable	$14,191	
Demolition of Existing Land Use	$40,950	
Infrastructure Charges	$155,075	
Construction Costs		
Building construction	$1,368,000	
Car parking construction	$255,000	
Landscaping	$8,190	
Communal Open Space	$0	
Contingency	$40,780	
Consultant and Design fees	$40,780	
Selling Costs	$132,300	$88,200
Financing Costs	$87,145	$58,097
Subtotal	$2,592,860	$146,297
Benefits ($m)		
Property Sales	$1,764,000	$1,176,000
Subtotal	$1,764,000	$1,176,000
Net Benefit Stream	-$828,860	$1,029,703

Source: CDM Smith Analysis (2020)

Table 16 Cost Benefit Schedule – Scenario 1c

	Year 0	Year 1
Costs ($m)		
Land Acquisition Costs		
Purchase of existing land use	$450,450	
Transfer duty payable	$14,191	
Demolition of Existing Land Use	$40,950	
Infrastructure Charges	$180,221	
Construction Costs		
Building construction	$1,558,000	
Car parking construction	$276,000	
Landscaping	$8,190	
Communal Open Space	$6,143	
Contingency	$46,208	
Consultant and Design fees	$46,208	
Selling Costs	$159,300	$106,200
Financing Costs	$97,161	$64,774
Subtotal	$2,883,022	$170,974
Benefits ($m)		
Property Sales	$2,124,000	$1,416,000
Subtotal	$2,124,000	$1,416,000
Net Benefit Stream	-$759,022	$1,245,026

Source: CDM Smith Analysis (2020)

Table 17 Cost Benefit Schedule – Scenario 2a

Costs ($m)	Year 0	Year 1
Costs ($m)		
Land Acquisition Costs		
Purchase of existing land use	$657,800	
Transfer duty payable	$22,626	
Demolition of Existing Land Use	$50,600	
Infrastructure Charges	$247,282	
Construction Costs		
Building construction	$2,793,000	
Car parking construction	$1,254,000	
Landscaping	$10,120	
Communal Open Space	$7,590	
Contingency	$101,618	
Consultant and Design fees	$101,618	
Selling Costs	$341,550	$227,700
Financing Costs	$195,377	$130,251
Subtotal	$5,783,181	$357,951
Benefits ($m)		
Property Sales	$4,554,000	$3,036,000
Subtotal	$4,554,000	$3,036,000
Net Benefit Stream	-$1,229,181	$2,678,049

Source: CDM Smith Analysis (2020)

Table 18 Cost Benefit Schedule – Scenario 2b

	Year 0	Year 1
Costs ($m)		
Land Acquisition Costs		
Purchase of existing land use	$657,800	
Transfer duty payable	$22,626	
Demolition of Existing Land Use	$50,600	
Infrastructure Charges	$368,828	
Construction Costs		
Building construction	$4,704,000	
Car parking construction	$1,638,000	
Landscaping	$10,120	
Communal Open Space	$7,590	
Contingency	$158,993	
Consultant and Design fees	$158,993	
Selling Costs	$401,400	$267,600
Financing Costs	$283,769	$189,180
Subtotal	$8,462,719	$456,780
Benefits ($m)		
Property Sales	$5,352,000	$3,568,000
Subtotal	$5,352,000	$3,568,000
Net Benefit Stream	-$3,110,719	$3,111,220

Source: CDM Smith Analysis (2020)

Table 19 Cost Benefit Schedule – Scenario 3

	Year 0	Year 1
Costs ($m)		
Land Acquisition Costs		
Purchase of existing land use	$444,950	
Transfer duty payable	$13,998	
Demolition of Existing Land Use	$40,450	
Infrastructure Charges	$176,034	
Construction Costs		
Building construction	$1,729,000	
Car parking construction	$276,000	
Landscaping	$8,090	
Communal Open Space	$0	
Contingency	$50,327	
Consultant and Design fees	$50,327	
Selling Costs	$166,950	$111,300
Financing Costs	$103,053	$68,702
Subtotal	$3,059,180	$180,002
Benefits ($m)		
Property Sales	$2,226,000	$1,484,000
Subtotal	$2,226,000	$1,484,000
Net Benefit Stream	-$833,180	$1,303,998

Source: CDM Smith Analysis (2020)

Table 20 Cost Benefit Schedule – Scenario 4a

	Year 0	Year 1
Costs ($m)		
Land Acquisition Costs		
Purchase of existing land use	$901,450	
Transfer duty payable	$33,590	
Demolition of Existing Land Use	$81,950	
Infrastructure Charges	$410,746	
Construction Costs		
Building construction	$3,705,000	
Car parking construction	$591,000	
Landscaping	$16,390	
Communal Open Space	$0	
Contingency	$107,810	
Consultant and Design fees	$107,810	
Selling Costs	$371,250	$247,500
Financing Costs	$220,876	$147,251
Subtotal	$6,547,872	$394,751
Benefits ($m)		
Property Sales	$4,950,000	$3,300,000
Subtotal	$4,950,000	$3,300,000
Net Benefit Stream	-$1,597,872	$2,905,249

Source: CDM Smith Analysis (2020)

Table 21 Cost Benefit Schedule – Scenario 4b

	Year 0	Year 1
Costs ($m)		
Land Acquisition Costs		
Purchase of existing land use	$901,450	
Transfer duty payable	$33,590	
Demolition of Existing Land Use	$81,950	
Infrastructure Charges	$410,746	
Construction Costs		
Building construction	$3,705,000	
Car parking construction	$591,000	
Landscaping	$16,390	
Communal Open Space	$0	
Contingency	$107,810	
Consultant and Design fees	$107,810	
Selling Costs	$389,813	$259,875
Financing Costs	$221,915	$147,944
Subtotal	$6,567,474	$407,819
Benefits ($m)		
Property Sales	$5,197,500	$3,465,000
Subtotal	$5,197,500	$3,465,000
Net Benefit Stream	-$1,369,974	$3,057,181

Source: CDM Smith Analysis (2020)

Results

To assess the indicative feasibility of the base case scenario based on the above assumptions, three measures were calculated, these being:

- Internal Rate of Return: The internal rate of return is often described as the average annual return on investment;
- Simple Development Margin: The simple development margin represents the ratio between total undiscounted project benefits and total project costs less total project costs, expressed as a percentage. A positive simple development margin indicates that the total project benefits exceed the total project costs; and
- Simple Development Profit: The simple development profit is calculated by subtracting the estimated total costs of the project from the estimated total benefits of the project. A positive simple development profit indicates that the proposed development results in a net financial gain for the developer.

Table 22 provides a summary of the internal rate of return, simple development margin and simple development profit for each scenario. This table also highlights that Scenarios 1b and 1c, Scenarios 2a and 2b, Scenario 3 and Scenarios 4a and 4b provide a positive return to a developer.

Table 22 Summary of Cost Benefit Analysis Results by Scenario

	Internal Rate of Return	Simple Development Margin	Simple Development Profit
Scenario 1a	-12.8%	-4.9%	-$235,743
Scenario 1b	24.2%	7.3%	$200,843
Scenario 1c	64.0%	15.9%	$486,004
Scenario 2a	117.9%	23.6%	$1,448,868
Scenario 2b	0.0%	0.0%	$502
Scenario 3	56.5%	14.5%	$470,818
Scenario 4a	81.8%	18.8%	$1,307,377
Scenario 4b	123.2%	24.2%	$1,687,208

Source: CDM Smith Analysis (2020)

Conclusions

The analysis contained in this memorandum has considered a potential mix of residential product that can be accommodated on each site whilst meeting the quantifiable assessment criteria in addition to the two scenarios (Scenario 1b and Scenario 1c) as suggested by Redland City Council. The assessment identified that a residential developer would consider Scenario 2a and Scenario 4b, as these examples provide a simple development margin of at least 20%. Developers typically need to achieve a simple development margin of at least 20% to obtain development finance from a financier.

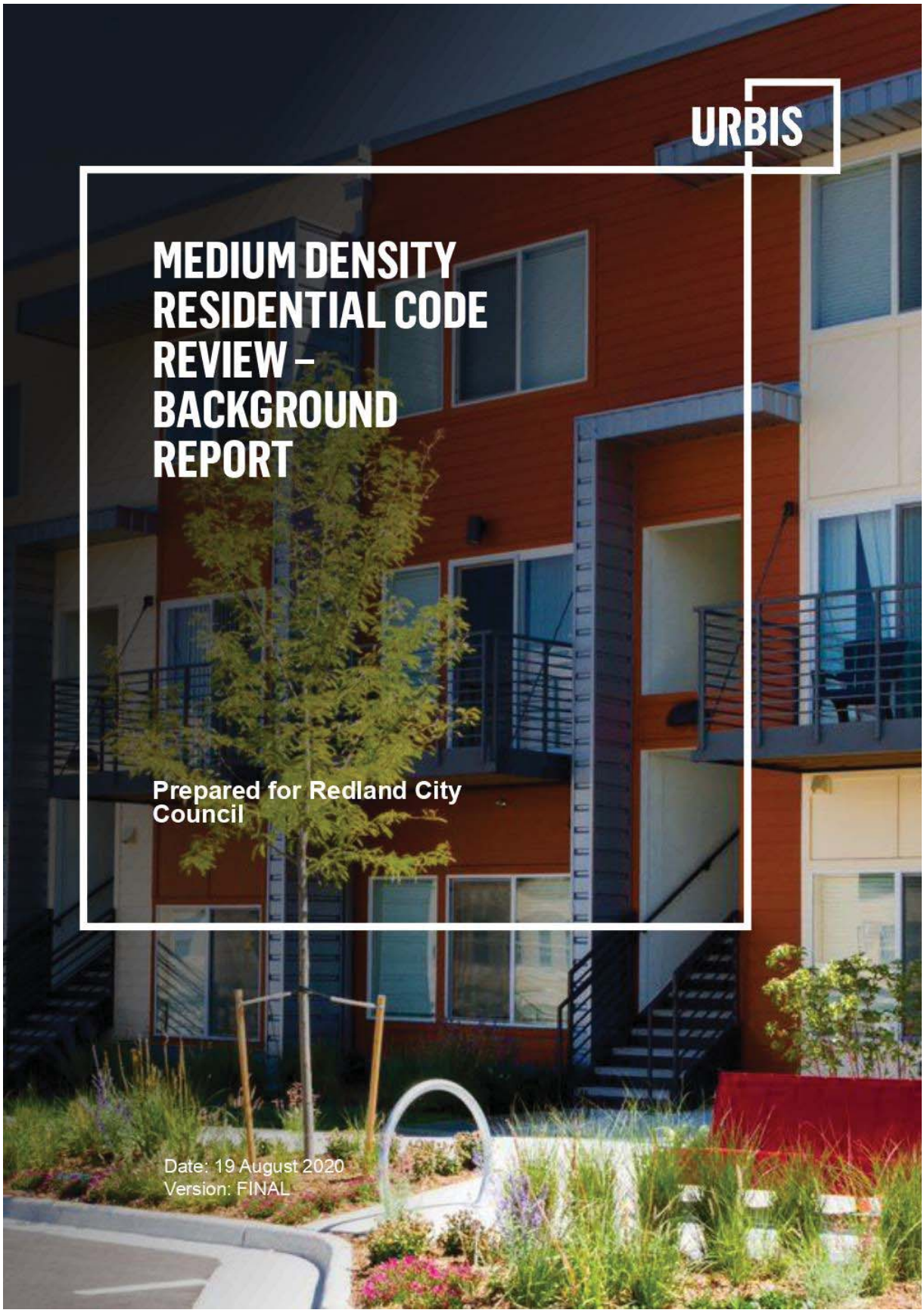
A 16 -20% margin is considered the "sweet spot" between providing a safety net in case of abrupt changes in the market and providing a decent profit to a developer. The developer can gain a higher profit margin if the property market rises during the development period. Conversely, if the market retracts, this margin provides a good safety buffer.

In the current market, banks require a minimum 18%- 20% minimum return on costs, with an 18% margin often the minimum return a bank would expect when offering commercial finance to a developer. Therefore, use of the 20% simple development margin in the feasibility analysis has been applied as it represents the margin at which developers would successfully obtain commercial finance.

Under Scenario 1a, the analysis indicates that the cost to deliver unit product on this site would exceed the revenue obtained from the sale of residential product. However, the variation of this development presented in Scenario 1b and Scenario 1c demonstrates that a smaller scale development, with parking on the ground level and two floors of apartments, could yield a positive benefit on a lot of less than 1,000 square metres. It also shows the difference dwelling mix can make on the feasibility of apartment developments with the simple development margin for 1b at 7.3% and 1c at 16% with the difference between the two scenarios only being the dwelling mix.

Scenario 1a, Scenario 1b, Scenario 1c, Scenario 2b, Scenario 3 and Scenario 4a, provide a simple development profit to the developer but the margin is insufficient to be able to obtain development finance (as the simple development margin is below 20%).

This would suggest that redevelopment within the medium density residential zone for three storey apartments could be challenging to deliver in suburbs like Alexandra Hills where the sale price of apartments is lower than other suburbs under the quantifiable assessment criteria identified in Table 3 of this document.



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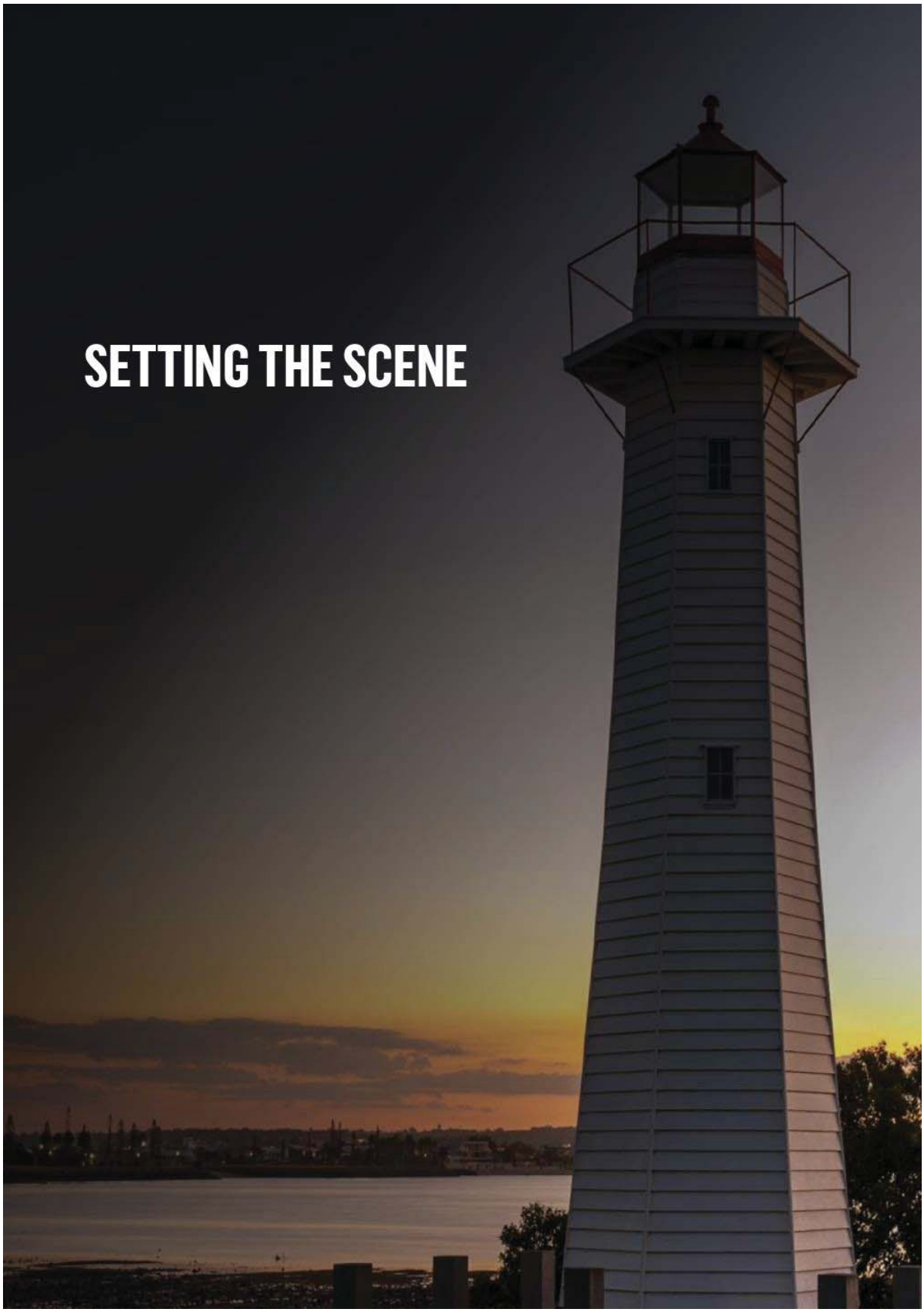


INTRODUCTION

About this Project

The *Redland City Plan 2018* (City Plan) commenced in October 2018 and included changes to the assessment criteria and provisions for multiple dwelling development in the Medium Density Residential Zone (MDRZ) compared to the superseded Redlands Planning Scheme (RPS).

The MDRZ is a critical element of the City Plan to achieve the strategic planning objectives for Redland City. With the MDRZ including 402.6 hectares of land across 2,624 lots and the majority currently not developed for multiple dwellings, it provides significant opportunities to deliver housing to support population growth, introduce greater diversity of housing mix and choice, and locate housing in proximity to public transport and centres to create walkable neighbourhoods for people to live, work and play.

Integral to realising the strategic planning objectives for Redland City Council LGA is ensuring the MDRZ Code and related parts of the City Plan is appropriately drafted to enable a high-quality medium density built form outcome consistent with Redland City's character, and with community views and expectations. The MDRZ Code sets out specific built form parameters to guide townhouses and apartment development (multiple dwellings).

Redland City Council's Strategic Planning team has recently undertaken a review of the MDRZ Code to assess the effectiveness of the code in achieving the intent of the zone, since its implementation in 2018 and with the commencement of the City Plan. The review has identified there a number of opportunities to improve the operation and multiple dwelling development outcomes delivered by the MDRZ code, which broadly includes:

- Better coordinating the MDR code outcomes;
- Refining existing assessment criteria to be more comprehensive in the outcomes sought, including new assessment criteria to better manage desired multiple dwelling outcomes and respond to the higher proportion of smaller lot sizes in the zone (700m² or less); and
- Integrating the non-statutory Multiple Dwelling Design Guide within the MDRZ Code.

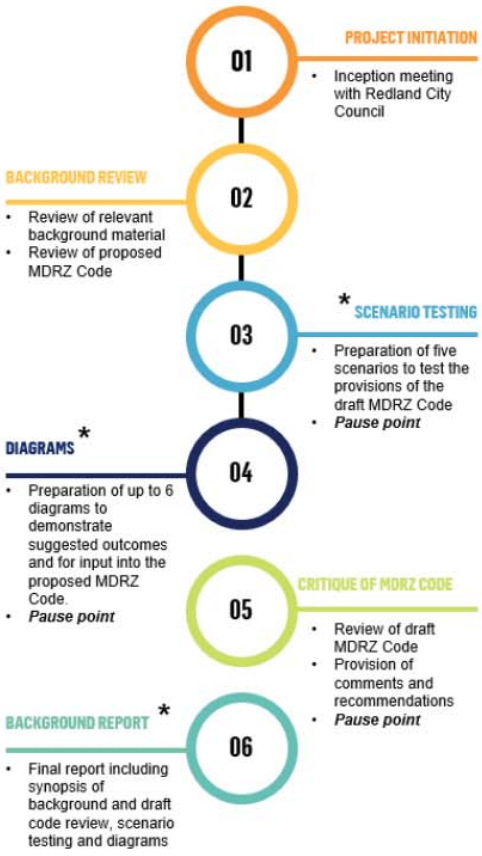
Urbis understands that the MDRZ Code is to be amended based on the recommendations of the review through a Major Amendment to the City Plan.

The intent of this investigation is to review and test the draft MDRZ Code to provide recommendations for consideration in preparing the Major Amendment to the City Plan.

This is to ensure that the changes to the assessment criteria are achievable and coordinated for multiple dwelling developments within the MDRZ.

The current scope of work involves six core phases of activity around two key deliverables, with 'pause points' built in to engage with the Strategic Planning team and to test ideas before proceeding to subsequent stages. The process and deliverables are described in the diagram that follows.

Figure 1: Approach and Scope of Work



* **Indicates Key Deliverable**

BACKGROUND DOCUMENTS

Overview of Key Documents

Redland City Council ('Council') has prepared various background research and planning documents used to guide the MDRZ Code review. The diagram below (**Figure 2**) provides a summary of the key outcomes of the background research and planning documents that informed Council's decision to proceed with drafting the Major Amendment Package to the City Plan for multiple dwellings.

Medium Density Residential Zone in Redland City

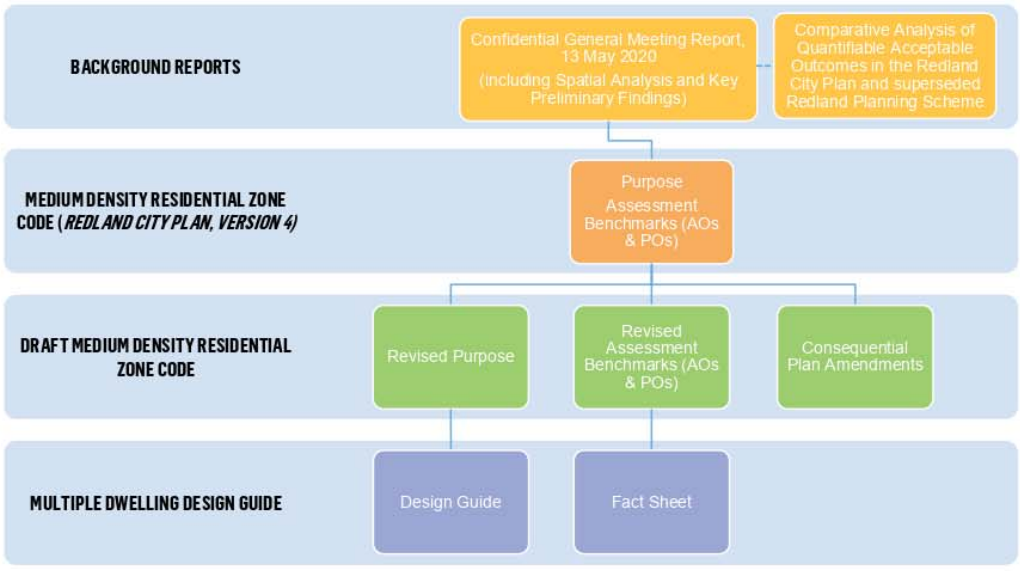
Redland City Council envisions MDRZ to offer medium density living of predominantly 2 to 3 storey townhouses and apartment buildings in close proximity to centres and public transport to support the city's future population and dwelling growth and improve housing diversity. Dual occupancies and dwelling houses are also supported in the zone.

MDRZ Code Review Scope

The scope of Redland City Council's review of the MDRZ Code included four key components.

- **SPATIAL ANALYSIS**
- **REVIEW OF APPROVED DEVELOPMENT APPLICATIONS IN THE MDRZ**
- **REVIEW OF PERFORMANCE AND ACCEPTABLE OUTCOMES**
- **REVIEW OF MDRZ CODES IN OTHER LGAS IN SOUTH-EASTQLD**

Figure 2: Key Redland City Council Documents



BACKGROUND DOCUMENTS

Key Findings

SPATIAL ANALYSIS

The spatial analysis revealed that there are opportunities for significant further development of multiple dwellings in the zone for the following reasons:

- The MDRZ has a total area of 402.6ha across 2,624 lots. Approximately 17% of these lots are currently improved by a multiple dwelling development. The remaining lots consists of detached dwelling house typologies.
- Approximately 95% of existing development in the MDRZ consists of a maximum building height of three storeys and 13 metres. Greater height are limited to specific precincts, which make up 5% of the zone.
- The MDRZ is currently characterised by a limited extent of existing multiple dwelling development and relatively small lot size within the zone, with 59% of the lots being 800m² or less and 49% being 700m² or below.
- MDR lots are generally well located with respect to centres and/or public transport with the majority of lots (90%) being located within 400m of a centre or high frequency public transport (rail station or bus stop on high frequency public transport route).

REVIEW OF APPROVED DEVELOPMENT APPLICATIONS IN THE MDRZ

Since the commencement of the City Plan on 8 October 2018, five (5) multiple dwelling applications have been assessed and approved under the MDR zone code. These approved multiple dwellings under the current City Plan provided for the development of apartments between 2 to 3 storeys in height and on lots between 800m² to 1,200m². These five applications formed part of the second phase of Council's MDRZ Code review.

The review highlighted that a majority of the applications did not provide dwelling diversity as they were limited to one bedroom or two bedroom dwellings. Most applications also had a reduced side setback than the acceptable outcome, indicating that there is potential for Council to strengthen the performance outcome for side setbacks. Council's review identified that the approved applications did not effectively incorporate Multiple Dwelling Design Guide elements and the current MDRZ zone contained limited architectural elements and controls aimed at reducing building bulk and visual impact of servicing areas (such as bins).

REVIEW OF PERFORMANCE AND ACCEPTABLE OUTCOMES

Council's review of the operation of the performance and acceptable outcomes of the MDRZ Code identified that there are issues with the coordination of outcomes and comprehensiveness of performance and acceptable outcomes.

Key limitations included:

- Difficulties in reducing the visual impact of built form (as sought in the purpose of the code), as acceptable outcome for site cover is relatively high at 75%.
- Difficulties in achieving the acceptable outcomes for setbacks due to the high site cover provision (75% of total site area).
- Lack of clarity of preferred location of private open space, creating undesirable outcomes of private open space being located on the street frontage and screened with a solid wall/fence for privacy.
- Lack of clarity or guidance for communal open space design.
- Limited consideration of variation of front setback requirements based on proposed building height. The front setback does not vary for building height and is the same for a single storey and six storey multiple dwelling.

BACKGROUND DOCUMENTS

REVIEW OF MDRZ CODES IN OTHER LGAS IN SOUTH-EAST QLD

The comparative review of MDRZ Codes in other local planning schemes within South-East Queensland region (Brisbane City Council, Logan City Council, Moreton Bay Regional Council and City of Gold Coast) provided benchmarks for Redland City Council to improve their code.

Key approaches and assessment criteria to improve the MDRZ Code of the City Plan included:

- Variation of performance and acceptable outcomes based on housing type and building height.
- Comprehensive performance outcomes for lot size, site area/frontage and site cover outcomes
- Adoption of a lower threshold for communal open space.
- Incorporation of performance and acceptable outcomes for housing diversity.
- Discouraging inefficient use of MDRZ land for detached dwelling houses through category of assessment and overlay provisions.
- Consideration of car parking location, screening and setback requirements.
- Adoption of Waste Planning Scheme Policies and reference within the MDRZ code to provide guidance on refuse storage locations and bin sizes.
- Adoption of building depth and articulation performance and acceptable outcomes to manage building bulk and visual amenity impacts , and support better natural ventilation.
- Incorporating high-quality illustrations to demonstrate building envelope, building massing and design outcomes sought by the MDRZ code.

INITIAL RECOMMENDATIONS

Based on the outcomes of the MDRZ Code review, six recommendations have been endorsed by Council, which are summarised in **Figure 3** below.

Figure 3: Summary of Key Recommendations

1 **IMPROVE COORDINATION BETWEEN MDRZ CODE ASSESSMENT CRITERIA**

Ensure alignment between overall outcomes and performance outcomes and assessment criteria (performance outcomes and acceptable outcomes) for built form, open space and amenity elements work collectively to deliver high quality multiple dwelling outcomes.

2 **REFINE PERFORMANCE AND ACCEPTABLE OUTCOMES OF THE MDRZ CODE**

Key focus areas for improvement include revising and ensuring alignment of performance and acceptable outcomes for site cover, building setbacks, communal open space, private open space, deep planting, roof design, car parking and refuse storage design.

3 **CONSIDER INTRODUCING NEW MDRZ CODE ASSESSMENT CRITERIA**

New assessment criteria to be developed to encourage opportunities for housing variety and mix, facilitate freehold titling of existing or approved townhouse housing; better manage building depth and respond to site-specific characteristics and character.

4 **INCORPORATE THE MULTIPLE DWELLING DESIGN GUIDE (MDDG) INTO THE CITY PLAN**

This recommendation involves integrating design elements of the MDDG into the MDRZ Code where practical through refinement of performance outcomes; converting the MDDG into a planning scheme policy that is referenced in the acceptable outcomes where relevant; and introducing new assessment criteria to allow building design to respond to site and character of the neighbourhood.

5 **INTRODUCE NEW ADMINISTRATIVE DEFINITIONS INTO THE CITY PLAN FOR TOWNHOUSE AND APARTMENT**

The townhouse and apartment definitions are currently included in the standard Multiple Dwelling use definition that is set by the *Planning Regulation 2017* and not specific to the development intent for MDRZ in Redland City

6 **MAKE SIMILAR AMENDMENTS TO THE LOW-MEDIUM DENSITY RESIDENTIAL (LMDR) ZONE CODE WHERE NEEDED**

The proposed amendments to the MDRZ Code as outlined in Recommendations 1 to 5 should be considered and adopted to the Low-Medium Density Zone (LMDRZ) code where appropriate to ensure the two codes align and achieve consistent outcome for multiple dwelling development across Redland City.

DEVELOPMENT PARAMETERS FOR REVIEW

The following table summarises the development parameters in the draft MDRZ code that was reviewed and adopted in the scenario testing process.

Table 1: Summary of Draft MDRZ Development Parameters

Development Parameters	Requirements
Maximum site cover	• 60% for townhouse • 50% for an apartment with a building height of 3 storeys or less • 45% otherwise
Maximum building height	• 3 storeys and 13m where not in a MDRZ precinct; • Where an apartment is 2 storeys in height: 11m; or • The storey and height specified in a MDRZ precinct.
Building height transition	• Within 10m of common boundary: maximum building height of 13m • Within 20m of common boundary: maximum building height of 6m greater than the intended building height on adjoining site
Minimum site area and frontage	*Building height of 3 storeys or less* • Minimum site area of 800m² and minimum frontage width of 15m *Building height of 4 storeys or greater* • Minimum site area of 1,000m² and minimum frontage width of 25m
Minimum setbacks	*Front:* • Townhouse: 3m to building wall and 5.5m to garage • Apartment with a building height of 3 storeys or less: 4m to balcony, eaves, awning and the like and 6m to building wall • Apartment with a building height of 4 storeys or more: 6m to balcony, eaves, awning and the like and 8m to building wall *Side:* • Townhouse: – a built to boundary wall does not exceed 4.5m in height and 9m in length along any one boundary – 1.5m for building wall up to 4.5m in height – 2m for building wall up to 7.5m high – 2.5m plus 0.5m for every 3m or part thereof by which the building exceeds 7.5m • Apartment with a building height of 3 storeys or less: 3m • Apartment with a building height of 4 storeys or more: 4m *Rear:* • Townhouse: 3m • Apartment with a building height of 2 storeys or less: 4.5m to balcony and 6m to building wall • Apartment with a building height of 3 storeys or less: 6m to building wall • Apartment with a building height of 4 storeys or more: 8m to balcony and building wall

DEVELOPMENT PARAMETERS FOR REVIEW

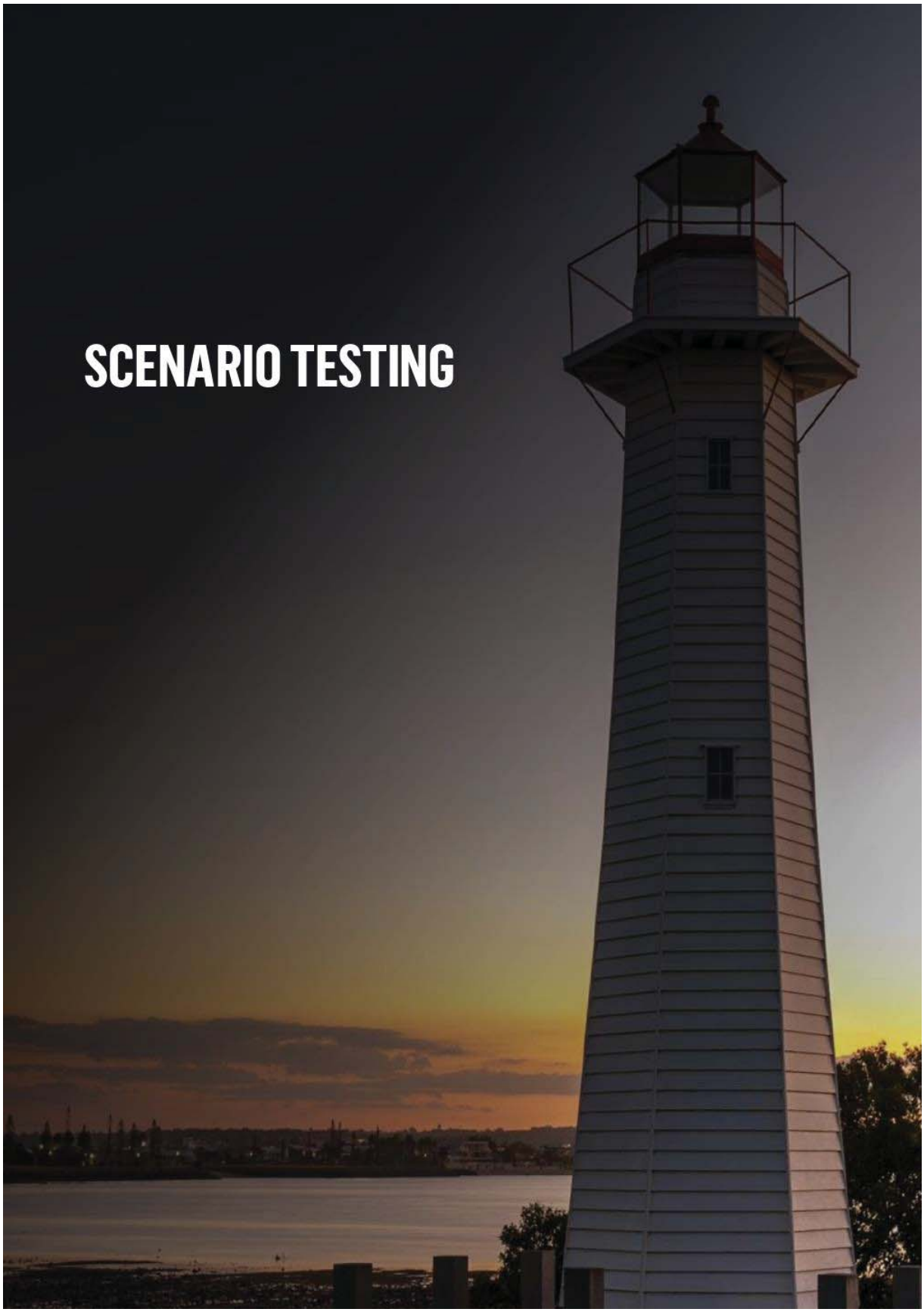
Table 1 (continued): Summary of Draft MDRZ Development Parameters

Development Parameters	Requirements
Maximum wall length	• 30m with a change in building line every 15m of plus or minus 1.5m for a length not less than 5m. • A minimum of 6m to be provided for full building separation ** Note: the maximum wall length provision applies only to apartments.*
Communal open space	*Apartment with 10 more dwellings:* • Minimum of 15% of site area of 100m² (whichever is greater) • Minimum dimension of 5m *Townhouse with 20 or more dwellings:* • Minimum of 5% of site area of 50m² (whichever is greater • Minimum dimension of 5m ** Note : Communal open space for apartment can be provided on rooftop or podiums. Minimum communal open space areas do not include deep planting.* *Location and Design Requirements:* • Centrally located to be readily accessible for residents via pedestrian pathways • Co-located with deep planting areas, where practicable • Oriented to north where practical • Clearly separated from any private open space and deep planting areas of the site • Provides a minimum of 15% of landscaping • Minimum of 15% landscaping, with a minimum width of 1.5m where adjoining a neighbouring property • Minimum of 15% area is shaded by trees.
Landscaped areas	• Minimum of 20% of total site area • Minimum 1.5m landscaped area along side boundaries • Minimum of 2m landscaped areas along road frontages
Deep planting	• Minimum 10% of site, with a minimum dimension of 4m and completely open to the sky. • Exclusively landscaping and does not contain driveways, manoeuvring or hardstand areas, pedestrian paths, surface structure and infrastructure (e.g. water tanks or utilities) or sub-surface structures or infrastructure (e.g. basement car parking and water supply or wastewater infrastructure). ** Note: the minimum 10% deep planting area requirement is part of the 20% landscaping requirement for the site.*

DEVELOPMENT PARAMETERS FOR REVIEW

Table 1 (continued): Summary of Draft MDRZ Development Parameters

Development Parameters	Requirements
Private open space	*Ground floor dwellings:* • Minimum area: 16m², if a dwelling in a residential care facility or 25m² otherwise • 25m² for all other dwellings • Minimum dimension of 4m and clear of any air conditioning unit or drying space *Above ground floor dwellings:* • Minimum area: – 10m², if a dwelling in a residential care facility – 10m² for a 1 bedroom unit – 16m² for a 2 or more bedroom unit • Minimum dimension of 3m and clear of any air conditioning unit or drying space *Location and design requirements:* • For townhouses with frontage to a street, private open space is to be located at the rear or side of a townhouse, behind the front building line and outside of front boundary setback.
Apartment diversity	• Apartment involving 5 or more dwellings: 40% of dwellings have a different number of bedrooms than other dwellings • Townhouse involving 5 or more dwellings: 20% of dwellings have a different number of bedrooms than other dwellings.
Basement design	• Located outside of deep planting areas
Car parking	• 1 visitor space per 10 units (tandem parking is not acceptable); plus • 1 space per 1 bedroom unit; • 1.5 spaces per unit with 2 bedrooms or more; or • 2 spaces per 3 bedroom unit. ** Note: It is assumed that the scenarios meet the locational requirements for the lower parking rate on the basis that the spatial analysis found that 90% of MDRZ lots are within 400m of a centre or high frequency public transport.*



SCENARIOS

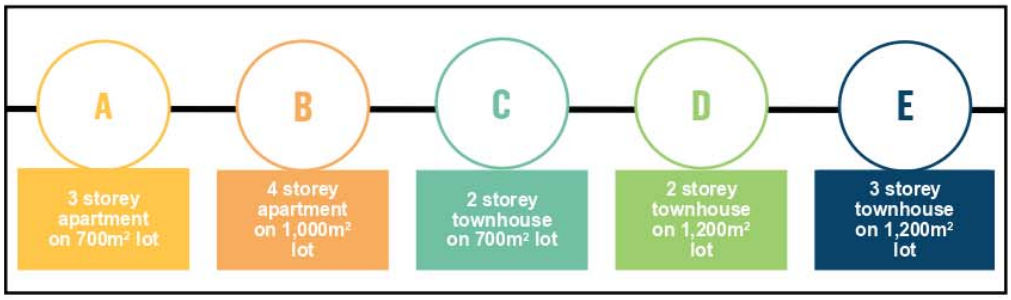
Five development scenarios within MDRZ have been nominated by the Strategic Planning team for testing. The identified scenarios are outlined in **Figure 4**.

The results of the scenario testing are illustrated overleaf. Each scenario identifies the relevant acceptable outcomes that were tested and includes an assessment on which acceptable outcomes were easily or difficult to comply with.

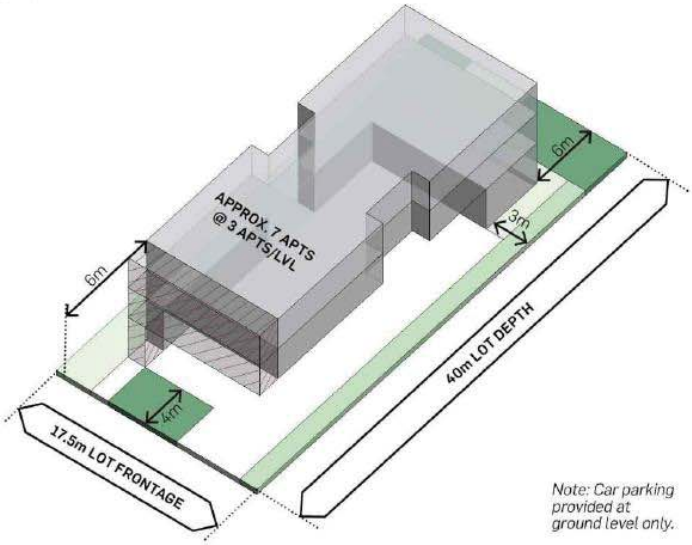
For Scenario A, an alternative lot size was adopted to the MDRZ minimum lot size 800m² for apartments to test whether the minimum lot size could be set lower.

For Scenario B, alternative development parameters were adopted for site cover and minimum front and rear setbacks than what was specified in the draft MDRZ code. It was agreed with Redland City Council that a 50% site cover, 4m front setback and 6m rear setback be applied for testing of Scenario B.

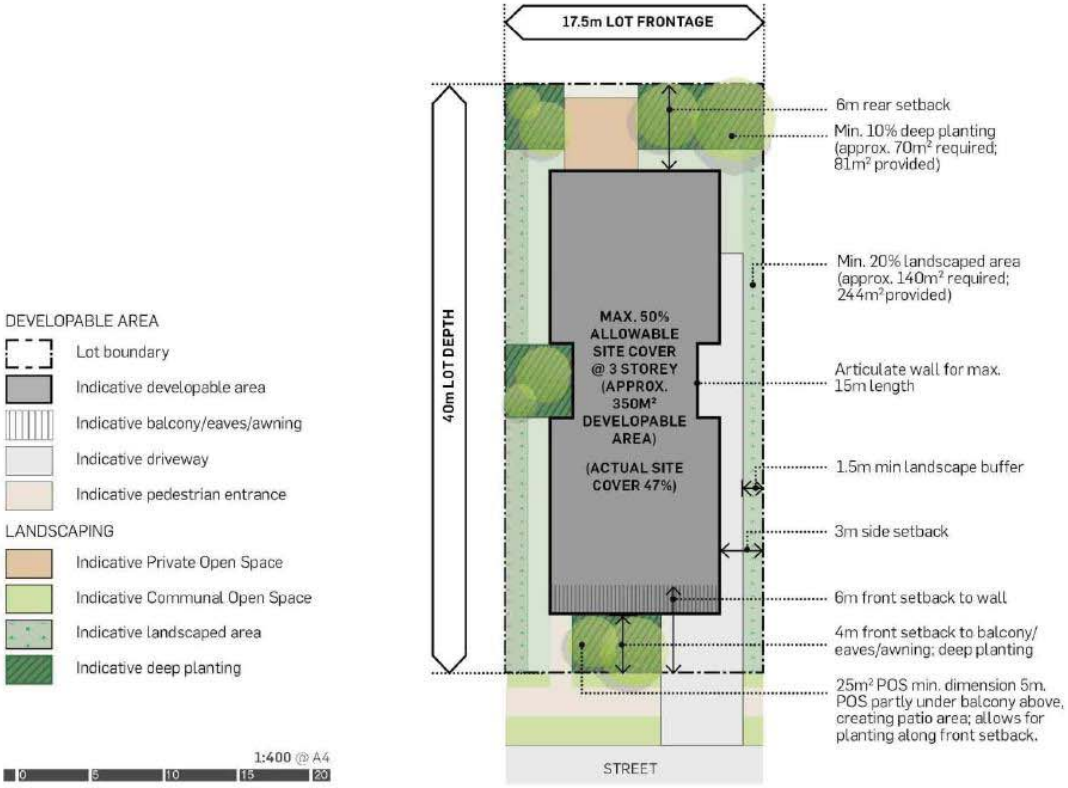
Figure 4: Scenarios Used for Testing



AXONOMETRIC: TYPICAL DEVELOPABLE AREA



SITE PLAN: TYPICAL DEVELOPABLE AREA



URBIS

REDLANDS MULTIPLE DWELLING CODE REVIEW
SCENARIO A: 3 STOREY APARTMENT ON 700M² LOT

Achieving
Not achieved

SUMMARY OF REQUIRED PARAMETERS (SCENARIO A):		STATUS	NOTES
Max. Allowable Site Cover:	50% for less than 3 storeys	✓	▪ Complies with AO ▪ 47% provided to comply with articulation requirements
Max. Building Height:	3 storeys (13 metres)	✓	▪ Complies with AO: ▪ indicative building height 10m (excl. roof)
Max. Wall Length:	30m with a change in building line every 15m of plus or minus 1.5m for a length not less than 5m.	✓	▪ Complies with AO: building articulation is provided midway along the side boundaries. ▪ Location of this may interfere with carparking, apartment entry, core and vertical circulation.
Setbacks:	**Front:** 4m to balcony, eaves, awning and the like and 6m to building wall	✓	▪ Complies with AO
	Side: 3m	✓	▪ Complies with AO
	Rear: 6m to balcony and building wall	✓	▪ Complies with AO
Communal Open Space:	Min. of 15% of site area or 100m² (whichever is greater); Min. 5m wide for developments with more than 10 apartments or 20 townhouses	N/A	▪ N/A
Landscaped Areas:	▪ Min. 20% of total site area ▪ **Includes Deep Planting:** Min. 10% of total site area; min. 4m wide ▪ Min. 1.5m landscaped area along side boundary ▪ Min. 2m landscaped areas along road frontages	✓	▪ Complies with AO
Private Open Space:	▪ **Ground floor dwellings:** Min. 16m², if a dwelling in a residential care facility or 25m² otherwise ; min. 4m wide ▪ **Above ground floor dwellings:** Min. 10m² for 1 bedroom unit; 16m² for two or more bedroom unit; min. 3m wide	✓	▪ Complies with AO ▪ Typically confined to rear or sides within building recess due to parking requirements
Apartment Diversity:	Apartment involving 5 or more dwellings: 40% of dwellings have a different number of bedrooms than other dwellings	✗	▪ Does not comply with AO due to prioritising the overall yield, as well as size limitations (lot width) on each floorplate. A more detailed concept design may change this outcome. ▪ 30% @ 2 bed : 70% @ 1 bed ▪ Refer 'High-Level Indicative Yield' row for assumptions
Carparking:	▪ 1 space per 1 bedroom unit ▪ 1.5 spaces per 2 or more bedroom unit ▪ 1 visitor space per 10 units	✓	▪ Complies with AO; Required car parking provision differs based on bedroom mix ▪ At-grade parking limits opportunities for POS and ground level apartment configuration to street frontage, as well as building core (vertical circulation) requirements.
High-Level Indicative Yield	**Apartments:** Approx. 7 apts total @ ave. 90m²/apt + POS [Assumes 330m² floor plate @ 80% efficiency; Assumes overall mix: 5x 1 bed apt (@ approx. 70sqm), 2x 2 bed apt (@ approx. 90sqm)] Includes: – 1x 1 bed apt @ ground (+ 25m² POS per ground floor apt) – 3 apts/lvl @ lvls 2-3 (+ 16m² POS per apt) **Carparking:** 8 spaces required (8 apt spaces; 0 visitor) (Assumes 35m² per carparking space as at-grade only) 8 carparking spaces provided at-grade including aisle clearance as required by AS 2890 and pedestrian entry as required by AS 1428.1 (approx.300m²).	N/A	▪ Yield and car parking provision will differ based on bedroom mix ▪ Includes 20% allowance for circulation, services, refuse & storage

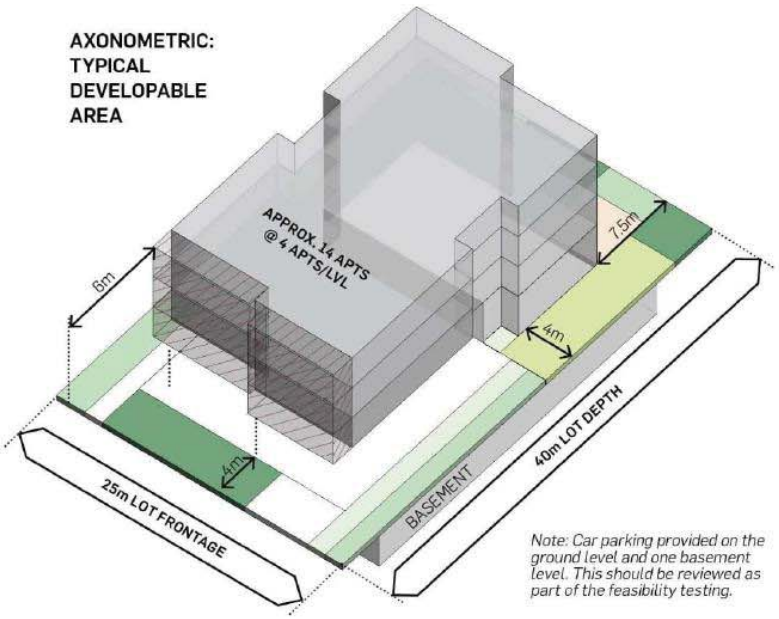
Note: Scenario testing does not consider building separation requirements as the site has been considered in isolation.

URBIS

REDLANDS MULTIPLE DWELLING CODE REVIEW
SCENARIO A: ASSESSMENT

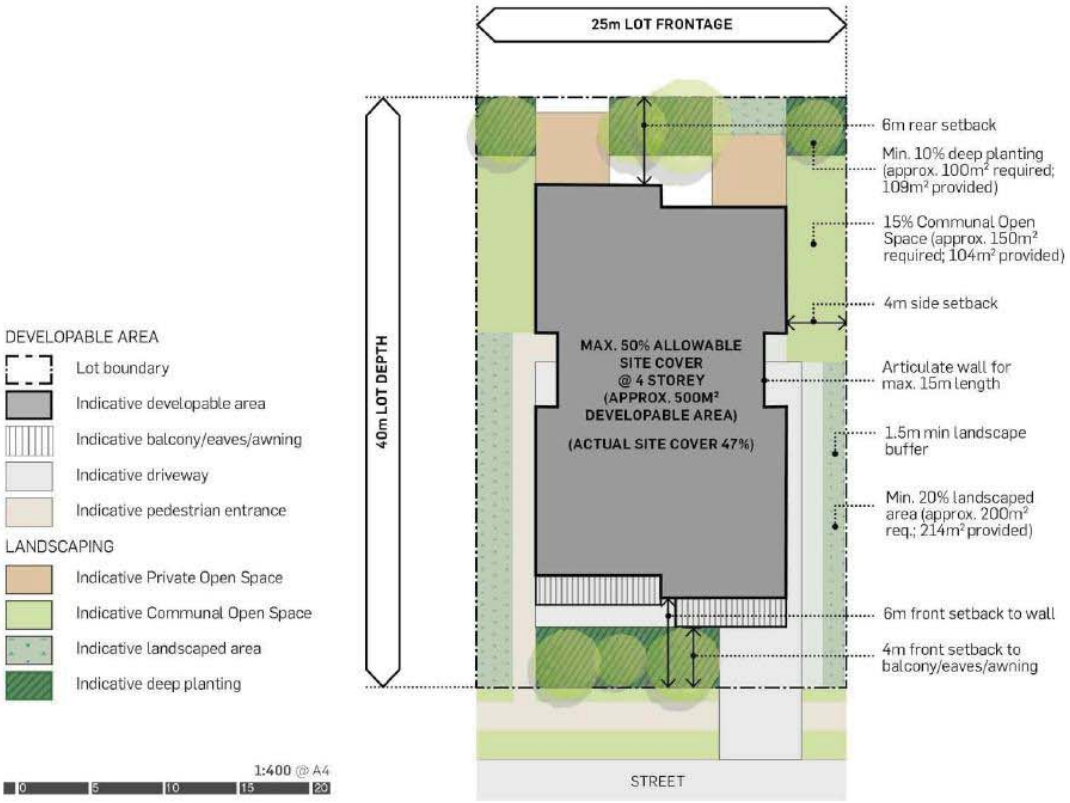
Achieving
Not achieved

AXONOMETRIC: TYPICAL DEVELOPABLE AREA



Note: Car parking provided on the ground level and one basement level. This should be reviewed as part of the feasibility testing.

SITE PLAN: TYPICAL DEVELOPABLE AREA



URBIS

REDLANDS MULTIPLE DWELLING CODE REVIEW
SCENARIO B: 4 STOREY APARTMENT ON 1,000M² LOT

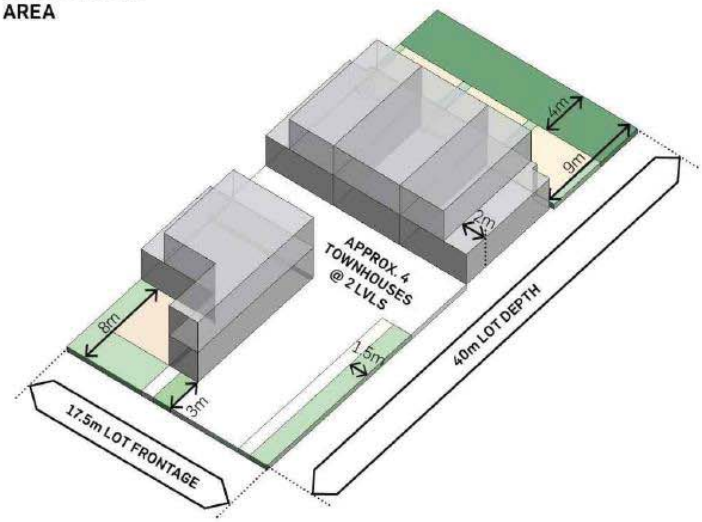
SUMMARY OF REQUIRED PARAMETERS (SCENARIO B):		STATUS	NOTES
Max. Allowable Site Cover:	50% for more than 3 storeys	✓	▪ Complies with AO; ▪ 47% provided to comply with articulation requirements
Max. Building Height:	4 storeys (16m)	✓	▪ Complies with AO: indicative building height 13m (excl. roof)
Max. Wall Length:	30m with a change in building line every 15m of plus or minus 1.5m for a length not less than 5m.	✓	▪ Building articulation is provided midway along the side boundaries. ▪ A change in building line is provided at the front and rear to manage building bulk, as it exceeds 15m. ▪ There are opportunities to provide two buildings on site through a 6m wide building break, but may have implications on yield, communal open space and landscaping outcomes. ▪ Must provide articulation of horizontal and vertical profiles along street frontage
Setbacks:	**Front:** 4m to balcony, eaves, awning and the like and 6m to building wall	✓	▪ Complies with AO
	Side: 4m	✓	▪ Complies with AO
	Rear: 6m to balcony and building wall	✓	▪ Complies with AO
Communal Open Space:	Min. of 15% of site area or 100m² (whichever is greater); Min. 5m wide for developments with more than 10 apartments or 20 townhouses	✗	▪ 10% COS achieved ▪ 15% of total site area for Communal Open Space is difficult to achieve without reducing developable area, affecting yield acquisition. To maximise development area, assumes provision of communal open space on the rooftop.
Landscaped Areas:	▪ Min. 20% of total site area ▪ **Includes Deep Planting:** Min. 10% of total site area; min. 4m wide ▪ Min. 1.5m landscaped area along side boundary ▪ Min. 2m landscaped areas along road frontages	✓	▪ Complies with AO ▪ 10% Deep Planting in addition to 15% Communal Open Space difficult to achieve without reducing developable area and affecting efficient yield acquisition. 4m wide Deep Planting can be practically achieved within the front setback to maximise tree planting opportunity(vs. side setback where growth is constrained)
Private Open Space:	▪ **Ground floor dwellings:** Min. 16m², if a dwelling in a residential care facility or 25m² otherwise ; min. 4m wide ▪ **Above ground floor dwellings:** Min. 10m² for 1 bedroom unit; 16m² for two or more bedroom unit; min. 3m wide	✓	▪ Complies with AO
Apartment Diversity:	Apartment involving 5 or more dwellings: 40% of dwellings have a different number of bedrooms than other dwellings	✓	▪ Complies with AO (57% @ 1-bed; 43% @ 2-bed)
Carparking:	▪ 1 space per 1 bedroom unit ▪ 1.5 space per 2 or more bedroom unit ▪ 1 visitor space per 10 units	✓	▪ Basement parking is outside of deep planting areas ▪ NOTE: it is assumed that the scenarios meet the locational requirements for the lower parking rate on the basis that the spatial analysis found that 90% of MDRZ lots are within 400m of a centre or high frequency public transport.
High-Level Indicative Yield	**Apartments:** Approx. 14 apts total @ ave. 90m²/apt + POS [Assumes 467m² floor plate @ 80% efficiency; Assumes overall mix: 8x 1 bed apt (@ approx. 70sqm), 6x 2 bed apt (@ approx. 90sqm)] Includes: – 2x 1 bed apt @ ground (+ 25m² POS per ground floor apt) – 4 apts/lvl @ lvls 2-4 (+ 16m² POS per apt) [2x @ 1 bed; 2x @ 2 bed per level] **Carparking:** 19 spaces required (17 apt spaces; 2 visitor) (Assumes 42m² per carparking space as basement parking) 19 carparking spaces provided: – 14 basement spaces provided (assumes basement @ 60% of site area; 600m²); – 5 spaces provided at-grade (approx. 69% of building footprint; 324m²)	N/A	▪ Yield and car parking provision will differ based on bedroom mix ▪ Includes 20% allowance for circulation, services, refuse & storage

Note: Scenario testing does not consider building separation requirements as the site has been considered in isolation.

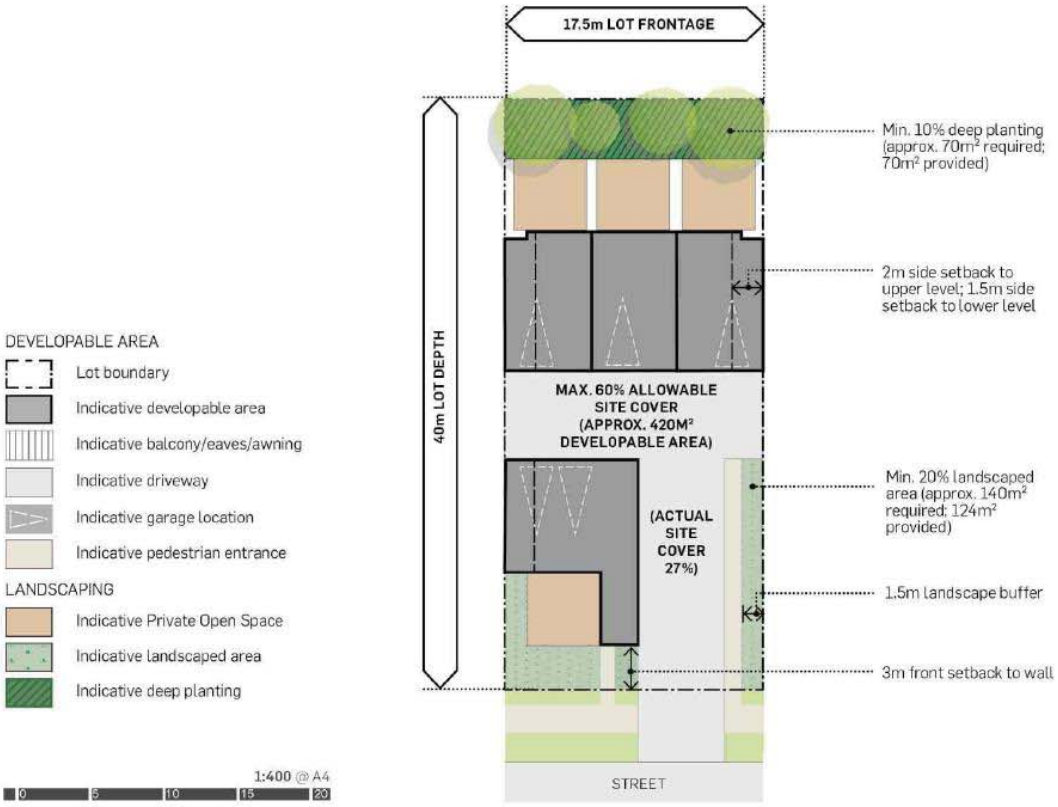
URBIS

REDLANDS MULTIPLE DWELLING CODE REVIEW
SCENARIO B: ASSESSMENT

AXONOMETRIC: TYPICAL DEVELOPABLE AREA



SITE PLAN: TYPICAL DEVELOPABLE AREA



URBIS

REDLANDS MULTIPLE DWELLING CODE REVIEW
SCENARIO C: TOWNHOUSE ON 700M² LOT

Achieving
Not achieved

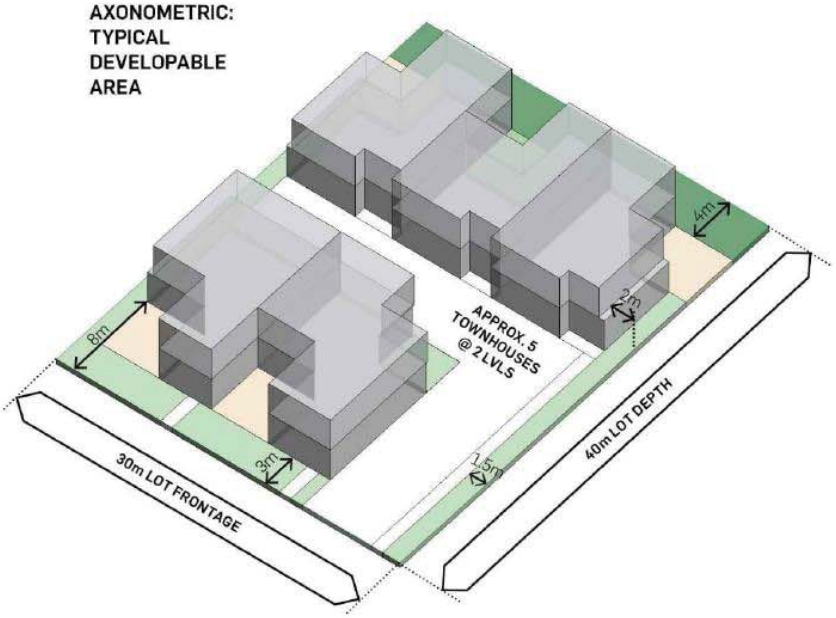
SUMMARY OF REQUIRED PARAMETERS (SCENARIO C):		STATUS	NOTES
Max. Allowable Site Cover:	60% for a Townhouse	✓	▪ Complies with AO ▪ 27% site cover achieved to incorporate driveway access, deep planting and POS requirementss
Max. Building Height:	2 storeys	✓	▪ Complies with AO
Setbacks:	**Front:** 3m to building wall and 5.5m to garage	✓	▪ Complies with AO
	Side: 1.5m for building wall up to 4.5m high; 2m for building wall upto 7.5m high Built to boundary wall, not exceeding 4.5m in height and 9m in length along any one boundary	✓	▪ Complies with AO ▪ Built to boundary for garage configuration less practical - due to turning circle aisle exstension requirements.
	Rear: 3m (Scenario is based on 4m rear setback due to deep planting requirements)	✓	▪ Complies with AO ▪ Assumes a 4 metre rear setback to achieve deep planting requirements – despite the minimum requirement being 3 metres.
Communal Open Space:	N/A (less than 20 townhouse dwellings)	N/A	▪ N/A
Landscaped Areas:	▪ Min. 20% of total site area ▪ **Includes Deep Planting:** Min. 10% of total site area; min. 4m wide ▪ Min. 1.5m landscaped area along side boundary ▪ Min. 2m landscaped areas along road frontages	✗	▪ Deep Planting complies with AO ▪ Total landscaped area does not comply with AO ▪ POS and driveway access requirements limit availability of landscaped area ▪ Assumes a 4m rear setback to achieve deep planting requirements – despite the minimum requirement being 3m.
Private Open Space:	▪ **Ground floor dwellings:** Min. 16m², if a dwelling in a residential care facility or 25m² otherwise ; min. 4m wide	✓	▪ Complies with AO ▪ Located within side boundaries behind front building line of each townhouse
Apartment Diversity:	N/A (less than 5 townhouse dwellings)	N/A	▪ N/A
Carparking:	▪ 1 space per 1 bedroom unit ▪ 1.5 space per 2 bedroom unit ▪ 2 spaces per 3 bedroom unit ▪ 1 visitor space per 10 units	N/A	▪ NOTE: it is assumed that the scenarios meet the locational requirements for the lower parking rate on the basis that the spatial analysis found that 90% of MDRZ lots are within 400m of a centre or high frequency public transport.
High-Level Indicative Yield	**Townhouses:** Total approx: 3x two-storey townhouses ▪ Approx. 3x 1-bed, two-storey townhouses @ min. 90m²/ townhouse (incl. single garage) + 25m² POS (Assumes min. 55m² ground floor plate; 1-bed townhouse) ▪ Approx. 1x 2-bed, two-storey townhouses @ min. 140m²/ townhouse (incl. double garage) + 25m² POS (Assumes min. 80m² ground floor plate; 2-bed townhouse) **Carparking:** 5 spaces required (1 spaces per 1-bed townhouse; 1.5 spaces per 2-bed townhouse; 0 visitor) 5 carparking spaces provided: – 1x double garage for 1x 2-bed townhouse – 1x single garage per 3x 1-bed townhouses	N/A	▪ Yield and car parking provision will differ based on bedroom mix ▪ For practicality, parking spaces have been rounded up per townhouse

Note: Scenario testing does not consider building separation requirements as the site has been considered in isolation.

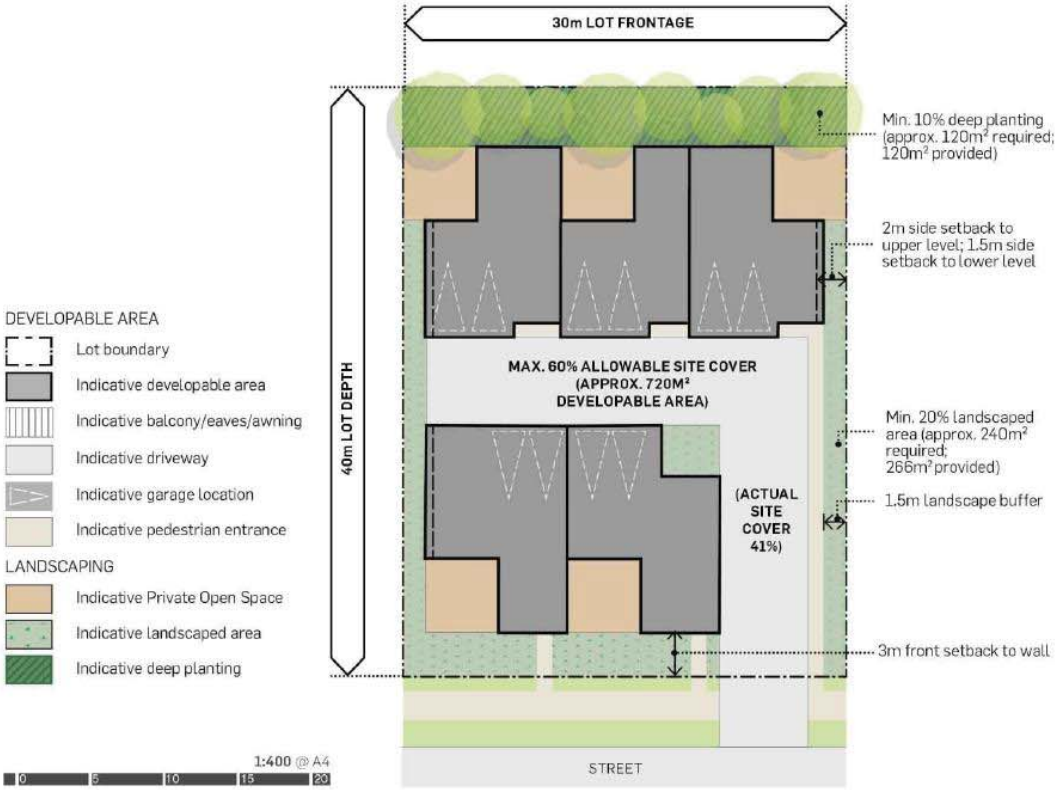
URBIS

REDLANDS MULTIPLE DWELLING CODE REVIEW
SCENARIO C: ASSESSMENT

AXONOMETRIC: TYPICAL DEVELOPABLE AREA



SITE PLAN: TYPICAL DEVELOPABLE AREA



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REDLANDS MULTIPLE DWELLING CODE REVIEW
SCENARIO D: 2 STOREY TOWNHOUSE ON 1,200M² LOT

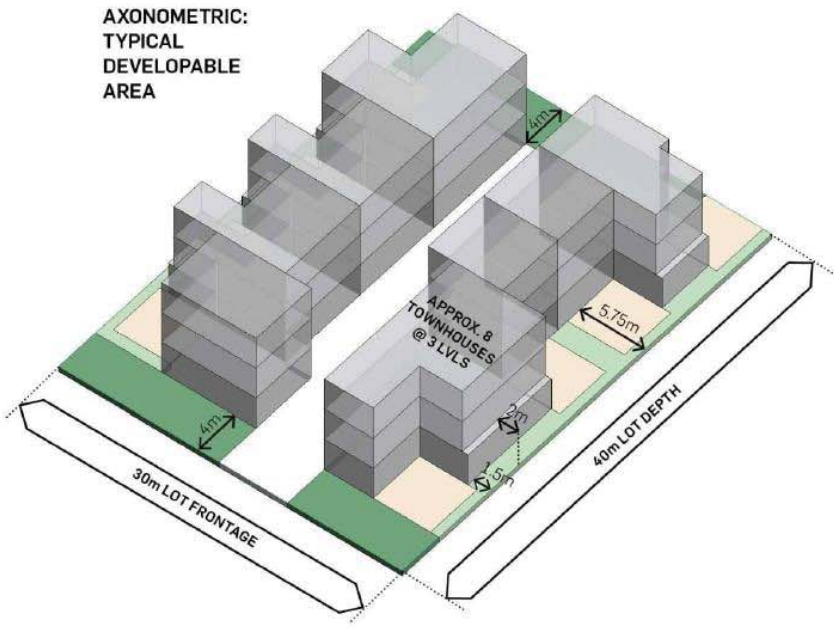
Achieving

SUMMARY OF REQUIRED PARAMETERS (SCENARIO D):		STATUS	NOTES
Max. Allowable Site Cover:	60% for a Townhouse		▪ Complies with AO ▪ 41% site cover achieved to incorporate driveway access and POS requirements
Max. Building Height:	2 storeys		▪ Complies with AO
Setbacks:	**Front:** 3m to building wall and 5.5m to garage		▪ Complies with AO
	Side: 2m for building wall upto 7.5m high		▪ Complies with AO
	Rear: 3m		▪ Complies with AO ▪ Deep planting requires 4m min. width, making 3m rear setback difficult to achieve
Communal Open Space:	n/a (less than 20 townhouse dwellings)	N/A	▪ N/A
Landscaped Areas:	▪ Min. 20% of total site area ▪ **Includes Deep Planting:** Min. 10% of total site area; min. 4m wide ▪ Min 1.5m landscaped area along side boundary ▪ Min 2m landscaped areas along road frontages		▪ Deep Planting complies with AO ▪ Total landscaped area complies with AO ▪ Assumes a 4m rear setback to achieve deep planting requirements – despite the minimum requirement being 3m.
Private Open Space:	▪ **Ground floor dwellings:** Min. 16m², if a dwelling in a residential care facility or 25m² otherwise ; min. 4m wide		▪ Complies with AO
Apartment Diversity:	Townhouse involving 5 or more dwellings: 20% of dwellings have a different number of bedrooms than other dwellings		▪ Complies with AO ▪ 80% @ 3-bed; 20% @ 2-bed
Carparking:	▪ 1 space per 1 bedroom unit ▪ 1.5 spaces per 2 or more bedroom unit ▪ 1 visitor space per 10 units		▪ Complies with AO ▪ Required car parking provision will differ based on bedroom mix ▪ NOTE: it is assumed that the scenarios meet the locational requirements for the lower parking rate on the basis that the spatial analysis found that 90% of MDRZ lots are within 400m of a centre or high frequency public transport.
High-Level Indicative Yield	**Townhouses:** Total approx: 5x two-storey townhouses ▪ Approx. 4x 3-bed, two-storey townhouses @ min. 170m²/ townhouse (incl. double garage) + 25m² POS (Assumes min. 85m² floor plate; 3-bed townhouse) ▪ Approx. 1x 2-bed, two-storey townhouses @ min. 140m²/ townhouse (incl. double garage) + 25m² POS (Assumes min. 70m² floor plate; 2-bed townhouse) **Carparking:** 10 spaces required (2 spaces per townhouse; 0 visitor) 10 carparking spaces provided: – 1x double garage per townhouse	N/A	▪ Yield and car parking provision will differ based on bedroom mix ▪ For practicality, parking spaces have been rounded up per townhouse

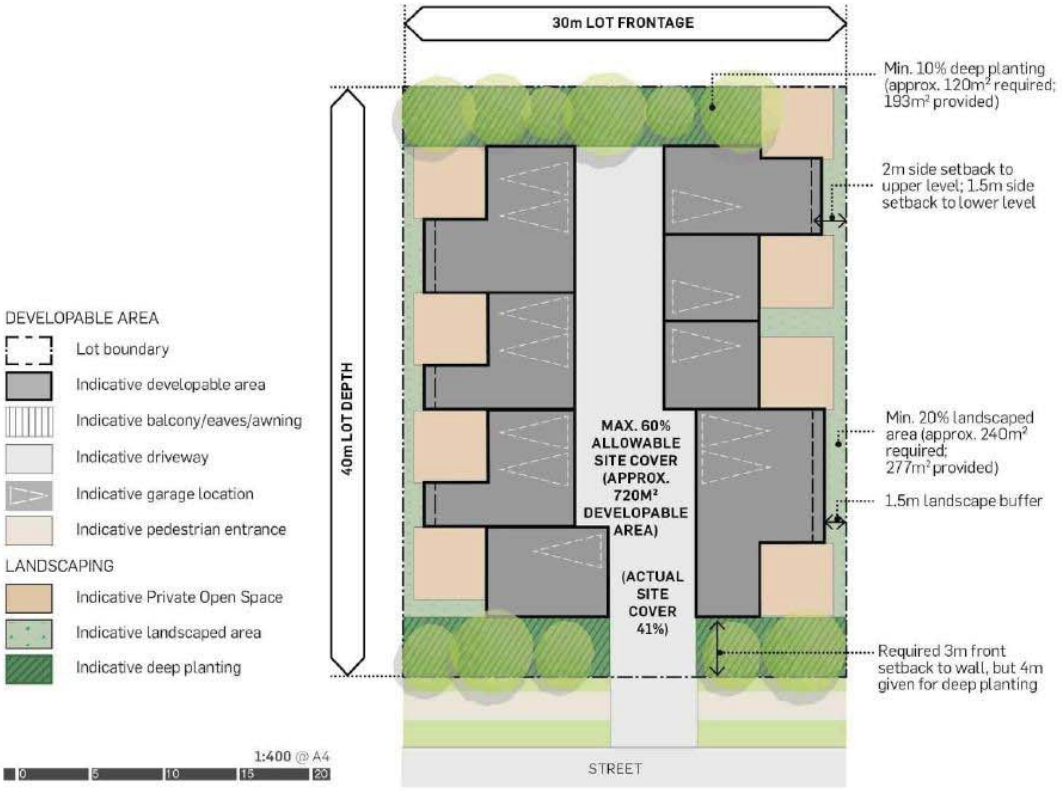
Note: Scenario testing does not consider building separation requirements as the site has been considered in isolation.

URBIS

REDLANDS MULTIPLE DWELLING CODE REVIEW
SCENARIO D: ASSESSMENT



SITE PLAN: TYPICAL DEVELOPABLE AREA



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REDLANDS MULTIPLE DWELLING CODE REVIEW
SCENARIO E: 3 STOREY TOWNHOUSE ON 1,200M² LOT

Achieving

SUMMARY OF REQUIRED PARAMETERS (SCENARIO E):		STATUS	NOTES
Max. Allowable Site Cover:	60% for a Townhouse		▪ Complies with AO ▪ 41% site cover achieved to incorporate driveway access and POS requirements
Max. Building Height:	3 storeys		▪ Complies with AO
Setbacks:	**Front:** 3m to building wall and 5.5m to garage		▪ Complies with AO ▪ Deep planting requires 4m min. width, making 3m rear setback difficult to achieve
	Side: 2m for building wall up to 7.5m high		▪ Complies with AO
	Rear: 3m		▪ Complies with AO ▪ Deep planting requires 4m min. width, making 3m front setback difficult to achieve
Communal Open Space:	n/a (less than 20 townhouse dwellings)	N/A	▪ N/A
Landscaped Areas:	▪ Min. 20% of total site area ▪ **Includes Deep Planting:** Min. 10% of total site area; min. 4m wide ▪ Min 1.5m landscaped area along side boundary ▪ Min 2m landscaped areas along road frontages		▪ Deep Planting complies with AO ▪ Total landscaped area complies with AO
Private Open Space:	▪ **Ground floor dwellings:** Min. 16m², if a dwelling in a residential care facility or 25m² otherwise ; min. 4m wide		▪ Complies with AO
Apartment Diversity:	Townhouse involving 5 or more dwellings: 20% of dwellings have a different number of bedrooms than other dwellings		▪ Complies with AO ▪ 50% @ 3-bed; 50% @ 2-bed
Carparking:	▪ 1 space per 1 bedroom unit ▪ 1.5 spaces per 2 or more bedroom unit ▪ 1 visitor space per 10 units		▪ Complies with AO ▪ Required car parking provision will differ based on bedroom mix ▪ No visitor space provided ▪ NOTE: it is assumed that the scenarios meet the locational requirements for the lower parking rate on the basis that the spatial analysis found that 90% of MDRZ lots are within 400m of a centre or high frequency public transport.
High-Level Indicative Yield	**Townhouses:** Total approx: 8x three-storey townhouses ▪ Approx. 4x 3-bed, three-storey townhouses @ min. 170m²/ townhouse (incl. double garage) + 25m² POS (Assumes min. 59m² ground floor plate; 3-bed townhouse) ▪ Approx. 4x 1-bed, three-storey townhouses @ min. 110m²/ townhouse (incl. single garage) + 25m² POS (Assumes min. 39m² ground floor plate; 1-bed townhouse) **Carparking:** 12 spaces required (1 spaces per 1-bed townhouse; 2 spaces per 3-bed townhouse; 0 visitor) 12 carparking spaces provided: – 4x double garage per 3-bed townhouse – 4x single garage per 2-bed townhouse	N/A	▪ Yield and car parking provision will differ based on bedroom mix ▪ For practicality, parking spaces have been rounded up per townhouse ▪ Parking requirements (i.e. double garage for 2 or more bedroom) limit amount of 2-bed and 3-bed townhouses provided. ▪ Similar yield could be provided with a two-storey max. building height

Note: Scenario testing does not consider building separation requirements as the site has been considered in isolation.

URBIS

REDLANDS MULTIPLE DWELLING CODE REVIEW
SCENARIO E: ASSESSMENT

SUMMARY OF SCENARIO TESTING

A summary of the outcomes of the scenario testing is discussed below.

Only the acceptable outcomes were tested in the scenarios, with the exception of performance outcome PO8 relating to street/public space activation (where no acceptable outcome was prescribed). A development may seek an alternative outcome to the acceptable outcome, provided the performance outcome is met.

For this reason, it is essential to undertake testing of the acceptable outcomes to ensure it fully achieves the associated performance outcomes, and be capable of delivering a high-quality medium density built form consistent with Redland City's character, and with community views and expectations.

SCENARIO A:

3 STOREY APARTMENT ON 700M² LOT

- **Scenario A delivers approximately 7 apartments with 47% site cover (average 90m² of GFA, assumes 330m² floorplate @ 80% efficiency).**
- Building articulation for walls exceeding a length of 30m (AO19.1) is only required along the side boundaries on a narrow site. To achieve a reasonable developable area, articulation requirements for sites less than 1,000m² should be reviewed and subject to feasibility studies.
- Scenario A allows delivery of 1 apartment on ground floor and 3 apartments per floor above ground, with 80% efficiency assumed. This scenario allows delivery of 30% 2 bedroom units and 70% 1 bedroom units, as a result of prioritising yield. The achieved apartment diversity does not comply with the 60%-40% split requirement under AO6, and therefore should be reviewed and subject to further feasibility studies.
- Residential yield and car parking provision will differ based on bedroom mix and will influence car parking requirements. Imposing bedroom size mix requirement restricts design options and has implications for development feasibility.
- This scenario provides car parking spaces at grade. At grade parking reduces opportunities for provision of POS and ground level apartment configuration towards the street frontage due to ramping, aisle width and building core requirements. This should be subject to feasibility testing.
- Setback requirements for smaller lots should be reviewed. The current setbacks presents constraints for maximising site cover. This scenario involves a 47% site cover, which is below the maximum requirement (50%). Setbacks could be greater for larger lots, e.g. over 1,000m².

SCENARIO B:

4 STOREY APARTMENT ON 1,000M² LOT

- **Scenario B delivers approximately 14 apartments with 47% site cover (average 90m² of GFA, assumes 467m² floorplate @ 80% efficiency).**
- Scenario B allows delivery of only 10% COS. The 15% COS site area requirement should be reviewed as it is difficult to achieve on the ground level without reducing developable area and affecting yield. Alternatively, the minimum width could be amended to enable provision of COS within side setback areas. To meet the minimum requirement and maximise yield, Council should consider the opportunity to provide COS on the rooftop or internal to the building in a common area. This should be subject to feasibility studies.
- Scenario B only allows delivery of 2 apartments on ground floor and 4 apartments per floor above ground, with 80% efficiency assumed.
- This scenario assumes delivery of 57% of 1 bedroom units and 43% of 2 bedroom units to meet the apartment diversity requirements. This apartment diversity should be reviewed and subject to feasibility studies.
- Residential yield and car parking provision will differ based on bedroom mix. This scenario provides basement and at grade parking towards the front of the site due to ramp and aisle width requirements.

SUMMARY OF SCENARIO TESTING

SCENARIO C:

2 STOREY TOWNHOUSE ON 700M² LOT

- **Scenario C delivers 4 x two storey townhouses (average 103m² of GFA including a mix of single and double garages).**
- Scenario C involves a site cover significantly less than the maximum requirement due to driveway and POS requirements.
- Driveway and POS requirements limit ability to achieve compliance with landscaping requirements on a 700m² lot size.
- This scenario assumes a 4 metre rear setback to achieve deep planting requirements – despite the minimum requirement being 3 metres.
- The 1.5m minimum landscaping requirement for side boundaries should be reviewed to account for space required for car parking and circulation.
- Scenario C allows delivery of 4 x two-storey townhouse products – 3 x 1 bedroom products with single garages and 1 x 2 bedroom product with double garage. All 5 townhouses comprise 25m² private open space.
- Double garages cannot be practically achieved for townhouses built to boundary on narrow lots due to spatial requirements for turning circles and pedestrian circulation.
- Residential yield and car parking provision will differ based on bedroom mix. This scenario assumes the locational requirements for lower parking rate is met.

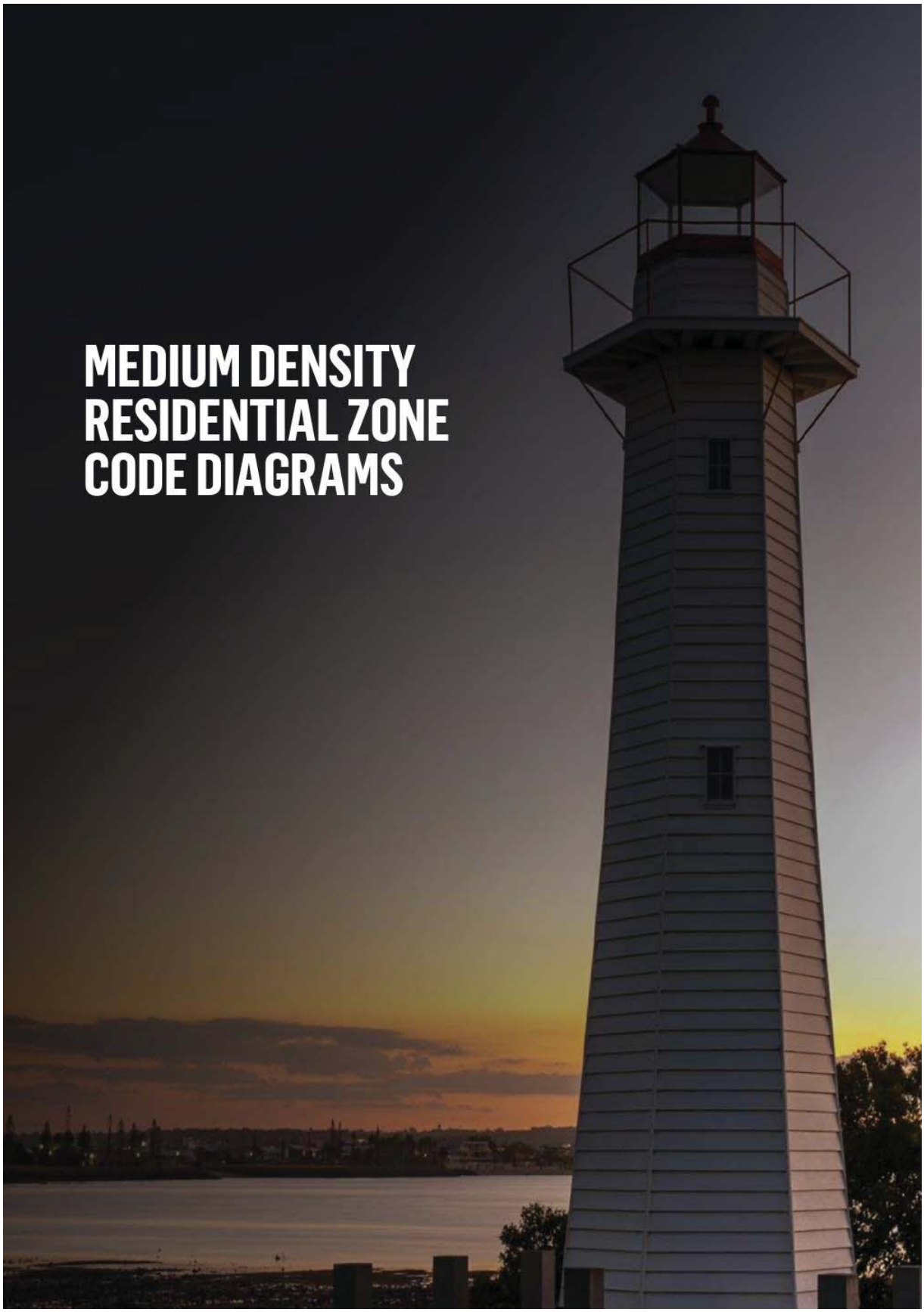
SCENARIO D:

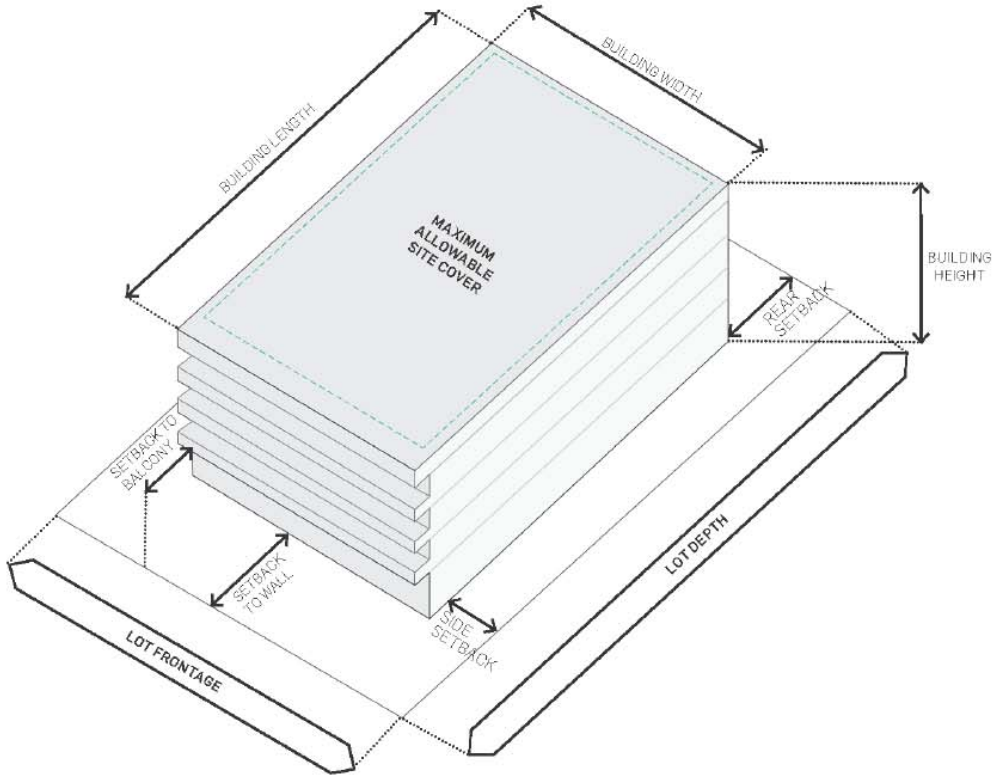
2 STOREY TOWNHOUSE ON 1,200M² LOT

- **Scenario D delivers 5 x two storey townhouses (average 170m² of GFA including double garage).**
- Scenario D involves a site cover less than the maximum requirement, due to driveway and POS requirements.
- This scenario assumes a 4 metre rear setback to achieve deep planting requirements – despite the minimum requirement being 3 metres.
- The 1.5m minimum landscaping requirement for side boundaries should be reviewed to account for space required for car parking and circulation.
- Scenario D allows delivery of 5 x two-storey townhouse products – 4 x 3 bedroom products and 1 x 2 bedroom product. All 5 townhouses consist of double garages and POS.
- POS and deep planting requirements limit opportunities to locate garages towards the street frontage. This has implications for achieving a high quality street frontage.
- Residential yield and car parking provision will differ based on bedroom mix. This scenario assumes the locational requirements for lower parking rate is met.

SCENARIO E: 3 STOREY TOWNHOUSE ON 1,200M² LOT

- **Scenario E delivers 8 x three storey townhouses (average 140m² GFA including a mix of single and double garages).**
- Scenario E involves a site cover less than the maximum requirement, due to driveway and POS requirements.
- This scenario assumes a 4 metre rear setback to achieve deep planting requirements – despite the minimum requirement being 3 metres.
- Scenario E allows delivery of 8 x three-storey townhouse products – 4 x 3 bedroom products with double garages and 4 x 1 bedroom products with single garages. All 8 townhouses comprises 25m² private open spaces.
- Residential yield and car parking provision will differ based on bedroom mix. This scenario assumes the locational requirements for lower parking rate is met.





TYPICAL ENVELOPE FOR MAXIMUM DEVELOPABLE AREA

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URBIS

REDLANDS MULTIPLE DWELLING CODE REVIEW
MAXIMUM DEVELOPABLE AREA

PERFORMANCE OUTCOMES

PO08 Development provides for interaction with the street and public spaces by:

(1) providing dwellings or habitable rooms at ground level for apartments; and

(2) ensuring ground level dwellings have direct and safe pedestrian access to the street or public space where possible.

PO15 Buildings are designed to:

(1) contribute to an attractive streetscape and intended character of the local area;

(2) be orientated to the street;

(3) incorporate balconies that address street frontages and public spaces;

(4) provide modulation and articulation in the building façade horizontal and vertical profiles;

(5) provide projections and recesses in the facade which reflect changes of internal functions of buildings, including circulation;

(6) include variation in building materials, contrasting colours, textures and finishes that emphasises architectural features;

(7) use similar proportioned roof forms, doors, windows and balconies to compliment the local character;

(8) break up the appearance of large buildings through roof form, articulation, projections and recesses that reflect the existing streetscape scale; and

(9) articulate building entrances and openings.

PO16 Development ensures that:

(1) corner sites address both street frontages; and

(2) key corners are given prominence by changes in articulation, materials or colour and roof expression.

PO17 Development for services and related structures:

(1) are accessible for maintenance;

(2) are integrated to blend into the overall development design; and

(3) are designed and orientated to not visually dominate the street frontage.

PO18 A main pedestrian entrance is provided for an apartment that connects the street with the apartment building that:

(1) is separated from the vehicle entry

(2) provides safe and convenient access to the building for pedestrians;

(3) includes an entry treatment that provides, waiting space off the footpath, lighting, mailboxes, building signage and numbering.

PO20 Design elements promote a subtropical and climate responsive design character through:

(1) the use of deep balconies, decks and eaves;

(2) orientating habitable room windows, private open space (balconies and terraces) to the north where possible;

(3) maximising dwellings with a northern aspect;

(4) maximising dual orientation of habitable rooms to provide for natural cross ventilation;

(5) integration of buildings with landscape and deep planting areas to create a pleasant micro-climate;

(6) screening habitable rooms from the western sun using building and landscape elements.

PO23 Driveways are:

(1) designed to integrate into the overall building design and define the public and private space;

(2) incorporate high quality pavement materials, textures and colours to contribute to an attractive and interesting streetscape;

(3) located on secondary/rear frontages, where available, for an apartment; and

(4) visually shorten the length of driveway that can be seen from the street by placement of buildings, staggered road alignment, planting and landscape treatments and varied materials.

PO24 Development provides front fences or walls along street frontages or public spaces that create an attractive streetscape by:

(1) incorporating a mixture of building materials that complement the design of buildings

(2) provide for visual interest and soften the visual impact where significant in length

(3) highlight entrance to the property.

PO25 Development is designed to create an attractive streetscape and discourage crime and anti-social behaviour by:

(1) maximising opportunities for casual surveillance of the street, public places, communal open space (where provided) pedestrian and cycle paths, including the primary pedestrian entrance (where provided) and car parking areas;

(2) ensuring spaces are well lit;

(3) minimising potential concealment and entrapment opportunities;

(4) providing direct movements with clear unobscured sight lines; and

(5) fences and walls along a street frontage or public space use visually permeable materials and treatments

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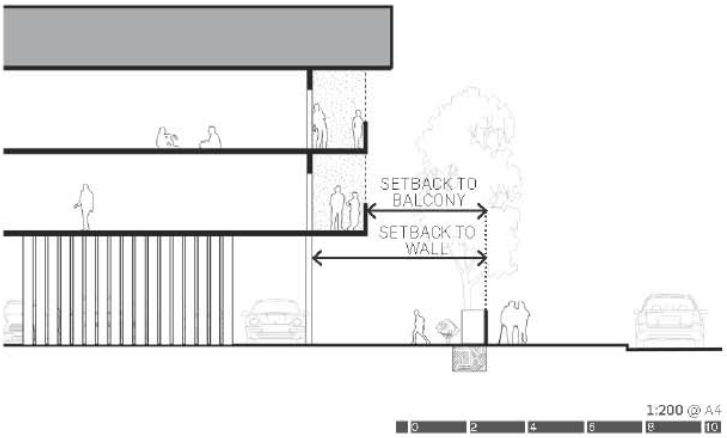
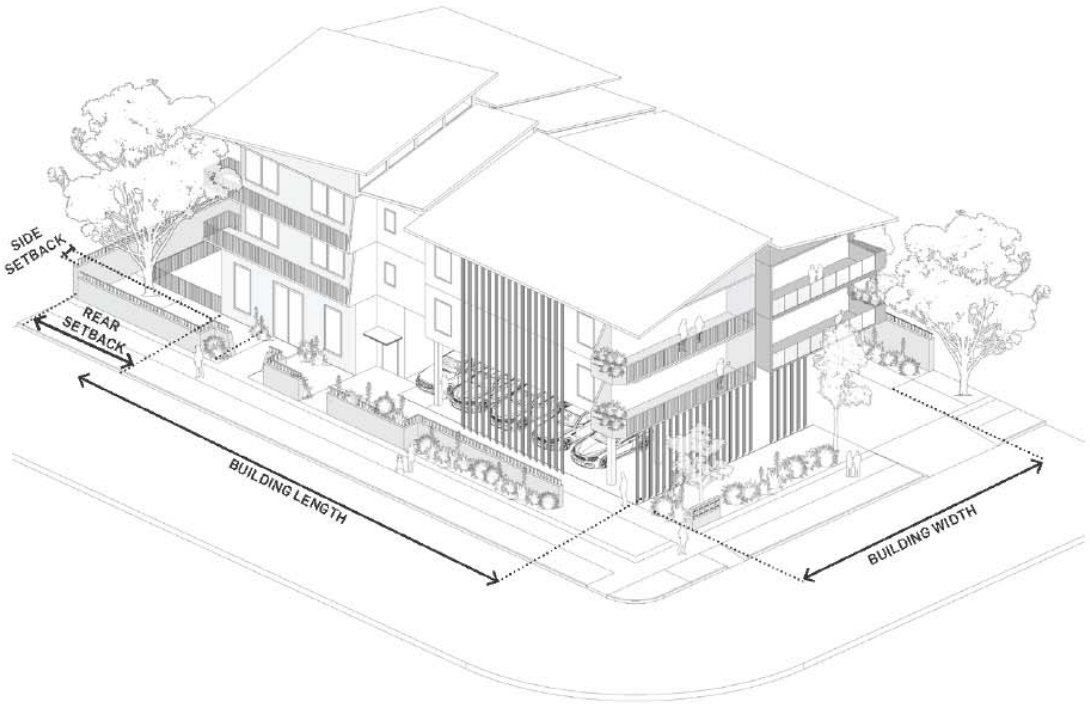
REDLANDS MULTIPLE DWELLING CODE REVIEW
STREETSCAPE FOR A 3-STOREY APARTMENT

TYPICAL STREET FRONTAGE INTERFACE: SECTION





TYPICAL STREET FRONTAGE INTERFACE: AXONOMETRIC

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REDLANDS MULTIPLE DWELLING CODE REVIEW
STREETSCAPE FOR A 3-STOREY APARTMENT

PERFORMANCE OUTCOMES

P015 Buildings are designed to:
(1) contribute to an attractive streetscape and intended character of the local area;
(2) be orientated to the street;
(3) incorporate balconies that address street frontages and public spaces;
(4) provide modulation and articulation in the building façade horizontal and vertical profiles;
(5) provide projections and recesses in the facade which reflect changes of internal functions of buildings, including circulation;
(6) include variation in building materials, contrasting colours, textures and finishes that emphasises architectural features;
(7) use similar proportioned roof forms, doors, windows and balconies to compliment the local character;
(8) break up the appearance of large buildings through roof form, articulation, projections and recesses that reflect the existing streetscape scale; and
(9) articulate building entrances and openings.

P021 The design of roof form, rooftops and building caps of apartments:
(1) provides an interesting and attractive roofscape that enhances the architectural distinction of the building and makes a positive contribution to the local character;
(2) is articulated to reduce the bulk and scale of a building when viewed from the street
(3) incorporates variety in design;
(4) maximises solar access during winter and provides shade in summer;
(5) incorporates a variety in design; and
(6) effectively integrates or screens service structures, plant and equipment and provides for the future inclusion of additional plant and equipment.

P025 The design of roof form, rooftops and building caps of apartments:
(1) provides an interesting and attractive roofscape that enhances the architectural distinction of the building and makes a positive contribution to the local character;
(2) is articulated to reduce the bulk and scale of a building when viewed from the street
(3) incorporates variety in design;
(4) maximises solar access during winter and provides shade in summer;
(5) incorporates a variety in design; and
(6) effectively integrates or screens service structures, plant and equipment and provides for the future inclusion of additional plant and equipment.

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REDLANDS MULTIPLE DWELLING CODE REVIEW
ROOF TYPES

PERFORMANCE OUTCOMES

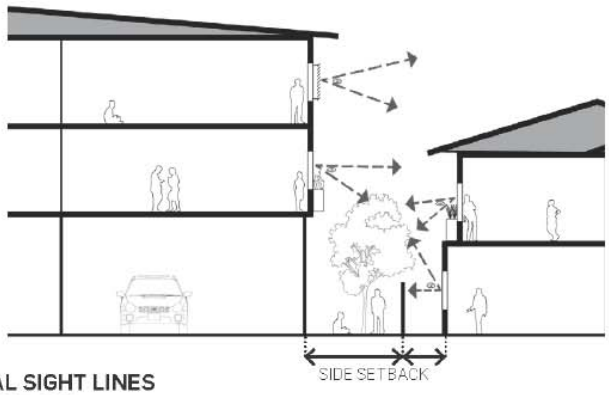
PO04 Development involving an apartment with 10 or more dwellings or a townhouse with 20 or more dwellings provides communal open space that:
(1) is readily accessible, usable and safe;
(2) provides flexible spaces and recreation facilities suitable for a range of activities;
(3) is landscaped to provide shade creating a pleasant micro-climate and for visual relief to soften the impact of building and hardstand areas;
(4) provides opportunity for casual social interaction;
(5) is designed and located to reduce impacts on the amenity of residents of the development and neighbouring properties;
(6) is co-located but separate from deep planting areas; and
(7) reduce impervious areas to improve stormwater filtration.

PO25 Development is designed to create an attractive streetscape and discourage crime and anti-social behaviour by:
(1) maximising opportunities for casual surveillance of the street, public places, communal open space (where provided) pedestrian and cycle paths, including the primary pedestrian entrance (where provided) and car parking areas;
(2) ensuring spaces are well lit;
(3) minimising potential concealment and entrapment opportunities;
(4) providing direct movements with clear unobscured sight lines; and
(5) fences and walls along a street frontage or public space use visually permeable materials and treatments

PO26 Privacy between dwelling units on the site and adjoining sites is achieved by effective building design and the location of windows and outdoor open spaces to prevent overlooking into habitable rooms or private open space areas or through the use of screening devices. Where screening devices are used, they are integrated with the building design.

PO27 Development provides side and rear fencing that protects the privacy and amenity of adjoining properties.

PO30 Deep planting areas are provided that:
(1) are located to retain or establish significant trees to soften the built form
(2) are co-located with communal open space, street trees or deep planting areas on adjoining properties
(3) are accessible to provide informal recreation spaces for residents
(4) are of sufficient size and dimension to support the retention or establishment of significant trees that at maturity compliment the scale and height of the built form
(5) are open to the sky with access to light and rainfall
(6) are maintained exclusively for landscaping, with no underground development or infrastructure
(7) reduce urban heat island effects by improving the micro-climate
(8) provide water quality and quantity benefits from the natural filtration of rainfall into the ground.



TYPICAL SIGHT LINES AT BOUNDARY

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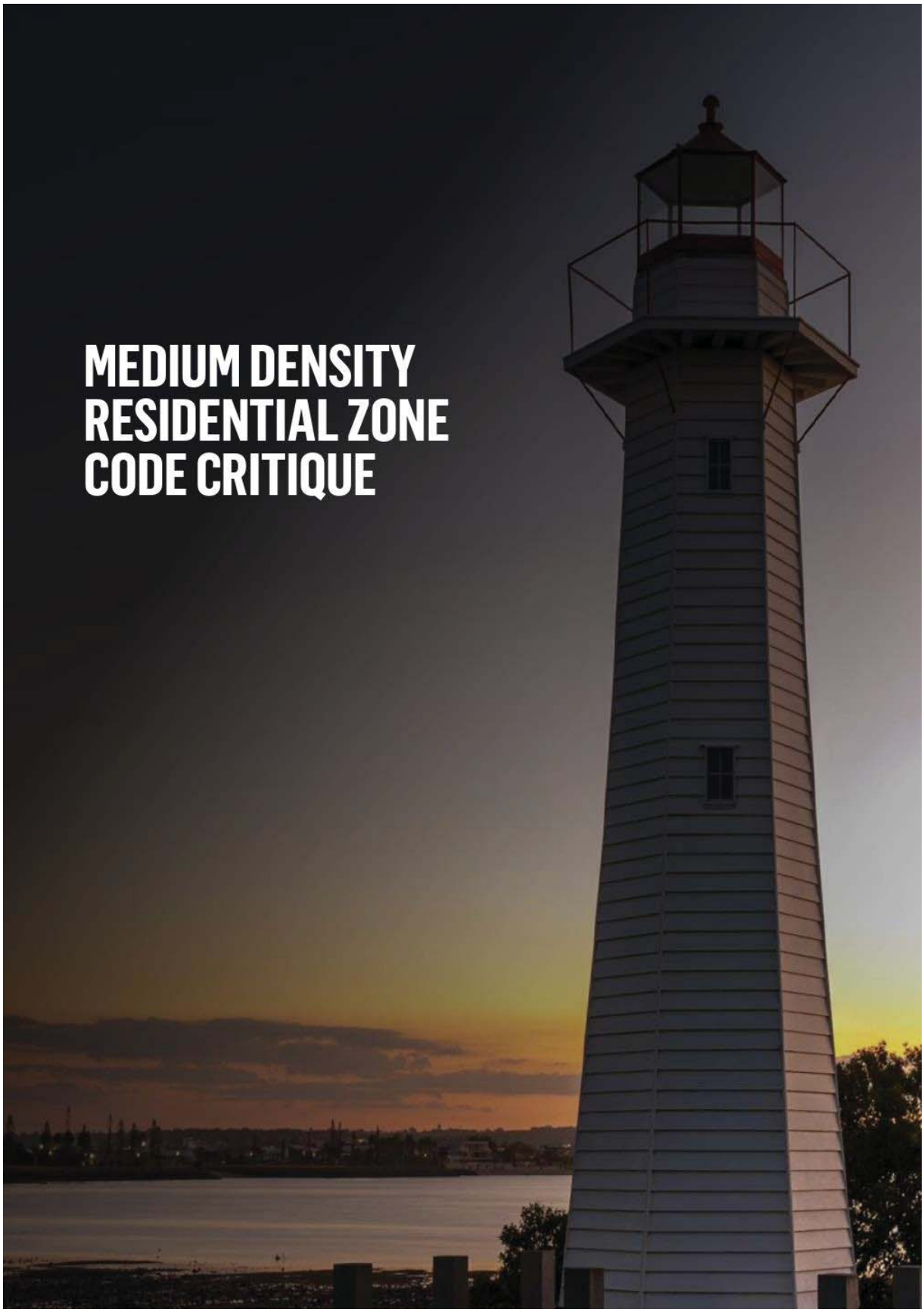
REDLANDS MULTIPLE DWELLING CODE REVIEW
PRIVACY SECTIONS



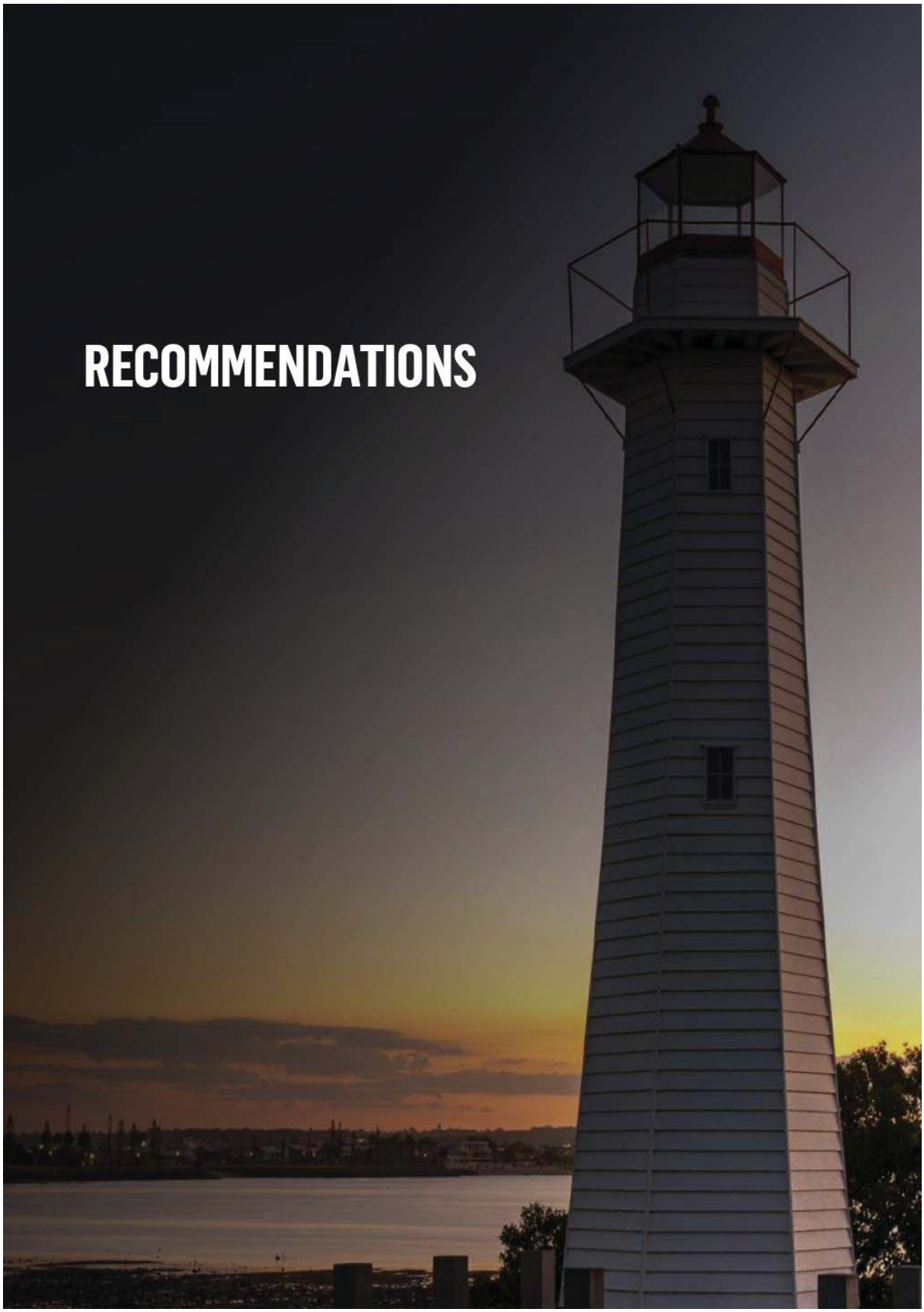
MEDIUM DENSITY RESIDENTIAL ZONE CODE CRITIQUE

In collaboration with Council, Urbis has undertaken a review of the current draft of the proposed Medium Density Residential Zone Code and provided specific comments and suggestions in track changes.

The copy of our comments and suggestions is included at **Appendix A** and focuses on:

- The approach to the overall outcomes to ensure consistency in drafting;
- Suggestions regarding market uncertainty that will potentially be created through requirements for apartment diversity;
- Approach to site cover and setbacks, including requirements for articulation;
- Approach to the location of habitable rooms in ground floor dwellings;
- Legibility and safety implications for pedestrians in conjunction with ground level car parking;
- Clarity around communal open space, deep planting and landscaped areas;
- Consideration of implementing a single approach to building height – either in metres or storeys, not both.

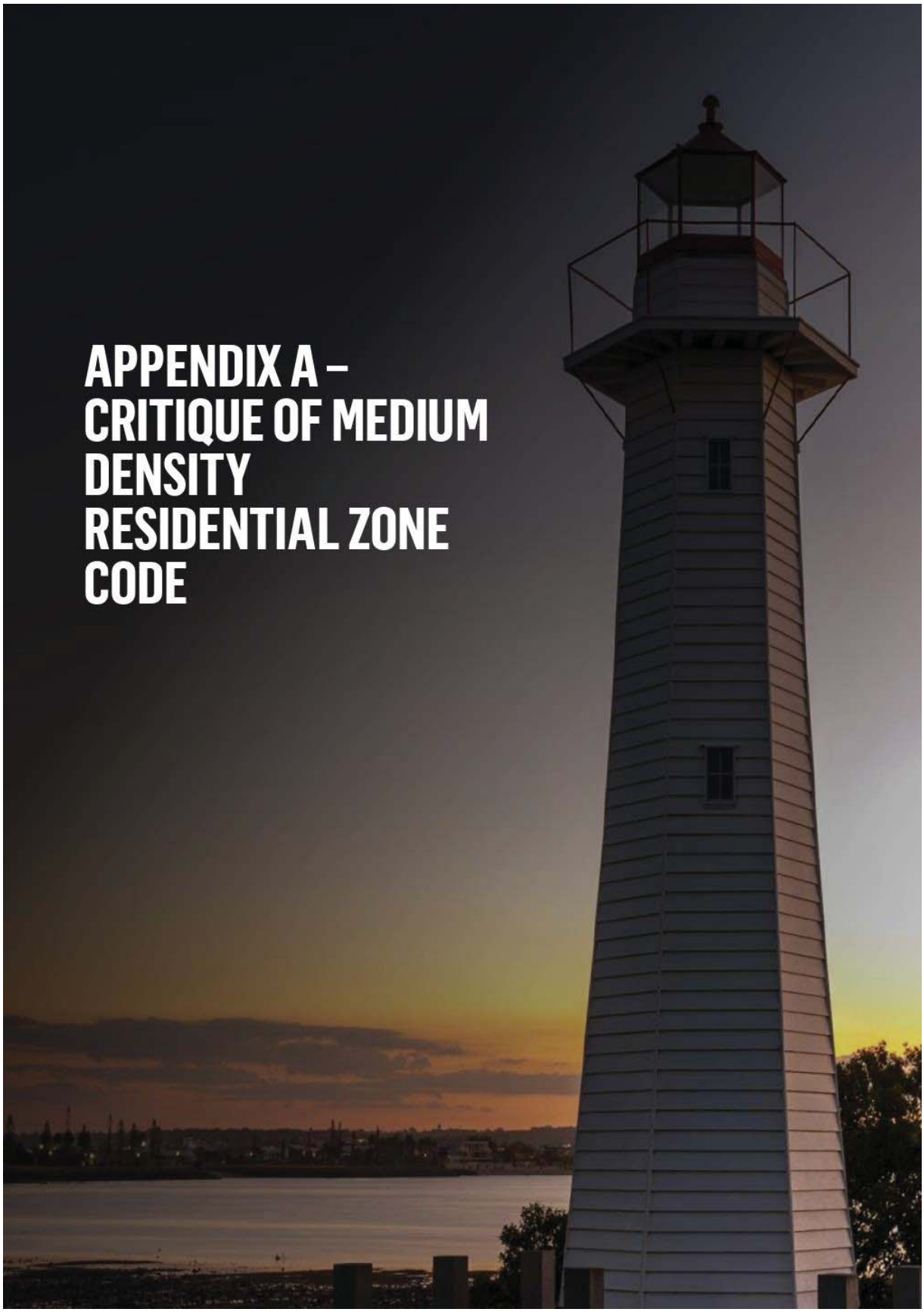
This critique has informed the recommendations to Council.



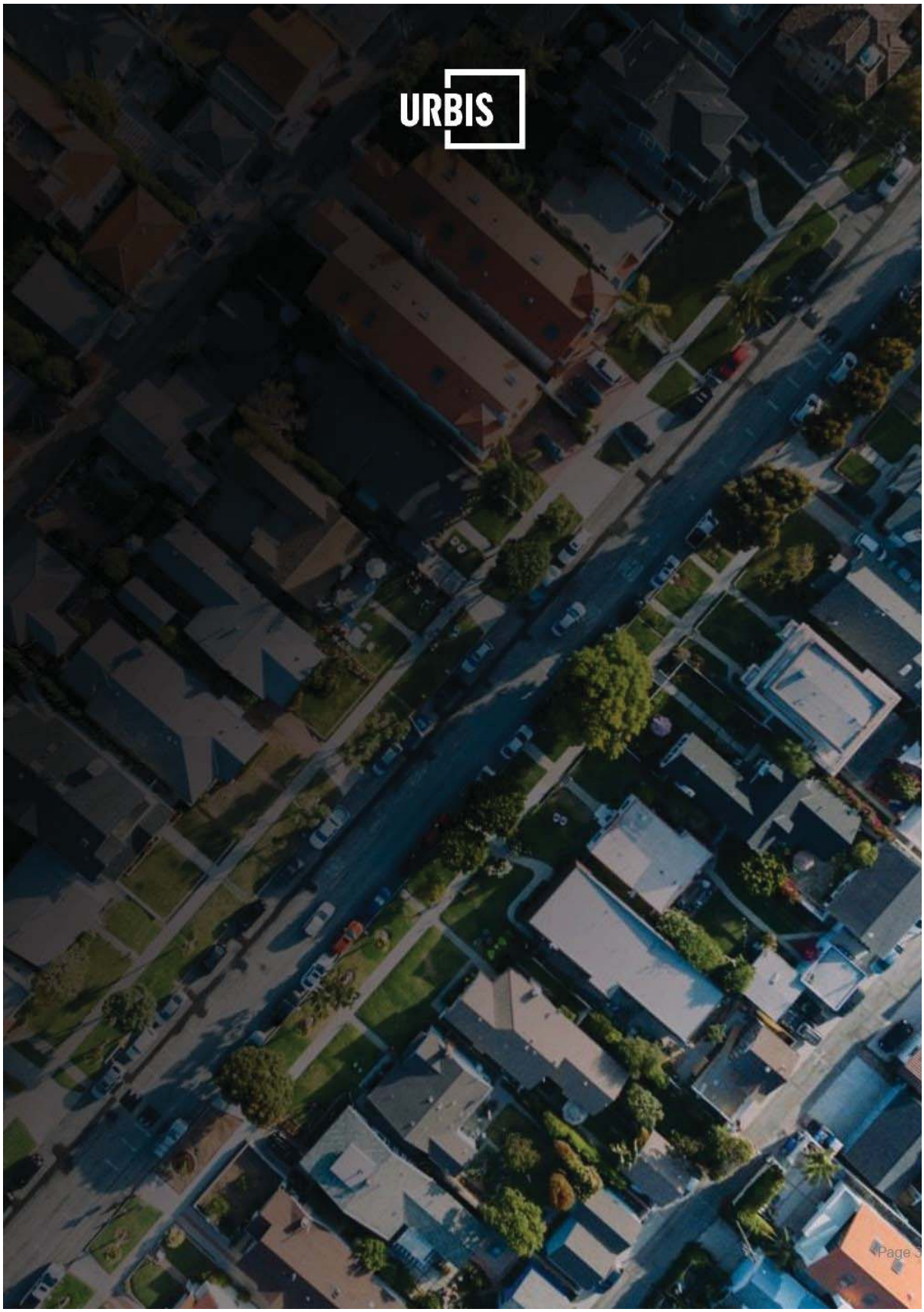
SUMMARY OF RECOMMENDATIONS

Overall recommendations for the proposed amendments to the Medium Density Residential Zone Code include:

- **01 Site Cover –** The scenario testing has demonstrated different site cover outcomes.
  - Scenario B (4 storey apartments on 1,000m² lot size) provided a maximum site cover within the building envelope.
  - Scenario A (3 storey apartments on 700m² lot size) did not meet the maximum site cover, providing slightly less at 47%. Consideration should be given to reducing the setbacks for sites less than 800m² or maintaining a minimum 800m² minimum lot size.
  - Scenario C, D and E delivered significantly less site cover than identified in the acceptable outcome (60% for townhouses) due to other design parameters, including driveway access, deep planting and private open space.
- **02 Building Height –** The building height in metres requirement should be reviewed – further market certainty is achieved with either storeys or metres. This is particularly relevant where greater floor to ceiling height is required for ground floor parking to enable on site servicing. It is recommended that metres be adopted as an acceptable outcome and a revised height in metres provided for 2, 3, 4, 5 and 6 storey buildings that accounts for at-grade parking.
- **03 Setbacks –** In Scenario C, D and E (2 storey townhouses on 700m² and 1200m² lot sizes), the rear setback was increased from 3 metres to 4 metres to meet the minimum dimension for deep planting areas. Consideration should be given to the minimum dimension for deep planting areas for smaller/constrained townhouse sites.
- **04 Communal Open Space –** The requirement for a minimum dimension of 5m (width) limits the ability for communal open space to be provided on larger sites with higher yield. If achieving a 5m COS is a key priority for the city, consideration could be given to reducing achievable apartment yield by reviewing certain requirements – i.e. increasing setbacks and reducing site cover, POS and deep planting requirements.
- **05 Landscaped Areas –** Requirements for private open space and driveways limit the ability for Scenario C (townhouses with 700m² lot size) to deliver the 20% landscaped area acceptable outcome. Consideration could be given to limiting driveway extent, implementing an acceptable outcome requirement that requires impervious/landscaped areas as part of driveways to soften the extent of development. Other considerations could include implementing acceptable outcomes specific for small lot sizes involving smaller setbacks, and lesser extent of deep planting and POS.
- **06 Streetscape Requirements –** Through the development of the townhouse scenarios, the option to provide two or three separate driveways in the one site was considered, as this is supported by the MDRZ Code. This approach was however not selected as it would deliver a low quality design outcome for the streetscape and broader setting of any townhouse development sites. In line with the recommendations for point 10, limitations on the number of driveways in an acceptable outcome should be considered to avoid sites with multiple driveways. This is also influenced by the requirements for private open space, for example if Scenario D located the private open space at the front of the dwellings, there would be an immediate reduction in the number of driveways/vehicle access points required. Ultimately this would result in an improved streetscape outcome.
- **07 Private Open Space –** The opportunity to provide private open space within the front setback, thereby addressing the street frontage and contributing positively to the broader amenity of the area, should be considered. The location of private open space should also consider site specific circumstances including solar aspect, building orientation and other technical matters e.g. air quality, acoustic amenity. It is acknowledged that the intent of locating private open space to the rear/side boundaries is to address potential issues of reduced passive surveillance of the street from ad-hoc additions to street frontage (such as fencing). However, this requirement results in other unintended and unacceptable impacts on other design elements (as described above).
- **08 Apartment Diversity –** Dictating requirements for a specific dwelling mix of either apartments or townhouses will lead to significant debate for Council. Ultimately the market can only support the uptake of certain residential products (i.e. 1, 2 or 3 bed dwellings) depending on broader economic influences and supply/demand. There are several options that Council could consider implementing a performance outcome that seeks apartments to provide a diversity of housing or require a flexible number of internal spaces/bedrooms that could be reconfigured over time. This could be encouraged through the Multiple Dwelling Design Guide. It is also noted that the requirements for apartment diversity also impact on feasibility, as well as influence requirements for parking. If parking is provided at grade, it also has the potential to limit the provision of landscaping, deep planting and private/communal amenity spaces.
- **09 Driveways –** The current draft code does not limit the number of driveways for each individual site. Consideration should be given to including an AO (AO23) to address this. This is a common approach in other LGAs. A notable example is provided within the Residential Uses Code (i.e. E8.1 to E8.3 of Table 9.3.2.3) of the Moreton Bay Regional Council Planning Scheme.
- **10 Screening and landscaping –** Screening and landscaping requirements for at grade car parking should be reviewed to provide clearer guidance. This is particularly relevant where at-grade car parking is located facing a frontage or boundary.



APPENDIX A – CRITIQUE OF MEDIUM DENSITY RESIDENTIAL ZONE CODE



1.1.1 Medium density residential zone code

1.1.1.1 Application

This code applies to development:

(1) within the medium density residential zone as identified on the zoning maps contained within Schedule 2 (mapping); and
(2) identified as requiring assessment against the medium density residential zone code by the tables of assessment in Part 5 (tables of assessment).

When using this code, reference should be made to section 5.3.2 and, where applicable, section 5.3.3, in Part 5.

1.1.1.2 Purpose

(1) The purpose of the medium density residential zone code is to provide for medium density living in areas that are close to public transport or centres, and characterised by a mix of dwelling types including dwelling houses on a range of lot sizes, dual occupancies and multiple dwellings.
(2) The purpose of the code will be achieved through the following overall outcomes:
   (a) the medium density residential zone consists predominantly of townhouses and apartments. Short term accommodation, retirement and residential care facilities may also be established;
   (b) housing provides a range of dwelling sizes;
   (c) non-residential uses which provide a community service function or a local service such as a café, may be established where they are small scale, primarily serve the needs of the immediate locality, do not significantly detract from residential amenity, do not compromise the role of any centre and are provided as part of a mixed use development with residential, retirement or tourist accommodation;
   (d) lot sizes for townhouses or apartments are not reduced below 800m², unless the resultant lots are consistent with the density and character of the surrounding established neighbourhood or where a townhouse development has been designed to facilitate freehold titling;
   (e) Home-based businesses are undertaken where they do not detract from the residential amenity of the area;
   (f) development is generally two to three storeys in height, unless otherwise intended in a particular precinct;
   (g) buildings are set back from property boundaries to maintain a consistent streetscape character, and protect the privacy and amenity of adjoining residences;
   (h) development achieves a well-designed, architecturally interesting built form through a mix of articulation of building elements, roof forms, screening, textures, materials and colours;
   (i) development incorporates architectural styles and elements that reduces the visual impact of the built form;
   (j) elements of the development visible from the street and public spaces makes a positive contribution to the streetscape and character of the locality;
   (k) development is consistent with the existing or future scale, character and streetscape of the locality and strengthens site features, such as views, heritage or significant trees
   (l) sites are of a sufficient size to accommodate well-designed multiple dwelling development and all required design elements (e.g. articulation of building elements, landscaping, deep planting and open space);
   (m) development retains or establishes significant trees in deep planting areas and avoids alteration to natural drainage lines; and
   (n) development creates a safe, comfortable and convenient pedestrian environment within and external to the site, and facilitates a high level of accessibility and permeability for pedestrians and cyclists.

Commented [JC1]: Option to add in an overall outcomes that deals with car parking provision. For example:

Development provides parking which is integrated into the site and building and does not negatively impact on the site or adjoining sites or the quality and amenity of the streetscape.

Commented [JC2]: Is it worth specifying that individual developments should provide a range of dwelling sizes, rather than just housing generally

Commented [JC3]: How does this sit against the 4 storey provision for apartments?

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Commented [JC4]: Question whether this overall outcome should require the development as a whole to contribute positively to the streetscape – otherwise are you saying that the components not visible from the street should have a lesser design quality?

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Commented [JC5]: Option for this to sit with overall outcome (d) as it relates to the lot sizes for multiple dwelling developments

(3) The purpose of the zone will also be achieved through the following additional overall outcomes for particular medium density residential precincts:

(a) Precinct MDR1: parkland living, Capalaba:

(i) buildings are orientated towards Capalaba Regional Park and encourage surveillance, access and views towards the park;
(ii) building height reinforces the role and vibrancy of Capalaba as a principal centre;
(iii) paths and landscape elements connect to the east-west pedestrian spine through Capalaba principal centre through to Capalaba Regional Park; and
(iv) development reinforces a low speed traffic environment within the precinct and extensive on-street car parking.

Figure 1.1.1.2.1—Precinct MDR1: parkland living, Capalaba

(b) Precinct MDR2: Mount Cotton Road, Capalaba:

(i) building height provides a transition in height between the principal centre and the surrounding residential environment, to minimise potential impacts of overshadowing and loss of privacy on adjoining sites.

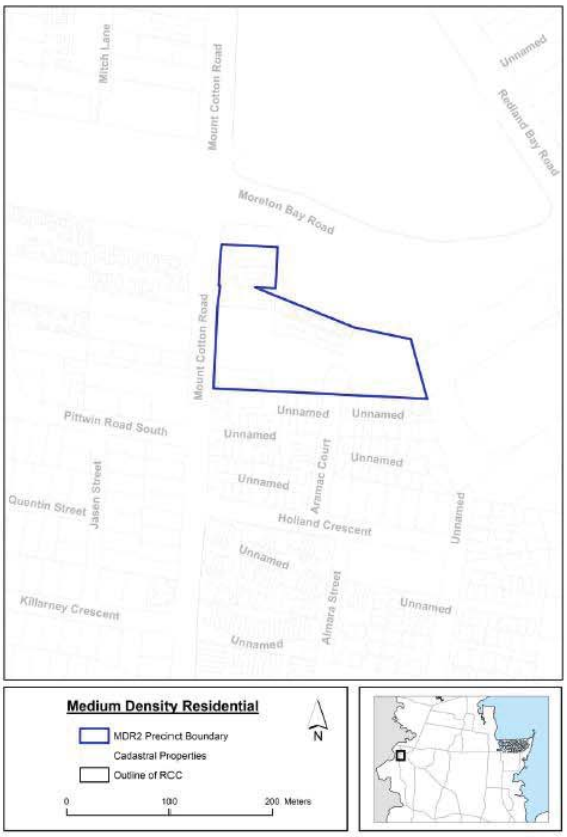

Figure 1.1.1.2.2—Precinct MDR2: Mount Cotton Road, Capalaba

(c) Precinct MDR3: Shore Street East, Cleveland:

(i) a slightly higher built form creates a focal point between Cleveland principal centre and Toondah Harbour; and

(ii) new development consolidates underutilised sites.

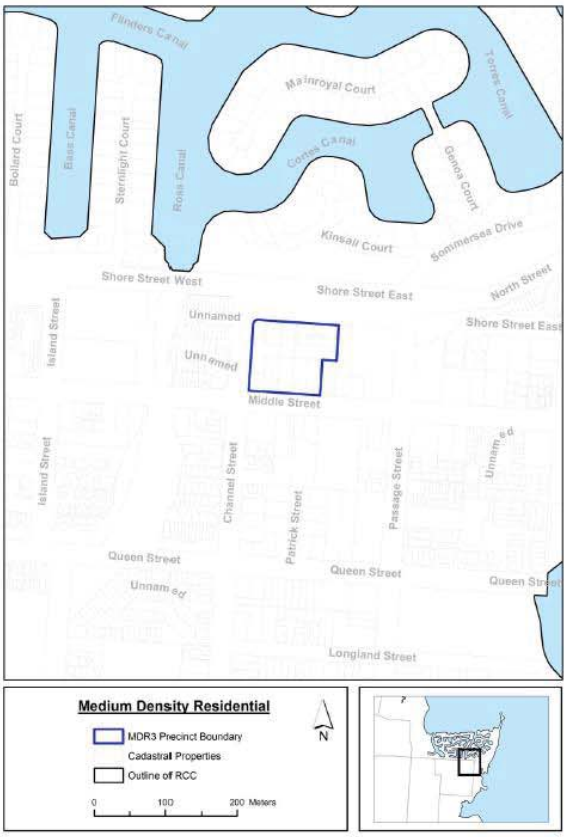

Figure 1.1.1.2.3—Precinct MDR3: Shore Street East, Cleveland

(d) Precinct MDR4: Cleveland:

(i) development assists in providing connections between Cleveland principal centre and the surrounding area;
(ii) building height reinforces the role and vibrancy of Cleveland as a principal centre and the connection between the centre and Toondah Harbour; and
(iii) new development consolidates underutilised sites.

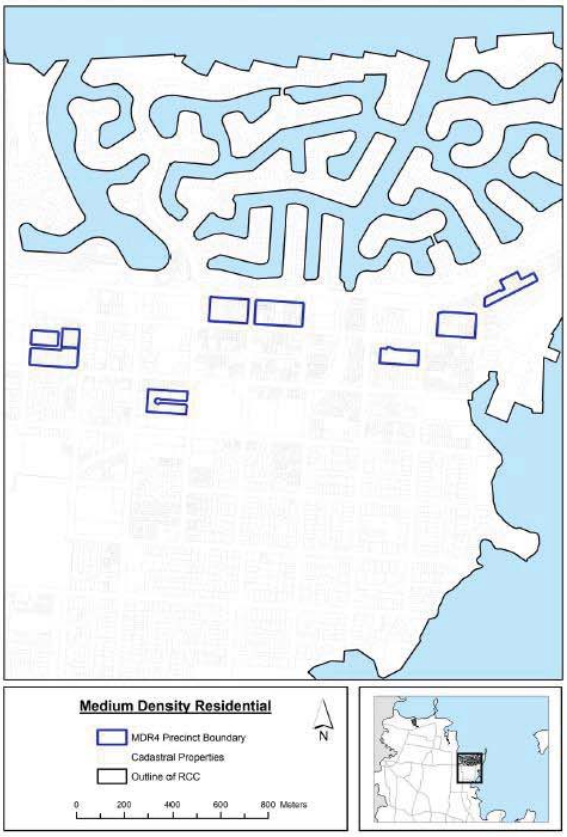

Figure 1.1.1.2.4—Precinct MDR4: Cleveland

(e) Precinct MDR5: Esplanade, Redland Bay:

(i) development provides for a slightly higher built form which optimises the amenity provided by the bay-side location.

Figure 1.1.1.2.5—Precinct MDR5: Esplanade, Redland Bay

(f) Precinct MDR6: South East Thornlands:

(i) urban development provides for a mix of affordable housing types;
(ii) transport networks are coordinated and interconnected to ensure a high level of accessibility for pedestrians, cyclists, public transport and private vehicles; and
(iii) interim development does not compromise or constrain the potential for well designed future urban communities.

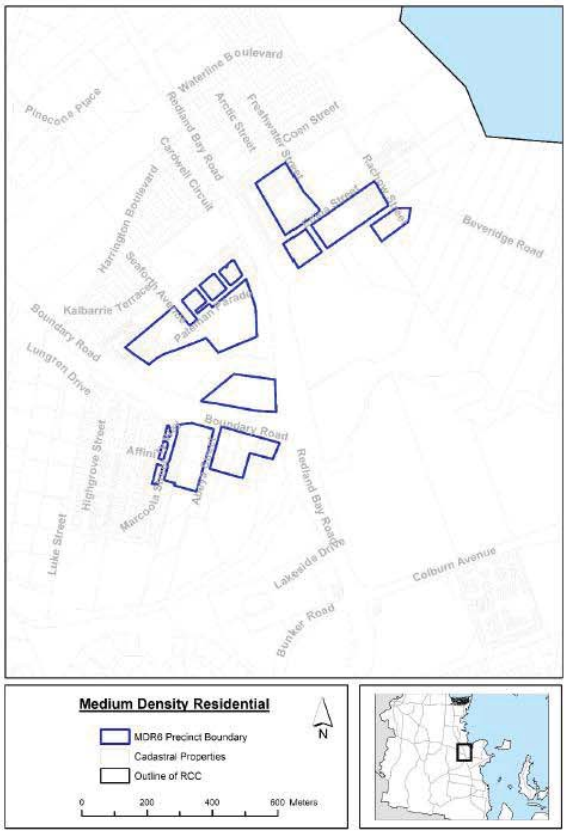

Figure 1.1.1.2.6—Precinct MDR6: South East Thornlands

(g) Precinct MDR7: Eprapah Creek, South East Thornlands:

(i) urban development provides for a mix of affordable housing types;

(ii) development along Eprapah Creek provides for a slightly higher built form which optimises the amenity provided by the creek-side open space;
(iii) transport networks are coordinated and interconnected to ensure a high level of accessibility for pedestrians, cyclists, public transport and private vehicles; and
(iv) interim development does not compromise or constrain the potential for well designed future urban communities.

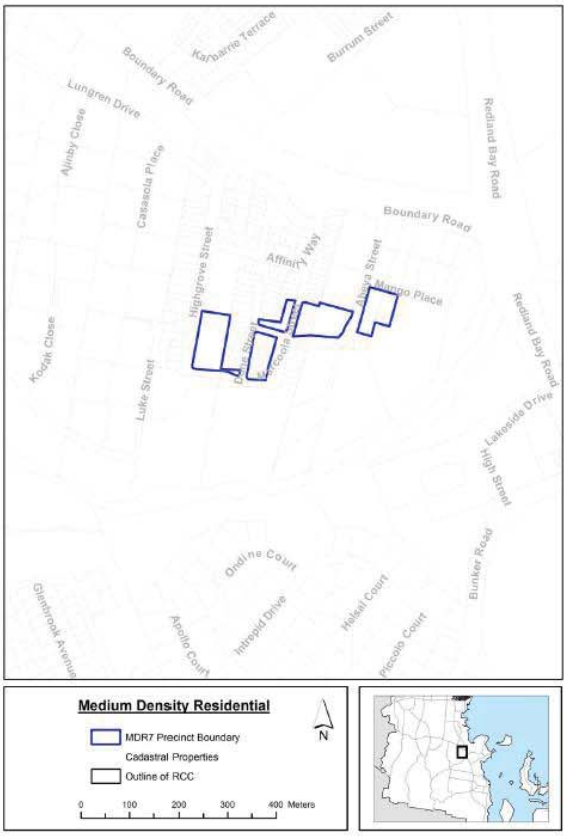

Figure 1.1.1.2.7—Precinct MDR7: Eprapah Creek, South East Thornlands

- Precinct MDR8: Kinross Road and Boundary Road and precinct MDR9: Kinross Road:

(i) urban development provides for a mix of housing types and achieves a minimum net residential density of 44 dwellings per hectare;
(ii) development provides for a high level of accessibility to nearby local centres and community facilities;
(iii) transport networks are coordinated and interconnected to ensure a high level of accessibility for pedestrians, cyclists, public transport and private vehicles;
(iv) development on land fronting Boundary Road and Panorama Drive is designed to:
  (A) rely on access from the internal street network with no access from Boundary Road and Panorama Drive; and
  (B) facilitate landscaping and acoustic treatment of Boundary Road and Panorama Drive;
(v) development maintains significant habitat linkages and assists in the safe movement of koalas;

Editor's note—Applicants should be aware that the provisions of the *Planning Regulation 2017*, Schedules 10 (part 10) and 11 also apply to development in this area.

(vi) development does not compromise or constrain the potential for well designed future urban communities;
(vii) building height in precinct MDR8 Kinross Road and Boundary Road is compatible with that of surrounding residences.

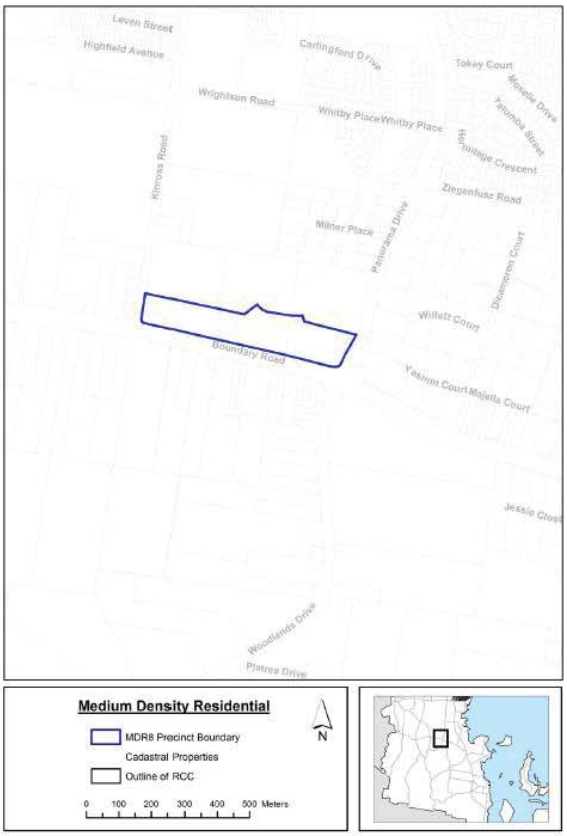

Figure 1.1.1.2.8—Precinct MDR8: Kinross Road and Boundary Road

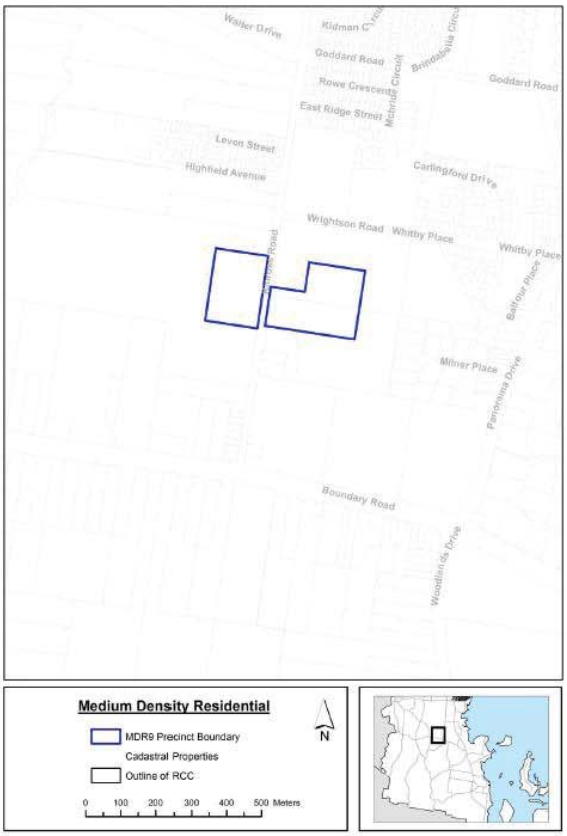

Figure 1.1.1.2.9—Precinct MDR9: Kinross Road

1.1.1.3 Medium density residential zone code – Specific benchmarks for assessment

Table 1.1.1.3.1—Benchmarks for assessable development

Performance outcomes	Acceptable outcomes
For development that is accepted subject to requirements and assessable development	
Dual occupancies	
PO1 To provide good residential design that promotes the efficient use of a lot, an acceptable amenity to residents, and to facilitate off street parking.	**AO1.1** A Dual occupancy complies with all of the Acceptable Solutions specified in the Queensland Development Code part MP1.3. Note — For the purpose of this AO, a reference to "duplex" in the Queensland Development Code MP1.3 is taken to be "Dual occupancy" as defined by this planning scheme. Note — References to the Queensland Development Code MP1.3 for the purposes of this AO are to be applied as if these provisions applied to a Dual occupancy. Note — The Queensland Development Code MP1.3 indicates that it is only applicable to Class 1 and associated Class 10 buildings. For the purpose of this AO, the class of building is irrelevant, as long as the development meets the definition of "dual occupancy" as defined by this planning scheme. Note — Other zone code provisions will prevail over this acceptable outcome to the extent of any inconsistency.
For assessable development Editor's note – Council has developed a Multiple Dwelling Design Guide to assist applicants in achieving high standard design outcomes for multiple dwellings. For developments involving multiple dwellings, it is recommended that this document is used as a reference document to support the assessment benchmarks in this planning scheme.	
Non residential uses	
PO2 Non-residential uses occur only where they: (1) are for a community service function or a local café; (2) are integrated with residential activities as part of a mixed use development; (3) do not unduly detract from residential amenity; (4) are small scale and primarily serve the immediate community; and (5) do not impact on the function of any nearby centre.	No acceptable outcome is nominated.
Short term accommodation	
PO3 Short term accommodation is located and designed to minimise conflicts with permanent residential development.	No acceptable outcome is nominated.
All residential development – communal and private open space	
PO4 Development involving an apartment with 10 or more dwellings or a townhouse with 20 or	**AO4.1** Communal open space is provided where development involves:

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Performance outcomes	Acceptable outcomes
more dwellings provides communal open space that: (1) is readily accessible, usable and safe; (2) provides flexible spaces and recreation facilities suitable for a range of activities; (3) is landscaped to provide shade creating a pleasant micro-climate and for visual relief to soften the impact of building and hardstand areas; (4) provides opportunity for causal social interaction; (5) is designed and located to reduce impacts on the amenity of residents of the development and neighbouring properties; (6) is co-located but separate from deep planting areas; and (7) reduce impervious areas to improve stormwater filtration.	(1) an apartment with 10 or more dwellings; (a) provides a minimum of 15% of the site area or 100m2 (whichever is greater) as communal open space, with a minimum of 10% or 75m2 (whichever is greater) located on ground level; and (b) has a minimum dimension of 5m; or (2) a townhouse with 20 or more dwellings (a) provides a minimum of 5% of the site area or a minimum area of 50m2 (whichever is greater) as communal open space; and (b) has a minimum dimension of 5m. Editor's note—part of the communal open space requirement for an apartment can be provided on rooftops or on podiums. Editor's note-Minimum communal open space area calculations do not include area required for deep planting.
	AO4.2 A communal open space area is designed to: (1) be centrally located to be readily accessible for residents via pedestrian pathways; (2) be co-located with deep planting areas where practicable; (3) be orientated north to ensure part of the area receives at least three hours of sun between 9am and 5pm on 21 June over the area; (4) be clearly separated from any private open space and deep planting areas of the site; (5) be well lit and subject to passive surveillance; (6) provide a range of recreational facilities including; (a) seating for individuals or groups; (b) barbeque areas; (c) play equipment or play areas; and (d) swimming pool, gyms, tennis court, common room or communal gardens; (7) provide a minimum of 15% landscaping, including a landscaped area with a minimum width of 1.5m where adjoining a neighbouring property; (8) ensure a minimum of 15% of the area is shaded by trees; (9) have a finished surface level with a gradient less than 5 percent; (10)hard and soft landscape treatments;

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Performance outcomes	Acceptable outcomes
	(11)be clear of all non-recreational structures, including clothes hoists, driveways, water tanks, car parking and garbage storage; and (12)can include indoor recreation facilities.
PO5 Development provides private open space that is: (1) useable in size and shape to meet the needs of a diversity of potential residents; (2) functional and easily accessible from living or common areas to promotes outdoor living as an extension of the dwelling; (3) clearly identified as private open space; and (4) provides a high level of privacy for residents and neighbours.	**AO5.1** For a ground floor dwelling, ground floor private open space is provided with: (1) a minimum of 16m² if a dwelling in a residential care facility; or (2) a minimum area of 25m² for all other dwellings; and (3) with a minimum dimension of 4m and clear of any utilities such as gas, clothes drying facilities, water tanks or air-conditioning units.
	AO5.2 For dwellings above ground level, private balconies are provided with a minimum area of: (1) 10m² if a dwelling in a residential care facility; or **(2)** For all other dwellings: (a) 10 m² for a 1 bedroom unit; and (b) 16m² for a two or more bedroom unit; (3) with a minimum dimension of 3m and clear of any air conditioning unit or drying space
	AO5.3 Where clothes drying areas are provided on private balconies they are screened from public view and do not take up more than 10% of the balcony area.
	AO5.4 For a townhouse fronting a street, private open space is located at the rear or side of a townhouse; behind the front building line and outside of the front boundary setback.
Apartment diversity	
PO6 Development for a multiple dwelling provides a mix of dwelling sizes in terms of the number of bedrooms having regard to: (1) current housing needs and projected future demographic trends; (2) demand for social and affordable housing; and (3) needs of different cultural and socioeconomic groups.	**AO6** Development: (1) for an apartment involving 5 or more dwellings ensures that 40% of dwellings have a different number of bedrooms than other dwellings; (2) for a townhouse involving 5 or more dwellings ensures that 20% of dwellings have a different number of bedrooms than other dwellings.

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Commented [JC6]: Consider ability to locate private open space in front setback area, also take into account site specific circumstances e.g. solar aspect, streetscape amenity, air quality, acoustics. Ability to locate private open space in the front of the dwelling assists with reducing the dominance of driveways, parking etc

Commented [KK7]: Dictating this to the market will cause significant debate for Council. Ultimately the market can only support uptake of certain product depending on where we are in the cycle and market demand. The alternative might be to promote design that can be more easily reconfigured over time.

Performance outcomes	Acceptable outcomes
Built form	
PO7 Development for an apartment occurs on a site that has an area and street frontage width that is sufficient to: (1) accommodate the scale and form of well-designed and articulated apartment building; (2) allow buildings to be oriented to the street; (3) provide for communal and private open spaces (4) provide safe and convenient vehicle access to the site; (5) accommodate on-site parking for residents and visitors and vehicle movements for waste and delivery vehicles; (6) deliver substantial landscaping including deep planting areas to retain or establish significant trees; (7) provide adequate building setbacks to adjoining properties to maintain residential amenity and privacy.	**AO6.1** Development for an apartment has a minimum site area and frontage width: (1) 3 storey or less in height has a site area of 800m² and a street frontage width of 15m; or (2) 4 storey or greater in building height has a site area 1,000m² and a street frontage width of 20m. **(the above site area and frontage widths are subject to change based on scenario testing)**
PO8 Development provides for interaction with the street and public spaces by: (1) providing dwellings or habitable rooms at ground level for apartments; and (2) ensuring ground level dwellings have direct and safe pedestrian access to the street or public space where possible.	No acceptable solution nominated.
PO9 Site cover: (1) is consistent with the intended medium density character of the area and immediate streetscape (2) mitigates the bulk and scale of development; (3) provides solar access to living and open space areas; (4) provides for privacy between dwelling units for residents and neighbouring properties; (5) supports residential amenity for residents and neighbouring properties (6) provides usable communal and private open space for residents; and (7) allows for substantial landscaping, including deep planting areas to retain establish significant trees	**AO8.1** Site cover that does not exceed: (1) 60% for a townhouse; or (2) 50% for an apartment three storey or less in height; or; (3) 45% otherwise.

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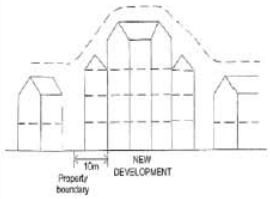
Commented [JC8]: Consider requirement to be for habitable rooms only? If dwellings are provided (and noting the or provision) this could include non-habitable spaces at the front the site, therefore failing to contribute to the streetscape.

Commented [KK10]: This percentage gets very tight and respective Councils that have adopted a similar metric have struggled to implement it successfully and/or discouraged redevelopment from occurring.

Commented [JC9]: Consider including 'natural light, sunlight and breeze'

Performance outcomes	Acceptable outcomes
PO10 Building height: (1) in precinct MDR1 parkland living, Capalaba, is mid rise and provides a transition up to higher buildings within the principal centre; (2) in precinct MDR2 Mount Cotton Road Capalaba, is mid-rise but steps down from the principal centre to low rise residential areas south of Redland Bay Road; (3) in precinct MDR3 Shore Street East, Cleveland, is mid-rise but creates a focal point between Cleveland principal centre and Toondah Harbour; (4) in precinct MDR4 Cleveland, is mid rise and reinforces the connection between Cleveland principal centre and Toondah Harbour; (5) in precinct MDR7 Eprapah Creek, South East Thornlands and precinct MDR5 Esplanade, Redland Bay, is mid-rise, accommodating a slightly higher built form than surrounding medium density residential zoned land to optimise the amenity of their locations; (6) in precinct MDR8 Kinross Road and Boundary Road, is low rise and compatible with the height of surrounding residences; and (7) is up to three storeys in all other areas.	**A10.1** Buildings comply with the number of storeys and building height in Table 6.2.3.3.2.
PO11 Where building height over 13m is intended, buildings step down in height and scale to be of a similar size to intended building height on adjoining residential zoned land.	**AO11.1** Buildings: (1) within 10m of the common boundary have a building height no more than 13m; and (2) within 20m of the common boundary have a building height no more than 6m greater than the intended building height on the adjoining site. Figure 6.2.3.3.1 illustrates. 

Performance outcomes	Acceptable outcomes
	Figure 1.1.1.3.1—Height between adjoining development
PO12 Development provides a front boundary setback (other than basements) that: (1) create an attractive, consistent and cohesive streetscape; (2) results in development not being visually dominant or overbearing with respect to the streetscape; (3) assists in achieving visual privacy to ground floor dwellings from the street; (4) supports the location of balconies for casual surveillance of the street and articulation of the building facade; (5) provides for landscaping to soften and screen the built form, including deep planting areas to retain or establish significant vegetation; and (6) where tandem car parking spaces are proposed in front of townhouse garages, they are contained wholly within the property boundary. Editor's note – The provision of tandem car parking spaces is not supported in all locations. Refer to Table 9.3.5.3.2 – Minimum on-site vehicle parking requirements in the Transport, servicing, access and parking code for further information.	**AO12.1** The front boundary setback is a minimum of: (1) 3m to building wall and 5.5m for garage doors for a townhouse; or (2) 4m to balcony, eaves, awning or the like and 6m to building wall for an apartment equal to or less than 3 storey in height; or (3) 6m to balcony, eaves, awning or the like and 8m to building wall for an apartment equal to or greater than 4 storey in height.
PO13 Development provides side and rear boundary setbacks that: (1) minimise the impacts of development on the amenity and privacy of existing and future adjoining residents; (2) does not prejudice the intended future development of adjoining sites; (3) contributes to the pattern of the streetscape consistent with the intended neighbourhood character; (4) supports the separation of buildings to provide visual and acoustic privacy; (5) maintains sufficient levels of natural light and air circulation for residents of the development and adjoining sites; (6) ensures daylight penetrates all side of the proposed building; (7) maintain communal and private open space areas of a size and dimension to be useable and functional; (8) supports the introduction of landscaping to compliment building massing, screen buildings and support the privacy of existing and future adjoining residents; and	**AO13.1** The side boundary setback: (1) a built to boundary wall does not exceed 4.5m in height and 9m in length along any one boundary for a townhouse; or (2) otherwise for a townhouse, buildings are setback a minimum of: (a) 1.5m for a building wall up to 4.5m high; (b) 2m for a building wall up to 7.5m high; (c) 2.5m plus 0.5m for every 3m or part thereof by which the building exceeds 7.5m; or (3) for an apartment 3 storey or less in height, a minimum of 3m; or (4) for an apartment 4 storey or greater in height, a minimum of 4m. **AO13.2** The rear boundary setback is: (1) for a townhouse a minimum of 3m; or (2) for an apartment 2 storeys or less in height, a minimum of: 4.5m to balcony and 6m to building wall; or

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Commented [JC11]: This is a large front setback – has consideration been given to a 6m setback, as is proposed for a 3 storey apartment building?

Commented [KK12R11]: 8m to the front creates a very wide and empty feeling streetscape.

Commented [JC13]: Has Council considered a staggered approach (similar to the townhouse approach above) for apartments?

Performance outcomes	Acceptable outcomes
(9) provide for deep planting areas to retain and protect significant native trees and vegetation or establish large subtropical shade trees.	(3) for an apartment building 3 storeys in height, a minimum of 6m to the building wall; or (4) for an apartment 4 storeys or greater in height, a minimum of 8m.
PO14 Basements are: (1) located outside of deep planting areas; (2) designed to provide natural ventilation for basement car parking that is integrated into the building façade and landscape design; and (3) designed to have a strong relationship between the street and the proposed building and ground level open space.	No acceptable outcome is nominated.
PO15 Buildings are designed to: (1) contribute to an attractive streetscape and intended character of the local area; (2) be orientated to the street; (3) incorporate balconies that address street frontages and public spaces; (4) provide modulation and articulation in the building façade horizontal and vertical profiles; (5) provide projections and recesses in the facade which reflect changes of internal functions of buildings, including circulation; (6) include variation in building materials, contrasting colours, textures and finishes that emphasises architectural features; (7) use similar proportioned roof forms, doors, windows and balconies to compliment the local character; (8) break up the appearance of large buildings through roof form, articulation, projections and recesses that reflect the existing streetscape scale; and (9) articulate building entrances and openings.	No acceptable outcome is nominated.
PO16 Development ensures that: (1) corner sites address both street frontages; and (2) key corners are given prominence by changes in articulation, materials or colour and roof expression.	No acceptable outcome is nominated.
PO17 Development for services and related structures: (1) are accessible for maintenance;	**AO17** Services and related structures (such as electricity transformers, fire hydrant and

Deleted: f

Commented [JC14]: This is a significant rear setback – has Council considered a 6m rear setback as is proposed for the 3 storey apartment buildings?

Performance outcomes	Acceptable outcomes
(2) are integrated to blend into the overall development design; and (3) are designed and orientated to not visually dominate the street frontage.	booster assemblies.) where located in the front boundary setback: (1) comprise no more than 5m or 10% of the street frontage (whichever is lesser) (2) are orientated towards internal driveways or footpaths (3) are located, screened with similar materials to the building or landscaped to not be visually obtrusive when viewed from the street
PO18 A main pedestrian entrance is provided for an apartment that connects the street with the apartment building that: (1) is separated from the vehicle entry (2) provides safe and convenient access to the building for pedestrians; (3) includes an entry treatment that provides, waiting space off the footpath, lighting, mailboxes, building signage and numbering.	No acceptable outcome is nominated.
PO19 Apartment buildings provide for changes in building depth, length and articulated form to: (1) be visually interesting; (2) visually reduce the scale and bulk of the building; and (3) support dual orientation dwellings to provide for natural cross ventilation.	**AO19.1** The maximum length of an apartment building wall in any direction is 30m with a change in the building line every 15m of plus or minus 1.5m for a length not less than 5m. Editor's note-full building separation provides a minimum of 6m.
PO20 Design elements promote a subtropical and climate responsive design character through: (1) the use of deep balconies, decks and eaves; (2) orientating habitable room windows, private open space (balconies and terraces) to the north where possible; (3) maximising dwellings with a northern aspect; (4) maximising dual orientation of habitable rooms to provide for natural cross ventilation; (5) integration of buildings with landscape and deep planting areas to create a pleasant micro-climate; (6) screening habitable rooms from the western sun using building and landscape elements.	No acceptable outcome is nominated Editor's note—Applicants should have regard to Subtropical Design in South East Queensland A Handbook for Planners Developers and Decision Makers (2010 Centre for Subtropical Design QUT).
PO21	**AO21.1**

Commented [JC15]: Is there no requirement for articulation in townhouse building walls?

Performance outcomes	Acceptable outcomes
The design of roof form, rooftops and building caps of apartments: (1) provides an interesting and attractive roofscape that enhances the architectural distinction of the building and makes a positive contribution to the local character; (2) is articulated to reduce the bulk and scale of a building when viewed from the street (3) incorporates variety in design; (4) maximises solar access during winter and provides shade in summer; (5) incorporates a variety in design; and (6) effectively integrates or screens service structures, plant and equipment and provides for the future inclusion of additional plant and equipment. **(an illustration of an acceptable roof form would be useful)**	Roof form, rooftops and building caps are designed to: (1) include interesting forms created through pitches, gables, skillions or other features; (2) be articulated to break down the roof and building bulk and scale; (3) provide opportunity for stormwater collection, solar energy and communal open space; (4) be angled to the north and east to maximise solar access in winter; and (5) incorporate hoods and overhangs to shade walls and windows from the summer sun.
	AO21.2 Rooftop service structures, plant and equipment is: (1) integrated into the building design to be an architectural feature; or (2) effectively screened; and (3) designed to enable future inclusion of plant and equipment such as telecommunications facilities in an unobtrusive manner
	AO21.3 Where rooftops are used for communal open space: (1) service structures, plant and equipment are visually and acoustically screened; and (2) landscaping is provided to provide shade and visual relief.
PO22 Parking facilities are contained within the building footprint to: (1) not dominate the streetscape or the building form when viewed from the street; and (2) mitigate amenity impacts on adjoining residents	**AO22.1** Parking facilities (including visitor car parking) are located within the building footprint: (1) in a basement level; or (2) at ground level where landscaped or screened from view from the street, other public spaces and adjoining properties
PO23 Driveways are: (1) designed to integrate into the overall building design and define the public and private space; (2) incorporate high quality pavement materials, textures and colours to contribute to an attractive and interesting streetscape; (3) located on secondary/rear frontages, where available, for an apartment; and	No acceptable outcome is nominated.

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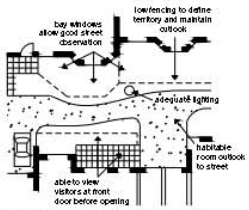
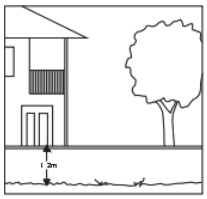
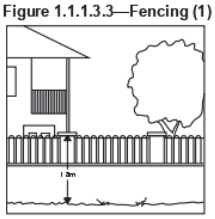
Commented [JC16]: Consider also requiring legibility and safety for pedestrians for ground level parking

Performance outcomes	Acceptable outcomes
(4) visually shorten the length of driveway that can be seen from the street by placement of buildings, staggered road alignment, planting and landscape treatments and varied materials.	
PO24 Development provides front fences or walls along street frontages or public spaces that create an attractive streetscape by: (1) incorporating a mixture of building materials that complement the design of buildings (2) provide for visual interest and soften the visual impact where significant in length (3) highlight entrance to the property	**AO24.1** Fences or walls along a street front or public space are designed to incorporate a mixture of building materials that complement the design of the building. **AO24.2** Where a fence or wall along street frontages or public spaces exceeds 10m in length, indentations, material variation or landscaping (including planter boxes) are incorporated.
PO25 Development is designed to create an attractive streetscape and discourage crime and anti-social behaviour by: (1) maximising opportunities for casual surveillance of the street, public places, communal open space (where provided) pedestrian and cycle paths, including the primary pedestrian entrance (where provided) and car parking areas; (2) ensuring spaces are well lit; (3) minimising potential concealment and entrapment opportunities; (4) providing direct movements with clear unobscured sight lines; and (5) fences and walls along a street frontage or public space use visually permeable materials and treatments	**AO25.1** Balconies, windows and building openings overlook streets and other public spaces. Figure 6.2.3.3.2 illustrates.  **Figure 1.1.1.33.2—Overlooking** **AO17.2** Fences or walls along a street frontage or public space have a maximum height of: (1) 1.2m where solid; or (2) 1.8m where that portion of the fence above 1.2m high is at least 50% transparent.

Performance outcomes	Acceptable outcomes
	Figures 6.2.3.3.3 and 6.2.3.3.4 illustrate.  **Figure 1.1.1.3.3—Fencing (1)**  **Figure 1.1.1.3.4—Fencing (2)**
Amenity	
PO26 Privacy between dwelling units on the site and adjoining sites is achieved by effective building design and the location of windows and outdoor open spaces to prevent overlooking into habitable rooms or private open space areas or through the use of screening devices. Where screening devices are used, they are integrated with the building design.	**AO26.1** Where habitable room windows are directly adjacent to habitable rooms of adjoining dwellings and are within a distance of 9m and within an angle of 45 degrees, privacy is protected by: (1) sill heights being a minimum of 1.5m above floor level; or (2) providing fixed translucent screens, such as frosted or textured glazing, for any part of the window below 1.5m above floor level; or (3) providing fixed external screens.
	AO26.2 Outlook from windows, balconies, stairs, landings, terraces and decks and other private areas, is screened where a direct view is available into the private open space of another dwelling. Screening is achieved by: (1) fixed translucent screens, such as frosted or textured glazing, for any part of the window below 1.5m above floor level; or (2) fixed external screens; or (3) landscape planting that will achieve a minimum of 2m in height at maturity.
	AO26.3

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Performance outcomes	Acceptable outcomes
	Where incorporating screening devices, they are: (1) solid translucent screens or perforated panels or trellises that have a maximum of 25% openings, with a maximum opening dimension of 50mm and that are permanently fixed and durable; and (2) offset a minimum of 300mm from the wall of the building.
PO27 Development provides side and rear fencing that protects the privacy and amenity of adjoining properties.	**AO27** Side and rear boundary fences are a minimum of 1.8m in height.
PO28 Development is designed to facilitate the retention and establishment of significant trees and street trees that: (1) compliment and soften the scale and bulk of the built form; (2) support an attractive streetscape; (3) enhance the amenity of residents; and (4) provide natural shade to improve the micro-climate.	No acceptable outcome is provided.
PO29 On-site landscaping is provided to: (1) contribute to an attractive streetscape (2) enhance the appearance of the development; (3) complement any native vegetation within the site; (4) provide for the retention or establishment of significant trees in deep planting areas (5) provide privacy between dwellings of the development and adjoining properties; and (6) screen unsightly components.	**AO29.1** A minimum of 20% of the site is planted or grassed landscaping (rather than hardstand). **AO29.2** A minimum 2m wide landscaped area is provided along the length of any public road frontage. **AO29.3** A minimum 1.5m wide landscaped area is provided along the side boundary to screen any driveway. **AO29.4** Areas for deep planting are provided. Editor's note-the deep planting area requirement is part of the overall minimum 20% landscaping for a site rather than in addition.
PO30 Deep planting areas are provided that: (1) are located to retain or establish significant trees to soften the built form (2) are co-located with communal open space, street trees or deep planting areas on adjoining properties (3) are accessible to provide informal recreation spaces for residents (4) are of sufficient size and dimension to support the retention or establishment of significant trees that at maturity	**AO30.1** Deep planting areas are located: (1) within boundary setbacks to soften the built form from the street and adjoining properties (2) to retain significant trees; (3) to co-locate with communal open space, street trees or deep planting areas on adjoining properties **AO30.2** Deep planting areas are: (1) a minimum of 10% of the site

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Commented [JC17]: Is this to be separate to the communal open space requirements?

Commented [KK18R17]: How it relates to accommodation car parking and servicing should be further tested.

Commented [JC19]: Does this need to be included as part of AO29 if AO30 deals with deep planting?

Commented [JC20]: Do you intend for deep planting in a communal open space are to be able to contribute towards the 10% requirement?

Performance outcomes	Acceptable outcomes
compliment the scale and height of the built form (5) are open to the sky with access to light and rainfall (6) are maintained exclusively for landscaping, with no underground development or infrastructure (7) reduce urban heat island effects by improving the micro-climate (8) provide water quality and quantity benefits from the natural filtration of rainfall into the ground.	(2) a minimum unobstructed dimension of 4m in any direction (3) completely open to the sky Editor's note-the deep planting area requirement for a minimum of 10% of a site is part of the overall minimum 20% landscaping for a site rather than in addition.
	AO30.3 Deep planting areas are exclusively for landscaping and do not contain (1) driveways, manoeuvring or hardstand areas and pedestrian paths (2) surface structure and infrastructure such as water tanks or utilities (3) sub-surface structures or infrastructure such as basement car parking and water supply or wastewater infrastructure.
PO31 Development minimises impacts on surrounding residential amenity and provides a high level of on-site amenity for occupants, having regard to noise, odour, vibration, air or light emissions.	No acceptable outcome is nominated.
PO32 Siting and design achieves a high level of amenity for occupants by minimising impacts from noise generating areas, such as streets, driveways, car parking areas, service areas, private and communal open space areas and mechanical equipment.	No acceptable outcome is nominated.
PO33 Development minimises the extent of shadows on useable private open space or public spaces and provides adequate sunlight to habitable rooms on the site and adjoining.	**AO33.1** Solar access to habitable rooms and private open space of dwellings: (1) is not less than 3 hours between 9am and 3pm on June 21; or (2) where existing overshadowing by building and fences is greater than this, sunlight is not further reduced by 20%.
PO34 Waste and recycling container storage areas are located within the building footprint to: (1) provide an accessible location for residents and waste collection; (2) not be visible from street and other public spaces; (3) mitigate adverse amenity impacts in terms of odour, noise and visual impacts on adjoining properties.	**AO34.1** Waste and recycling container storage areas are: (1) located within the building footprint; (2) co-located in car parking areas, in a basement or at ground level; (3) separated from open space areas on-site and adjoining properties; (4) screened or enclosed; (5) integrated into the building design using similar material and finishes; and (6) well ventilated.

Redland City Plan 2018 – version 4 Part 6 Zones—25

Performance outcomes	Acceptable outcomes
PO35 Development is designed to respond to the site characteristics and character of the surrounding neighbourhood. Editor's note-this performance outcome can be met through submission of a design concept that demonstrates the design process and includes: (1) site and neighbourhood analysis; (2) building design criteria/principles informed by an opportunities and constraints analysis; and (3) outline the design response to the site and neighbourhood.	No acceptable outcome is nominated.
PO36 The site layout responds to topography, natural values and development constraints, such that: (1) impacts on ecological corridors and native vegetation are minimised and mitigated; and (2) alteration to natural topography and drainage lines is minimised.	No acceptable outcome is nominated. Editor's note—Applicants will also need to have regard to any relevant overlays applicable to the development site.
Reconfiguration	
PO37 Reconfiguration creates lots that are of a size that can accommodate medium density residential development in a form that meets the intentions of this zone. Lots less than 800m^2 are not created.	**AO37.1** Reconfiguration achieves a minimum lot size of 800m^2.
PO38 Reconfiguration of a townhouse to establish freehold lots only occurs where: (1) the townhouse development is designed to be freehold titled by: (a) ensuring the townhouse development remains in compliance with the planning and building standards and development approvals following reconfiguration; (b) all created lots have access in compliance with the City Plan access requirements for a dwelling house; (c) the townhouse remains a self-contained residence following reconfiguration; dependant activities of the townhouse do not become separated by freehold titling; (2) the lots are created following construction of the townhouses; (3) equitable sharing and ongoing maintenance of any shared facilities or infrastructure is established.	No acceptable outcome is nominated.

Redland City Plan 2018 – version 4 Part 6 Zones—26

Performance outcomes	Acceptable outcomes
Editor's note- material change of use and reconfiguration applications should be submitted together to allow concurrent assessment.	
Precinct MDR6: South East Thornlands, and precinct MDR7: Eprapah Creek, South East Thornlands	
PO39 Housing is designed and located to maximise outlook across adjoining areas of open space.	No acceptable outcome identified.
PO40 Development facilitates the establishment of a safe, permeable, legible and functional movement network that is in accordance with Figures 6.2.3.3.5 road movement network and 6.2.3.3.6 pedestrian, cycle and public transport network.	**AO40.1** Roads, intersections, paths and public transport stops and associated treatments are established in accordance with Figures 6.2.3.3.5 road movement network and 6.2.3.3.6 pedestrian, cycle and public transport network.
PO41 Where development involves or adjoins nominated boulevard roads, the road design: (1) creates a grand avenue character, being 50m wide for the central boulevard and 25m wide for the southern boulevard; (2) incorporates very wide landscaped medians that are of a sufficient width to support fauna movement; and (3) wide shoulders and verges which accommodate separated pedestrian and cyclist paths and dense landscaping.	**AO41.1** Total width of the boulevard is: (1) central boulevard - 50m; and (2) southern boulevard - 25m.
PO42 Development is set back from Boundary Road by a distance sufficient to accommodate substantial landscaping to retain a heavily vegetated character.	**AO42.1** In addition to any widening of the road reserve required by the Queensland Government, development provides a 15m wide strip either side of Boundary Road which is densely vegetated by trees and shrubs.
PO43 Development adjoining Cleveland Redland Bay Road and Boundary Road attenuates noise to a level that achieves a high level of residential amenity. Any acoustic walls: (1) are screened by landscaping; and (2) incorporate breaks to allow for pedestrian and cyclist permeability.	No acceptable outcome is nominated.
PO44 Development facilitates: (1) a logical pattern of development; (2) efficient use of land and infrastructure; (3) a mix of affordable housing types; (4) access to community infrastructure and public transport services at an early stage of development; and	No acceptable outcome is nominated.

Redland City Plan 2018 – version 4 Part 6 Zones—27

Performance outcomes	Acceptable outcomes
(5) land for community uses and public services, including open space education, health, social and emergency services where appropriate.	
PO45 Development provides for separation and buffering from nearby activities, including primary production, poultry farms and other rural industries, such that amenity and reverse amenity impacts are avoided.	No acceptable outcome is nominated.
Precinct MDR8: Kinross Road and Boundary Road, and Precinct MDR9: Kinross Road	
PO46 Development does not create any additional vehicular access points to Boundary Road or Panorama Drive. New lots are provided with access from internal roads.	**AO46.1** No new access points from lots are provided to Boundary Road or Panorama Drive.
PO47 Development does not create any additional vehicular access points to Kinross Road for a distance of 835m from the intersection of Kinross Road and Boundary Road. New lots are provided with access from internal roads.	**AO47.1** No new access points from lots are provided to Kinross Road for a distance of 835m from the intersection of Kinross Road and Boundary Road.
PO48 Development facilitates the establishment of a safe, permeable, legible and functional movement network that is generally in accordance with Figures 6.2.3.3.7 road movement network and 6.2.3.3.8 pedestrian, cycle, public transport and parks network.	**AO48.1** Roads, road closures, intersections, paths, fauna crossings, public transport stops and associated treatments are established in accordance with Figures 6.2.3.3.7 road movement network and 6.2.3.3.8 pedestrian, cycle, public transport and parks network.
PO49 Development adjoining Boundary Road or Panorama Drive is set back by a sufficient distance to provide for acoustic treatments and substantial landscaping.	**AO49.1** A 10m wide setback is provided along Boundary Road. No acceptable outcome is nominated for Panorama Drive.
PO50 Development adjoining Boundary Road or Panorama Drive attenuates noise to a level that achieves a high level of residential amenity. Any acoustic walls: (1) are screened by landscaping; and (2) incorporate breaks to allow for pedestrian and cyclist permeability.	No acceptable outcome is nominated.
PO51 Development adjoining Boundary Road or Panorama Drive provides landscaping to create a heavily vegetated, high visual quality environment.	No acceptable outcome is nominated.

Performance outcomes	Acceptable outcomes
PO52 Kinross Road extending from the intersection at Boundary Road to Goddard Road is designed to operate safely and efficiently and create a grand avenue character.	**AO52.1** Kinross Road is designed as a boulevard style trunk collector having a reserve width of 32m, including: (1) a 6.5m landscaped verge on both sides of the road incorporating native canopy shade trees, utility services and shared pedestrian/bicycle concrete pathways; (2) a 1.5m on-road cycle lane on both sides of the road using differently textured materials; (3) one vehicular lane and breakdown lane, minimum dimension of 5m on both sides of the road; and (4) a 6m central median incorporating native canopy trees and water sensitive urban design features.
PO53 The nominated trunk collector / boulevard providing access to Panorama Drive is designed to operate safely and efficiently and create a grand avenue character.	**AO53.1** The road is designed as a boulevard style trunk collector, having: (1) a minimum road width of 20m; (2) no direct vehicular access from new uses and lots adjoining the trunk collector; and (3) a left in, right in and left out only intersection to Panorama Drive.
PO54 Where development involves nominated esplanade roads treatments adjoining open space, the road design: (1) creates a low speed environment; (2) facilitates safe, shared use for vehicles, pedestrians and cyclists; (3) incorporates grassed swales instead of kerb and channel adjacent to the open space; and (4) minimises disturbance to vegetation.	No acceptable outcome is nominated.
PO55 New streets provide sufficient width for on street parking on both sides.	**AO55.1** Streets have a minimum width of 18m.
PO56 Development facilitates: (1) a logical pattern of development; (1) minimal requirement for earthworks and retaining walls; (2) efficient use of land and infrastructure; (3) a mix of affordable housing types; (4) net residential densities are not less than 44 dwellings per hectare; (5) access to community infrastructure and public transport services at an early stage of development; and	No acceptable outcome is nominated.

Performance outcomes	Acceptable outcomes
(6) land for community uses and public services, including open space, education, health, social and emergency services where appropriate.	
PO57 Development provides for separation and buffering from nearby activities, including primary production, poultry farms and other rural industries, such that amenity and reverse amenity impacts are avoided.	No acceptable outcome is nominated.
PO58 Development is designed to provide safe koala movement opportunities and minimise impediments to a koala traversing the landscape.	No acceptable outcome is nominated.
PO59 To the extent practical, development minimises the amount of clearing and fragmentation of koala habitat.	No acceptable outcome is nominated.

Table 1.1.1.3.2—Maximum building height

Area		Maximum Building Height (Storey)	Maximum Building Height (m)
MDR1 MDR3	Parkland living, Capalaba Shore Street East, Cleveland	6 storey	22m
MDR2 MDR4 MDR5	Mount Cotton Road, Capalaba Cleveland Esplanade, Redland Bay	5 storey	19m
MDR7	Eprapah Creek, South East Thornlands	4 storey	16m
MDR 6 MDR9	South East Thornlands Kinross Road	3 storey	13m
Elsewhere in the zone		3 storey	13m
Elsewhere in the zone where an apartment is 2 storey in height.		n/a	11m
MDR8	Kinross and Boundary Road	2 storey	8.5m

Commented [KK21]: Is the desire here to control overall height or floor to floor height. Adding metres and storeys becomes restrictive and complex particularly on sloping sites.

Commented [JC22]: This height limit doesn't align with AO6.1

Consequential City Plan Amendments

9.3.4 Reconfiguring a lot code

9.3.4.3 Reconfiguring a lot code – Specific benchmarks for assessment

SC1.1 Table 9.3.4.3.1 – Benchmarks for assessable development

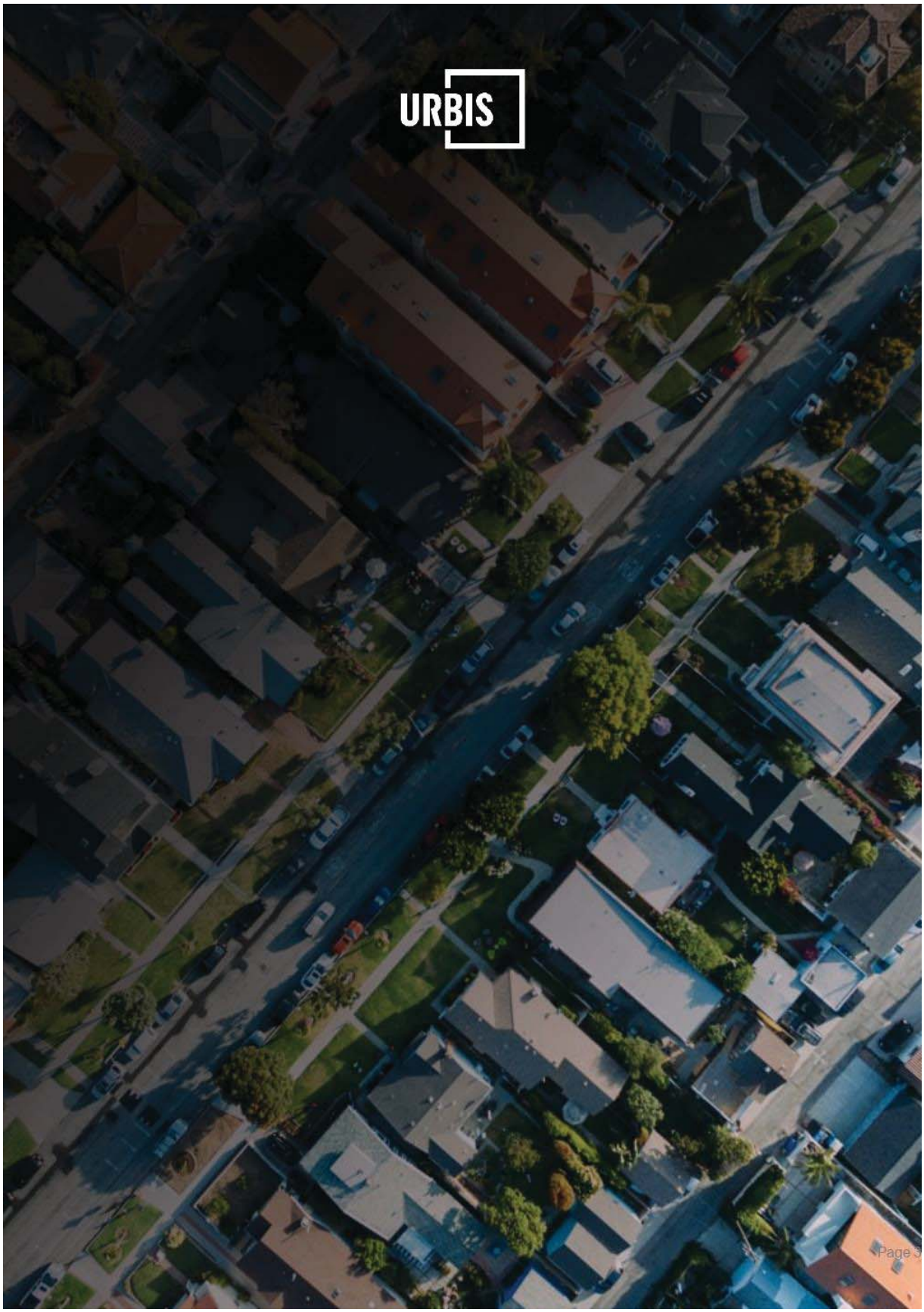
Reconfiguration for a townhouse	
PO Reconfiguration of a townhouse to establish freehold lots only occurs where: (4) the townhouse development is designed to be freehold titled by: (d) ensuring the townhouse development remains in compliance with the planning and building standards and development approvals following reconfiguration; (e) all created lots have access in compliance with the City Plan access requirements for a dwelling house; (f) the townhouse remains a self-contained residence following reconfiguration; dependant activities of the townhouse do not become separated by freehold titling; (5) the lots are created following construction of the townhouses; (6) equitable sharing and ongoing maintenance of any shared facilities or infrastructure is established. Editor's note- material change of use and reconfiguration applications should be submitted together to allow concurrent assessment.	No acceptable outcome is nominated.

SC1.2 Administrative definitions

Table SC1.2.1 Additional administrative terms and their definition

Column 1 Administrative term	Column 2 Definition
Articulation	The treatment of a building form or façade that creates or contributes to visual character and an active frontage. Articulation may include: - vertical and horizontal detail and/or projections - variations in colours, materials, patterns and textures - architectural elements such as openings, entry statements, directional signage, exposure of fittings, distinction between levels of a building, awnings, planters, balconies and stepping of built form
Apartment (Multiple Dwelling)	The use of a premises for three or more dwelling units in a building that: - is two or more storeys in height - has a common foyer entrance - has communal facilities including outdoor amenity spaces, car parking and waste storage areas
Building envelope	The three-dimensional extent of where a building and associated structure may be built on a site after consideration of assessment criteria for building height, front, side and rear boundary set backs, any height transitions and other assessment criteria.
Building footprint	The two-dimensional extent of built development, including balconies, covered private outdoor living areas and enclosed spaces but excluding the part of a building or structure that is: - an eave or a roof; or - a sunhood or the like attached to the wall of a building or structure to provide shade or shelter to the wall.
Townhouse (Multiple Dwelling)	The use of a premises for three or more dwelling units that: - does not have a dwelling above or below it - has individual dwelling unit entrances - has individual car parking and waste storage areas

Commented [JC23]: What about indoor amenity space?



Redland CITY COUNCIL

PLANNING SCHEME POLICY - 7

MULTIPLE DWELLING DESIGN GUIDE

MAYOR'S FOREWARD

On Redlands Coast we cherish our character, identify and lifestyle – all shaped by our enviable location, adjoining Moreton Bay and regionally significant areas of high environmental and visual quality.

As our city continues to grow and more people call Redlands Coast home, achieving good design will be critical to maintaining the quality of life and amenity currently enjoyed by our residents and visitors alike.

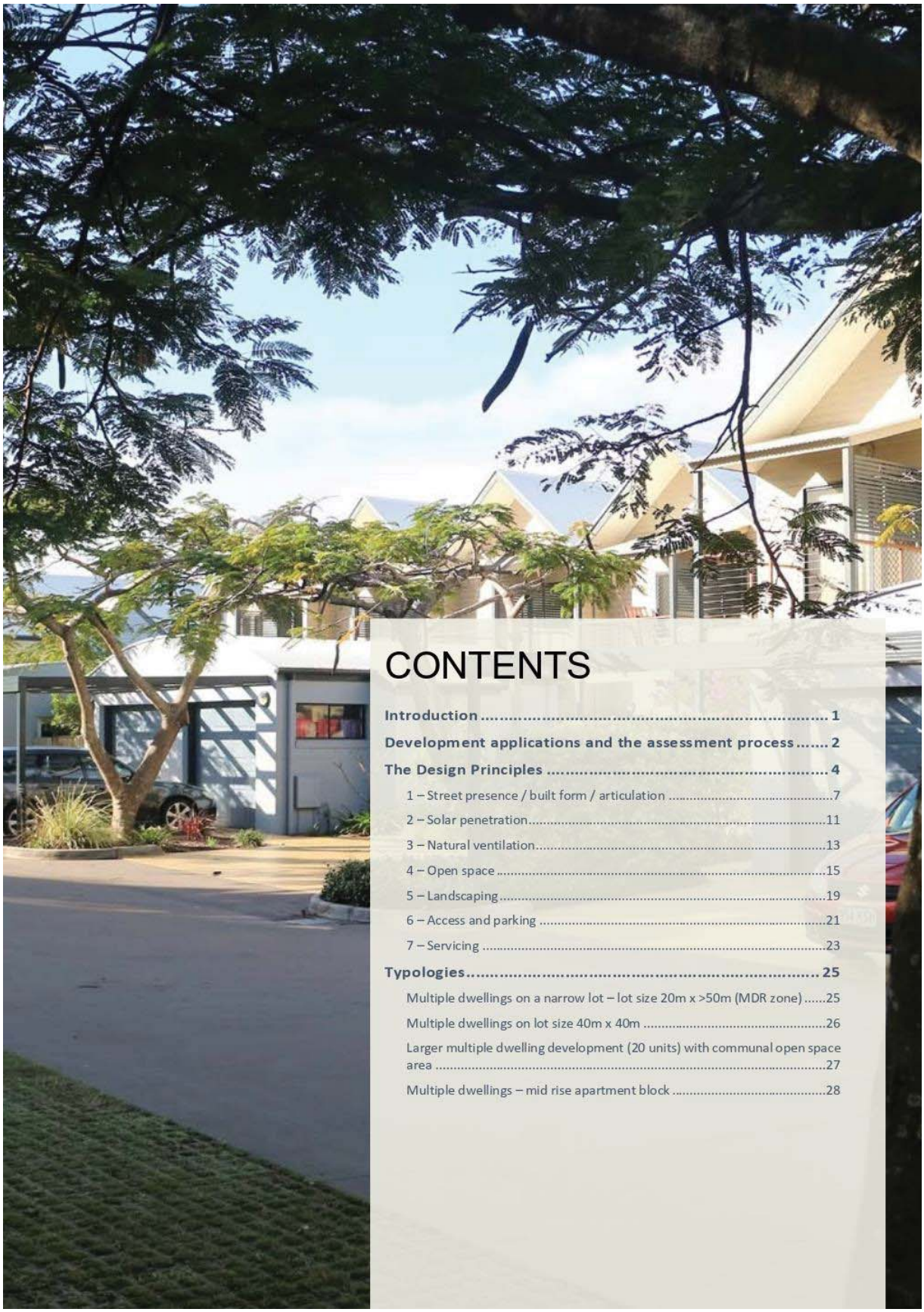
Our Redland City Plan provides an important blueprint for managing how our city will grow, managing expected population growth while at the same time responding to demographic changes and lifestyle trends.

These changes will require greater diversity in our housing options and an increasingly important role for multiple dwellings strategically located throughout the city close to our centres and public transport.

The Multiple Dwelling Design Guide will complement the City Plan by identifying critical design elements which respond to our sub-tropical climate and reflect the identity of Redlands Coast.

We also hope the design guide will promote dialogue between designers, planners, developers and the broader community as we plan for the naturally wonderful growth of our city.

Cr Karen Williams
Redland City Mayor



CONTENTS

INTRODUCTION

The aim of the Multiple Dwelling Design Guide (MDDG) is to achieve high standard design outcomes for multiple dwellings within Redland City.

The Redland City Plan (RCP) encourages housing diversity and affordability for residents though a choice of housing product and location. This guide intends to help to provide a vibrant, safe and attractive built environment in a landscape setting to address the housing needs of changing demographics into the future. This guide provides design advice across a range of housing products.

The guide:

- Explains the relationship to the statutory approval process;
- Provides residential design guidance consisting of a set of principles that are aligned with the Redland City Plan, supplemented by images, diagrams and explanatory text; and
- Outlines information that will ensure a well-made proposal when preparing and submitting a development application for approval.

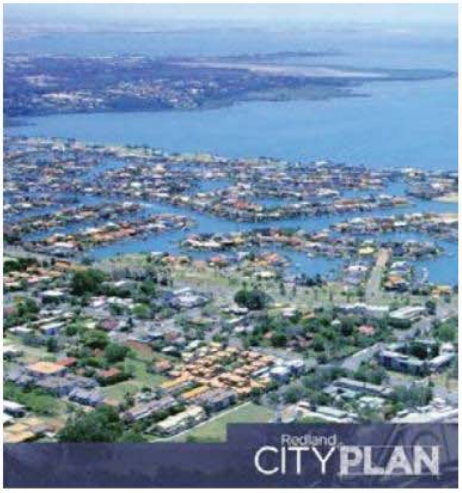
Relationship with the planning scheme

This policy will be used as a reference document to guide good design outcomes to support the criteria for assessable development contained within the Redland City Plan (RCP). The RCP Strategic Framework identifies the various characteristics which make up a series of residential and separate centres zones which provide opportunities for development of various lot sizes, a range of densities and resulting diversity in housing design. The policy principally applies to development of multiple dwellings in the Low medium density residential (LMDR), Medium density residential (MDR) and Tourist accommodation Zones.

Definitions

The terms used in the policy are defined in schedule 3, columns 1 and 2 of the *Planning Regulation 2017*.

For clarification a Multiple Dwelling is defined as a residential use of premises involving 3 or more dwellings, whether attached or detached, for separate households.



DEVELOPMENT APPLICATIONS AND THE ASSESSMENT PROCESS

PRE-LODGEMENT PROCEDURES

RCC has a pre-lodgement procedure. This guide provides a resource for pre-lodgement discussions. The guide advocates meeting early in the design and planning process to focus on how to achieve the best design outcome for each development site. This is the key to an efficient assessment process.

It is recommended that consideration is given to the provision of information such as a Concept Design Proposal for the pre-lodgement meeting.

Design is a process, not just an end result.

A Concept Design Proposal is intended to explain the analysis, the design evolution and principles on which a development proposal is based.

This should be a combination of diagrams, illustrations, photographs and information. This is usually information which will have been collated by the designer through the design process and therefore should not be onerous.

An initial Concept Design Proposal can be submitted for a pre-lodgement meeting. This would enable the assessment manager to provide an informed initial response to the main issues raised by the proposal.

WHAT IS A CONCEPT DESIGN PROPOSAL?

The Planning Act sets out the mandatory supporting information for Development Applications.

This MDDG recommends that consideration is given to the provision of additional information such as a Concept Design Proposal principally based on diagrams, illustrations and photographs.

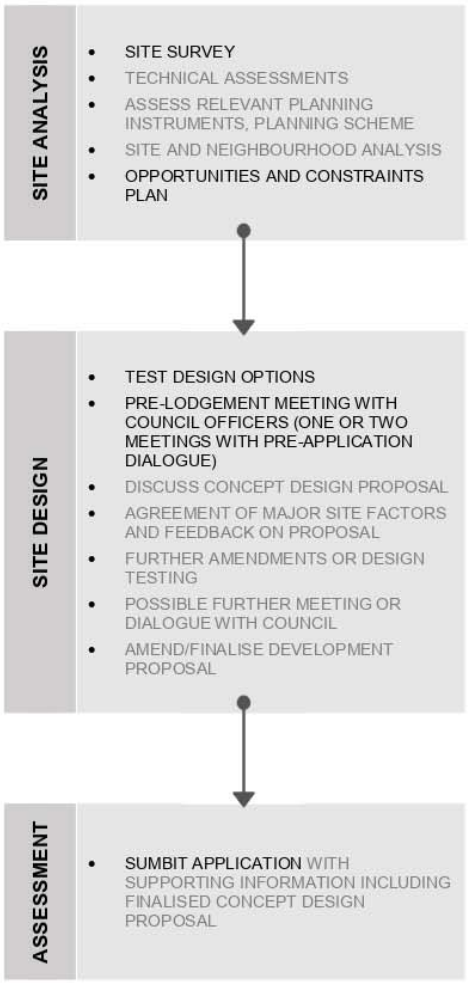
It is recommended that a Concept Design Proposal consists of three parts:

1. A site and neighbourhood analysis.
2. Opportunities and constraints analysis and initial design parameters –
   A summary of the analysis, highlighting the main elements that will inform the initial design parameters.
3. Design testing and response –
   Presentation of the development proposal, outlining how it responds to the site and surrounding area, how various design concepts have been tested, and giving an explanation of the design rationale in the context of the RCP.

HOW DOES A CONCEPT DESIGN PROPOSAL ADD VALUE TO MY APPLICATION AND DEVELOPMENT?

A Concept Design Proposal is a non-mandatory document but a well prepared one may reduce the need for officers to ask for further information during the application process as it can clearly present the rationale for why design decisions have been made. It can also help to avoid costly amendments to the proposal at later stages and facilitate an expedited assessment process. Furthermore, it can be used as a useful tool for engagement and explanation to residents who may otherwise raise concerns and submissions.

DESIGN PROCESS



THE DESIGN PRINCIPLES

SUBTROPICAL DESIGN

CONTEXT

South East Queensland is Australia's only sub- tropical metropolitan region. Residents of Redland City enjoy the character and lifestyle provided by its bayside location, parklands and urban and rural settings. As a result, the multiple dwellings within the Redlands should have climatically responsive designs, creating attractive streetscapes within safe and liveable environments.

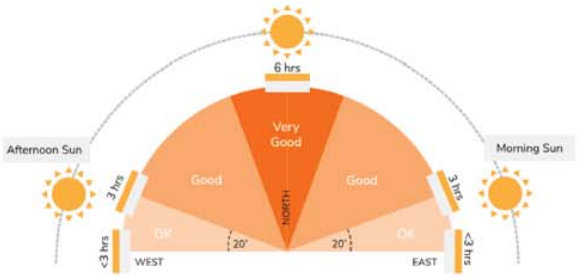
Development in Redlands takes full advantage of the subtropical climate and prevailing coastal breezes through creative and responsive design and orientation. Good sub-tropical design practices and solutions can minimise energy use and environmental impacts.

In the RCP subtropical and climatically responsive design character is described as the use of deep verandahs, decks, and eaves and the integration of buildings within landscape planting.

Trees are a valuable urban asset and a key component of the landscape setting within Redlands, contributing to the visual amenity plus providing environmental benefits. These need to be planned and managed alongside other urban infrastructure.

Materials commonly used in vernacular styles are corrugated metal sheeting and timber weatherboards. Many more contemporary designs and residential building forms have incorporated timber and lightweight materials which complement traditional materials.

OUR CLIMATE



The hours of sunlight that can be expected in mid winter are directly related to the orientation of the façade. This diagram shows the optimal orientation for habitable rooms and balconies.

THE TRADITIONAL CHARACTER OF THE REDLANDS

The Design Principles have evolved to guide a contemporary response to the local climate, and promote traditional built form characteristicsin the Redlands as displayed in the examples on this page.

Typical traditional characteristics of Redlands streetscape and residential design are:

- Mature street trees
- Buildings orientated to the street
- Dwellings with direct pedestrian access to the street
- Lightweight materials
- Climate responsive design
- Indoor/Outdoor living
- Pitched roof form
- Modulation of facades
- Articulation of entrances and openings.

● Addresses both street frontages ● Multiple roof pitches and varying heights ● Projections and recesses in façade ● Outdoor living – wrap around covered balcony

● First floor projection ● Operable windows maximise natural ventilation and prevailing bay breezes ● Chamfer board wall cladding

● Direct pedestrian access to the street ● Pitched roof with articulated entrance ● Parking under house or behind building frontage ● House set back from road frontage with landscaping/trees contributing to streetscape

● Bull nose roof on verandah ● Timber picket fence ● Light with materials, timber frame and corrugated iron ● Articulated entrance with timber arbour ● Landscape strip along frontage

FORM AND SCALE

Good design achieves a scale, bulk and height appropriate to the existing or desired future character of the street and surrounding buildings.

An appropriate built form for a site should have regard to building alignments, proportions, building type and articulation.

BUILDING ENVELOPES

A building envelope is a three dimensional volume that defines the outermost part of a site that the building can occupy.

Building envelopes set the appropriate scale of future development in terms of bulk and height relative to the streetscape, public and private open spaces, and block sizes in a particular location.

Built form provisions are set out in the RCP. Each of the residential zone codes in the Planning Scheme sets out the related Performance Outcomes and Acceptable Outcomes particularly relating to:

- site cover
- building height
- building setbacks.

In addition, the context and characteristics of each site will influence the building envelope.

The Planning Scheme Polices within the City Plan provide additional information and guidance on local planning matters, including technical standards for Infrastructure Works (PSP2). This includes guidance on Landscaping and Waste Management.

The design guide therefore provides supplementary advice to those City Plan code requirements and Planning Scheme Policies.

THE 7 DESIGN PRINCIPLES

The 7 design principles set out in this Design Guide contain the elements, in particular climatic responsive designs and the creation of attractive streetscapes and liveable and safe environments, which contribute to the Redlands' identity.

The design principles are directly related to Performance Outcomes in the relevant zones in the RCP.

These principles are applicable to all forms of multiple dwellings. Examples are provided for a range of residential lot sizes/configurations and a variety of built forms.

The Design Principles relate to:

1. Street Presence/Built Form/Articulation
2. Solar Penetration
3. Natural Ventilation
4. Open Space
5. Landscaping
6. Access and Parking
7. Servicing.

1 – STREET PRESENCE / BUILT FORM / ARTICULATION

INTRODUCTION

Streetscapes are defined by a combination of public elements (carriageways, kerbs and footpaths) and private elements (street setbacks, fences and building facade). These elements should work together to create attractive streets and public spaces.

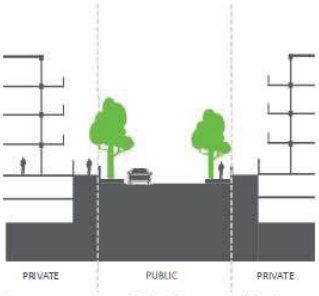
The interaction of the private and public spaces adjoining a building at ground level is critical to delivering successful streetscapes.

Good building façades provide visual interest along the street while respecting, complementing and adding to the character of the local area.

The roof is an important element in the overall composition and design of a building. Good roof design adds to the positive character of an area as an important part of the skyline, while providing for solar power and screened plant/equipment.

DESIGN CONSIDERATIONS

- Provide good interaction with streets and public spaces by locating habitable rooms at ground floor level. Upper levels contain terraces and balconies to support passive surveillance.
- Allow for casual surveillance of main pedestrian entrances and communal open space without compromising privacy of dwellings.
- Break up the appearance of large buildings by incorporating design elements such as a varied roof form, projections and recesses that reflect the existing streetscape rhythm and scale.
- Articulate elements of buildings to complement the character of the street by using similarly proportioned roof forms, doors, windows or verandahs.
- Make entrances visible and obvious from the street or public thoroughfare.
- Give prominence to key corners through a change in articulation, materials or colour, roof expression or changes in height.
- Develop a colour and materials palette to ensure the look and feel of elements such as letter boxes, fences, balustrades, screens and pergolas integrate with the overall appearance of the building.
- Use a palette of textures, materials, detail and colour that are proportional and arranged in patterns.
- Consider public art or treatments to exterior blank walls.
- Avoid lengths of unarticulated blank walls and monotonous building materials and colour.



Streetscapes are defined by a combination of public elements (carriageways, kerbs, verges and footpaths) and private elements (street setbacks, fences and building facades).

A mixed use building that creates a street presence, with an open aspect which invites access to the commercial floor whilst the residential units have a layered articulation with a palette of materials.

Units address the street with direct pedestrian access which balances openness with privacy.

01 STREET LIFE

For townhouse and low rise multiple dwellings, entrances and gardens should be oriented towards streets and public spaces, preferably with direct pedestrian access.

Balconies should face onto and overlook streets and public spaces. Balconies, and appropriate fence height and transparency, allow passive surveillance of the street and a safer neighbourhood.

The repetition of a simple design can often create a rhythm to the streetscape; however, variation of materials, colours and articulation of external elements can avoid monotony and contribute to the architectural vibrancy of a locality.

Pedestrian and vehicular entrances should be separate. Vehicular access, particularly for servicing, and garages should not dominate the streetscape. Higher density housing forms should ideally be developed with vehicle access to the rear where possible, or at least screened from the street to achieve high quality streetscapes.

Buildings address the street. Entrances at both ground floor and above are clearly visible.

This apartment block contributes to the streetscape with projecting balconies and also provides direct pedestrian access for each of the ground floor units.

02 CORNERS COUNT

Careful attention to the design of key corners can make a significant contribution to the characterof area. The colour and design can create a distinct façade for both front and side elevations on a key corner.

The continuity of the simple materials and colour palette, together with the design of townhouses can flow around the corner.

The use of bold design features adds prominence to the corner.

Key corners may extend to street edges, with taller, more vertical facade treatments.

The continuity of the simple materials and colour palette, together with the design of the townhouse flows around the corner.

03 FRONT DOORS AND OPENINGS

Pedestrian entries should be positively reinforced, integrated and transparent. Front entries of buildings should be expressed as feature elements of the building and be obvious without the need for signage. Entrances should have a high degree of passive surveillance and definition.

Front doors addressing the street.

04 FAÇADE DETAILS

Building articulation such as balconies and variation in depth of window reveals provide visual interest to the façade.

Visual interest can be enhanced with a variety of balustrading expressions with solid, glazed, angled, or curved treatments.

Contrasting materials and colours on facades create visual interest, a vertical emphasis and visually reduce the bulk of tallerbuildings

Balconies can still add outdoor living space and visual feathering at key corners, with a textured and articulated façade to a west facing elevation.

05 CASUAL SURVEILLANCE

The orientation of living areas and active frontages towards streets and publicplaces increases the level of casual surveillance. This requires a balance between building and landscape design in order to provide adequate levels of privacy while ensuring casual surveillance of public spaces.

Building articulation, casual surveillance and direct entry to the street, all contribute to the streetscape.

Pedestrian entrance with good visibility and definition.

06 ROOFS

Larger buildings should have a distinct roof that:

- breaks down the scale of the building
- relates to the street
- maximises solar access during winter and provides shade during summer.

Articulated roofs throughout the design.

07 FENCING AND WALLS

Front fences and walls along street frontages should use visually permeable materials and treatments.

Where fencing is used, ensure a mixture of building materials should be used which complement the design of the buildings. Vegetation screening and planter boxes can also be incorporated into the design to soften the visual impacts of large fence lines.

Pitched roof form and articulation breaks down the scale of an apartment building.

Railings with landscaping provide transparency to the street; the raised aspect provides an amount of privacy.

Fencing materials allow for casual surveillance whilst also maintaining privacy for residents.

2 – SOLAR PENETRATION

INTRODUCTION

Solar and daylight access reduces reliance on artificial lighting and heating, as well as improving energy efficiency and residential amenity. The aim is to maximise solar access and natural light to habitable rooms, primary windows and private open space.

In South East Queensland, sun entry is desirable from mid-April to mid-October. A moveable shade device might, for example, be used on north-facing openings to exclude sun entry from mid-October to mid-April.

Good solar penetration into a building can reduce the need for artificial lighting. Good orientation and exposure to natural light through the use of glass and windows optimises light while minimising heat load.

The use of light wells, atria and skylights to allow the penetration of natural light to common areas of buildings is important in creating attractive and welcoming spaces, especially where access to natural daylight is restricted or difficult to achieve for privacy or other reasons.

DESIGN CONSIDERATIONS

- Maximise northern aspect dwellings.
- Orientate all habitable room windows, private secluded open space and balconies and courtyards to the north whenever possible.
- Locate living areas to the north and service areas to the south and west where possible.
- Minimise the number of single aspect south facing apartments.
- Consider shallow apartment layouts, two-storey and mezzanine level apartments, which maximise daylight penetration.
- Design common corridors and lift lobbies with natural light.
- Use appropriate building setbacks and separation distances that ensure daylight penetrates all sides of a building.
- Design generous floor to ceiling heights, along with permeable façades that allow natural light to penetrate further into buildings.

Common corridors and stairwell designed to be naturally lit.

North facing balconies and living areas maximise natural light.

01 ORIENTATION

The hours of sunlight that can be expected in mid-winter are directly related to the orientation of the facade. The diagram above, under the sub-tropical design section, shows the optimal orientation for habitable rooms and balconies.

Lot and block layout design should facilitate good housing orientation, optimising solar access to inner courtyards during cooler months and the shading potential during the summer months.

Variation in vertical and horizontal screening.

02 WINDOWS AND ROOFS

Solar access to apartments can be maximised by angling roofs to the north and east. Hoods and overhangs shade walls and windows from the summer sun.

Dwellings with east facing aspects can also benefit from angled roofs, overhanging eaves and screens.

03 LOUVRES AND SCREENS

Screens and louvres are effective elements to assist in sun protection, adjustable screens allow for solar penetration in winter months and block sun during summer months.

Vertical blinds and window hoods are effective for sun management and add aesthetic interest and depth to the facade.

Variation in building depth, hoods, projections and screening provides solar access and effective shading.

This apartment block has a north eastern aspect. The artistic screening provides a distinct identity and gives vertical emphasis to break up the long façade.

3 – NATURAL VENTILATION

INTRODUCTION

Natural ventilation responds to the local climate and reduces the need for mechanical ventilation and air conditioning - increasing energy efficiency, environmental performance and ongoing savings on household energy bills.

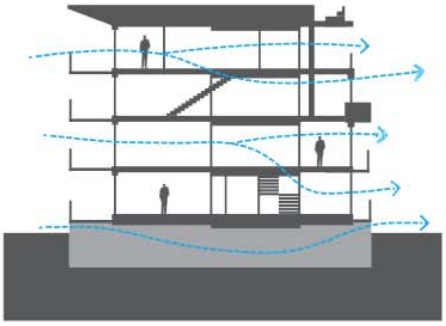
The subtropical climate encourages structures which can be adjusted to suit the weather.

Incorporating operable elements into the building design and layout, such as windows, doors and movable façades and walls, provides occupants greater control over the internal environment while allowing interaction with life and activity on the street.

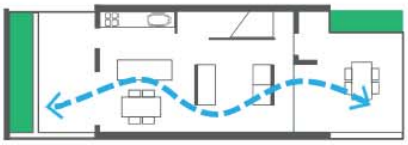
The constant movement of fresh air through buildings and spaces increases indoor health while saving on capital and ongoing costs for mechanically ventilated spaces.

DESIGN CONSTRUCTION

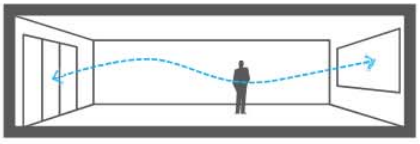
- Habitable rooms with dual orientation are encouraged, to facilitate good cross-ventilation.
- Consider shallow apartment layouts, two storey and mezzanine level apartments.
- Minimise the number of single aspect south facing apartments.
- Design common corridors and lift lobbies with natural light.



Habitable rooms with dual orientation are encouraged to facilitate good cross ventilation.



Cross ventilation in a dwelling.



Higher density apartment blocks may have a narrow floor plan to maximise north facing apartments and cross ventilation.

01 CROSS VENTILATION

Habitable rooms with dual orientation are encouraged to facilitate good cross-ventilation. For multiple dwellings, such as apartment blocks, a narrow floor plan can maximise north facing apartments and allow cross ventilation. Dual aspect apartments, with doors and windows that can be opened, maximise natural ventilation.

Dual aspects apartments with doors and windows that can be opened maximise natural ventilation opportunities. Common lift areas have natural light.

02 WINDOWS AND ROOFS

Operable windows and openings in façades, oriented towards cooling breezes providing cross-ventilation, allow the passage of daylight and air while reducing unwanted heat transfer.

The placement of these needs to be considered in the context of building setbacks, privacy and adjoining structures.

Shallow apartment block with narrow floor plan maximises cross ventilation.

03 LOUVRES AND SCREENS

Screens and louvres help layer façades, providing variety and detail. These elements also allow the flow of breezes through buildings. Larger operable elements such as moveable screens, doors and windows operate to control light, air and privacy and allow seamless transition between indoor and outdoor spaces.

Elevated eaves creates shading and captures cooling breeze plus breeze filtered through screens at entrance and circulation points between the dwelling units.

4 – OPEN SPACE

INTRODUCTION

Private open spaces are outdoor spaces, including gardens, courtyards, terraces and balconies. Because of the important indoor-outdoor connections in a sub-tropical climate, the design, orientation and usability of these spaces are critical. Versatile outdoor living space in multi-residential buildings is vital in a sub-tropical climate, as found in South-East Queensland.

Communal open space allows for casual social interaction for larger multiple dwelling developments. It provides opportunities for internal recreation, landscape and visual relief, and for deep planting to help create pleasant micro climates within large development sites. Communal space also provides opportunities to retain larger trees on development sites.

DESIGN CONSIDERATIONS

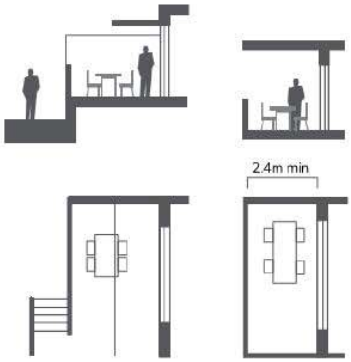
- All dwelling units which have access at ground level should have ground floor private terraces/garden areas.
- Orientation of private open spaces and balconies should predominately be north or east, in order to improve access to warmth and light during the cooler months.
- Primary open space and balconies should be oriented with the longer side facing outwards, or be open to the sky to optimise daylight access into adjacent rooms.
- Noisy locations may necessitate different solutions such as enclosed *wintergardens*, balconies with movable walls, bay windows or Juliet balconies.
- Communal open space should be positioned in an accessible location - which can be on roof tops, on podiums or at ground, with passive surveillance. Important design considerations include safety, amenity and durability.

01 PRIVATE SPACE AND BALCONIES

Maximum privacy of internal spaces and outdoor areas is highly desirable. Direct overlooking and overshadowing, particularly in the case of two storey buildings, of neighbouring buildings and their private outdoor spaces can be minimised by considering building layout and location, design of windows and balconies, screening devices and landscaping.

Appropriate building and landscape measures such as sensitive window location and avoidance of verandahs on adjoining dwellings facing each other, use of privacy screens, and shade devices and screen planting should be utilised to improve visual privacy.

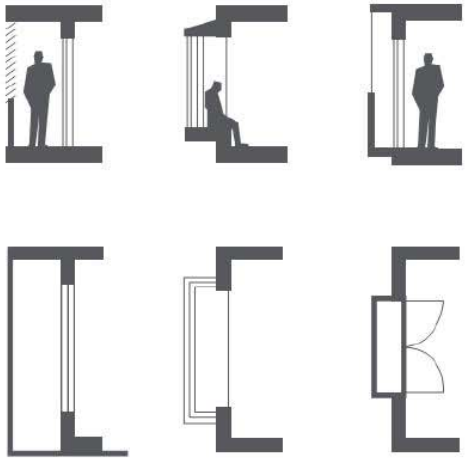
These units benefit from two balconies. The depth of each balcony is sized to suit its function.



At ground floor, private terraces may be appropriate. The depth of balconies should allow for table and seating to be accommodated.

To achieve privacy the following should be considered:

- Staggering windows to avoid direct outlook to neighbours' private open space, bedrooms and living rooms.
- Avoiding decks and balconies of adjoining properties facing each other across side boundaries. If they do overlook, privacy measures such as sliding panels, louvres or battening should be added.
- In dwellings two storeys and above, having sill heights of at least 1.5 metres above floor level or fixed translucent glazing in any part of the window below 1.5 metres.



Noisy locations may necessitate different solutions such as enclosed wintergardens, balconies with openable walls, bay windows or Juliet balconies.

Balconies are essential to all multi-storey residential development. As a key expression of the built form, they serve a public function as part of the visual expression of a building. They provide opportunities to articulate the façade, helping break up long lengths of wall planes, and can assist in providing shade to façades to reduce heat load.

Most importantly, balconies create private outdoor space for recreation and enjoyment, plus they provide access to natural light, air, views and landscape features. Balconies also provide opportunity for interaction and surveillance of the street and public spaces, and so provide a public expression of the internal function of buildings.

Balconies can vary in shape and size but they need to be of sufficient depth to be useable.

Air conditioning units and other plant equipment should be located on roofs, in basements, or fully integrated into the building design so as to not detract from private open space.

Balconies enhance the amenity and indoor/outdoor lifestyle of residents. Building articulation such as balconies and deeper window-reveals provide visual interest to the façade.

Balconies provide open living areas, sun and breeze is filtered naturally by street trees.

02 COMMUNAL OPEN SPACE

Facilities should be provided within communal open spaces and common spaces for a range of age groups. These may incorporate some of the following elements:

- seating for individuals or groups
- barbecue areas
- play equipment or play areas
- swimming pools, gyms, tennis courts or common rooms.

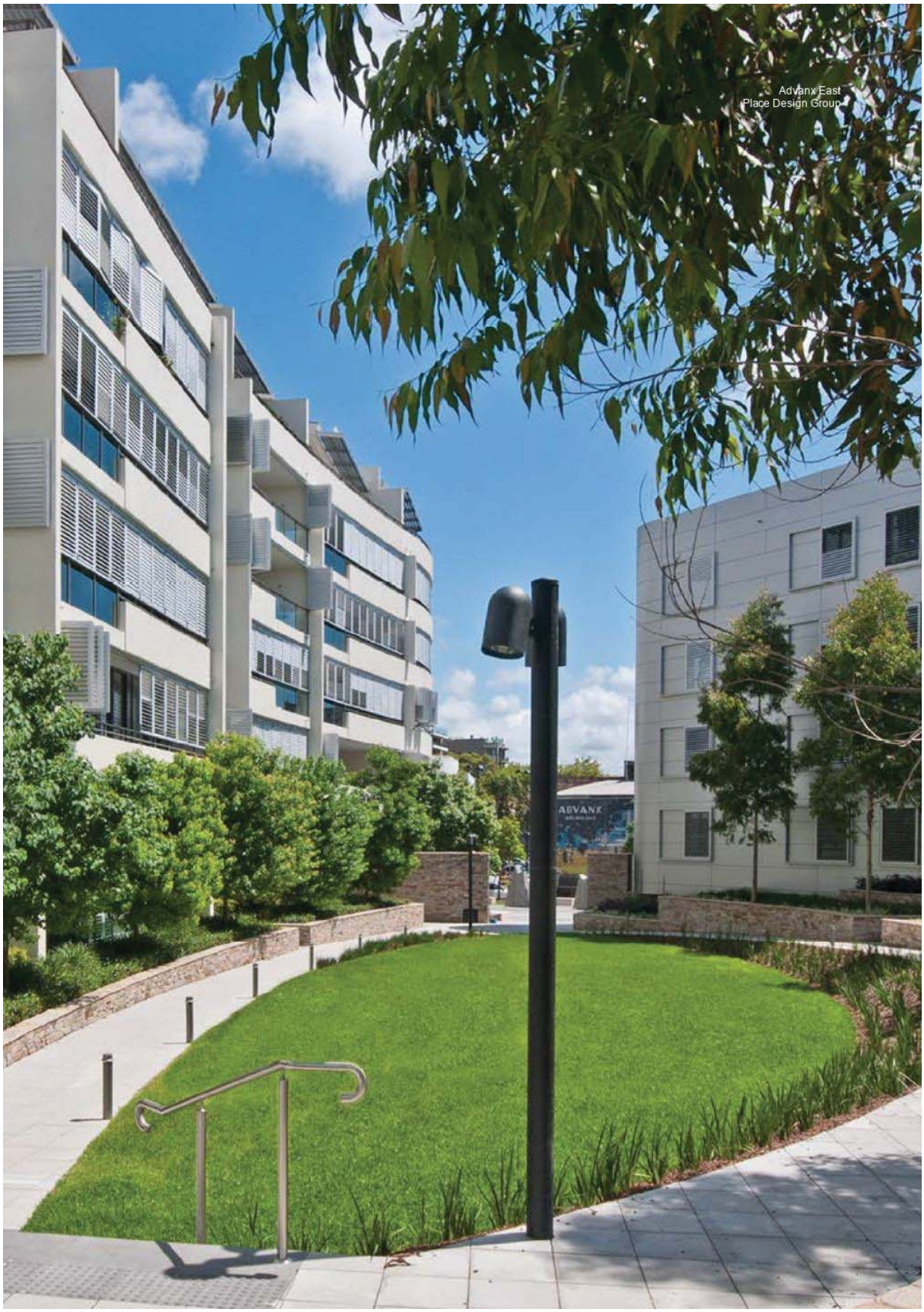
Pedestrian connectivity to key locations is essential to achieving integration with the existing urban fabric. Pedestrian routes need to be safe, well lit and with passive surveillance.

Communal open space with good passive surveillance from surrounding dwellings.

Public open space with facilities in a central and visible position.

Communal open space raised above a drainage area. Whilst this is not central, a well-lit footpath route runs past the barbecue area, which allows for passive surveillance.

Communal open space in a central and visible position.



5 – LANDSCAPING

INTRODUCTION

Landscaping is a key characteristic of Redland City. Appropriate landscaping reinforces the sense of being in a landscape setting.

'Hard landscapes' is a term used to describe the construction materials used, while 'soft landscapes' refer to ecological components such as grass, shrubs and trees. Both hard and soft landscape design contributes to the building setting.

Landscaped gardens can reflect the sub-tropical environment in which the buildings will stand. The South East Queensland sub-tropical environment is home to a vast array of lush foliage and vibrant plant life.

The street interface is critical both in terms of contribution to the landscaping and in providing safe useable areas through 'crime prevention through environmental design (CPTED)' principles.

Further detail is provided in *Planning Scheme Policy 2 Infrastructure Works*.

DESIGN CONSIDERATIONS

- Coordinate the design between professional disciplines to ensure the building design and service locations complement the landscape and public domain.
- Retain existing trees/significant vegetation and incorporate them into the design where possible.
- Design street trees and additional planting of appropriate species to form part of the external interface with the public realm.
- Take advantage of existing site conditions such as changes in level and views in designing landscape areas.
- Allow for establishment of deep rooted trees and mature perimeter planting by providing adequate space between site boundaries and building, car park, basement structure and along common driveways.
- Incorporate landscaping, particularly canopy trees, into the design of developments to provide an outlook, privacy, shade and contribution to character, and positive amenity outcomes.
- Ensure tree species and size respond to orientation.
- Avoid narrow landscaping strips on boundaries which are unable to accommodate significant plants due to their restricted dimensions.
- Consider permeable ground surfaces that allow rainwater to penetrate the soil to support the healthy growth of trees, protect tree root zones, and treat/reduce storm water run-off.
- Co-locate outdoor building services to maximise the opportunity for substantial landscaping.
- Where appropriate, incorporate opportunities for planting on structures in building designs. Design solutions may include green walls or green roofs, particularly where roofs are visible from the public domain.

Varied hard and soft landscaping with mature planting within the site add character and provide shade.

Existing trees retained on frontage contribute to cooler pathways for breezes entering dwellings.

01 EXISTING STREET TREES

Existing street trees are a critical part of the urban landscape character of Redland City. Priority will be given to the retention of these trees. They contribute to the visual amenity, provide shade and can filter cooling breezes.

Poinciana are a notable part of the character of the Redlands.

02 USE NATIVE SPECIES

The preference is to use local native species in landscaping, to also provide habitat and food resources for local fauna species.

03 PLANTING FOR SHADE

Vegetation provides shade, reducing the urban heat island effect and aiding cooling our public spaces. It contributes significant visual amenity and interaction with the natural environment, which has been proven to calm anxiety and contribute to overall health. Large shade trees and landscaping promote cool pathways for breezes entering buildings and contribute to the energy efficiency of buildings especially on western elevations.

Deep planting in front setback assists with shade and cooling environment for the apartments.

04 DEEP PLANTING

Deep planting within the development should be provided at both the front and rear. This assists with privacy and separation of buildings. Semi and underground basements need to be setback from front and rear boundaries to allow the growth of canopy trees over time.

Similarly, planting adjacent any retaining walls will assist in softening the visual impact of these walls.

Extensive landscaped areas both facing the frontage plus within the site.

6 – ACCESS AND PARKING

INTRODUCTION

Managing the location of car parking is important for a positive impact on streetscape character, pedestrian access and amenity. The location, type and design of vehicle access points can have significant impact on the streetscape, the site layout and the building façade design.

High quality materials should be used for hard surfaces, particularly for main accesses and key spaces, to maximise the lifespan of the materials and minimise maintenance costs. Materials can be used to indicate different functions and activities – for example paving slabs to pedestrian areas and blocks/sets to shared surfaces and carriageways.

DESIGN CONSIDERATIONS

- For apartments, design at grade and semi-basement car parks to be sleeved (hidden) behind ground floor units.
- When designing car parking basement areas, provide adequate ground level site boundary setbacks to allow substantial landscaping such as canopy trees with deep roots.
- Avoid providing hard standing areas (including for visitors) for parking forward of the building line.
- Use varied materials for access roads to punctuate and visually shorten their length.
- Change in surface materials can also act as a traffic calming device.
- Design bicycle storage and visitor car parks to be practical, safe and easily accessible from the main public thoroughfare.
- Ensure visitor parking is legible and identifiable from the vehicular entrance.

01 ACTIVE TRANSPORT

A key way to influence behaviour is to integrate active transport facilities, such as cycle centres and 'end of trip facilities' into the fabric of our towns and its buildings. Their addition contributes to active, healthy lifestyles and can improve occupant productivity - while reducing carbon emissions and traffic congestion.

Bicycle or other personal mobility device parking should be secure and easy to access from common areas, for example near entry/exit points of a site to make it convenient for users.

Shared surface clearly delineated by materials and markings.

Parking integrated into the building design. Varied materials for access road punctuates and visually shortens the length of the access road. Change in materials can act as traffic calming.

02 ACCESS AND DRIVEWAYS

In general access-ways should not visually dominate the form of development.

Access driveways should have limited views by placement of building, staggered road alignment, planting and landscape treatment and varied materials. These elements can also visually shorten the length of the access road.

A change in materials and the use of consistent materials for pedestrian and vehicular spaces can act as a traffic calming device.

For apartments, the impact of vehicle access points can be minimised by locating them on secondary/rear frontages.

Shared access with garages set back beneath housing helps to reduce the footprint of car parking at ground level and visual impact.

03 ONSITE PARKING

For apartments, basement and semi basements are the preferred treatment for car parking areas. These should be contained within the building line to enable deep planting areas to occur in setback areas. Natural ventilation must be provided to basement and sub-basement car parking areas.

Ventilation grills or screening devices for car parking openings should be integrated into the façade and landscape design.

For apartments, the impact of vehicle access points can be minimised by locating them on secondary/rear frontages.

At grade car parking is behind the building line and does not dominate the streetscape.

Staggered building alignment and landscaping reduces the visual impact of the internal road.

7 – SERVICING

INTRODUCTION

Multiple dwellings have intensive servicing requirements (energy, boosters, pumps, waste, water, telecommunications, basement ventilation, etc.). Servicing requirements need to be considered as an integral part of the initial design to produce effective outcomes.

Waste areas and services should be screened to ensure they do not dominate the streetscape. Common waste collection facilities should be located in areas easily accessible by both residents and municipal waste collection vehicles. Storage areas can be co-located in garages, allocated car parking areas or incorporated into the building design.

Early liaison with RedWaste will assist in achieving site-specific solutions for waste collection in order to limit the need for HRV's to enter the site. Service and vehicle entries are best located off secondary side streets.

For larger developments where a waste collection vehicle needs to access internal streets or basement car parking, use the smallest waste vehicle possible to reduce heights and space required for turning paths.

Further detail on waste collection is provided in *Planning Scheme Policy 2 Infrastructure Works*.

DESIGN CONSIDERATIONS

- Screen waste collection, loading and servicing areas.
- For larger developments, where a waste collection vehicle needs to access internal streets or basement car parking, design for the smallest waste vehicle possible, to reduce heights and space required for turning paths.
- Minimise visual impact of services, including location of ventilation duct outlets from basement car parks, electrical substations and detention tanks.
- Integrate lift wells and other building services into the overall design.
- Design services and plant to be easily accessible for maintenance but to blend in with the overall design.

01 REFUSE STORAGE

Waste storage and services should be screened with similar or complementary materials to the overall design.

Storage areas should be well ventilated. Their design and location should be visually consistent with the finishes and materials of the rest of the development.

Screened enclosures are preferably not within the front building setback

Waste storage and services are screened and use similar materials to the fencing to help blend with overall design.

Services and plant discreetly housed near mail boxes.

Services and plant need to be easily accessible for maintenance but can be designed to blend in with overall design and simple palette

The service boxes visually blend with the colour palette and the landscaping will mature to soften the appearance of the services.

Plant and services screened but still allows for easy access for maintenance and inspection. Services screened to blend in with overall design and simple palette of colours of building.

Service boxes integrated into the colour palette of the scheme.

Multiple services screened within the design.

Refuse storage located within the site and with screening and good ventilation.

TYPOLOGIES

EXAMPLES OF SITE SOLUTIONS

The following are examples of site configurations for multiple dwellings within Redland City Council.

These examples provide illustrations of how elements from the Design Principles can be incorporated to address the particular constraints that each format of site commonly raises. These are not intended as templates for each configuration as each site should respond to its context.

1. MULTIPLE DWELLINGS ON A NARROW LOT – LOT SIZE 20m x >50m (MDR ZONE)

Figure 1: The access road has been positioned to the west of the buildings so that the private side alfresco/courtyards and living spaces for the units can benefit from natural light and ventilation from the north and east.

Figure 2: Building façade articulation, varied skillion roof form and mixed material fencing provide interest to the street. The complementary material and colour palette of the built structures are softened by vegetated landscaping. The street interface could be improved by lower fencing, or increased transparency in the fencing.

Figure 3: Landscape scheme softens the appearance of the gun barrel access plus the placement of the end units act as a visual stop point.

2. MULTIPLE DWELLINGS ON LOT SIZE 40m x 40m (MDR ZONE)

Figure 4: Varied depth of façade and articulation of roof line together with the cohesive palette of brick, render and light weight cladding creates an interesting streetscape.

Figure 5: Each frontage unit has direct pedestrian access to the street. Combination of timber fencing and metal railing allows for privacy to courtyards plus transparency for access.

Figure 6: Parking, bin storage and services are discretely located behind the building to improve the visual appearance of the development from the street.

3. LARGER MULTIPLE DWELLING DEVELOPMENT (20 UNITS) WITH COMMUNAL OPEN SPACE AREA (LMDR ZONE)

Figure 8: Entrance to site has a strong landscape setting. The varied paving materials throughout the site define the shared surface and encourage a low speed traffic environment.

Figure 7: The site is arranged in a rectangular format, the house patterns display a variety of projections and articulation, and the garages are generally recessed so as not to dominate the street.

Figure 9: Communal open space offers privacy but also benefits from passive surveillance. There are three areas of communal space in this development to cater for differing settings.

4. MULTIPLE DWELLINGS – MID RISE APARTMENT BLOCK SIX-STOREYS (MDR ZONE)

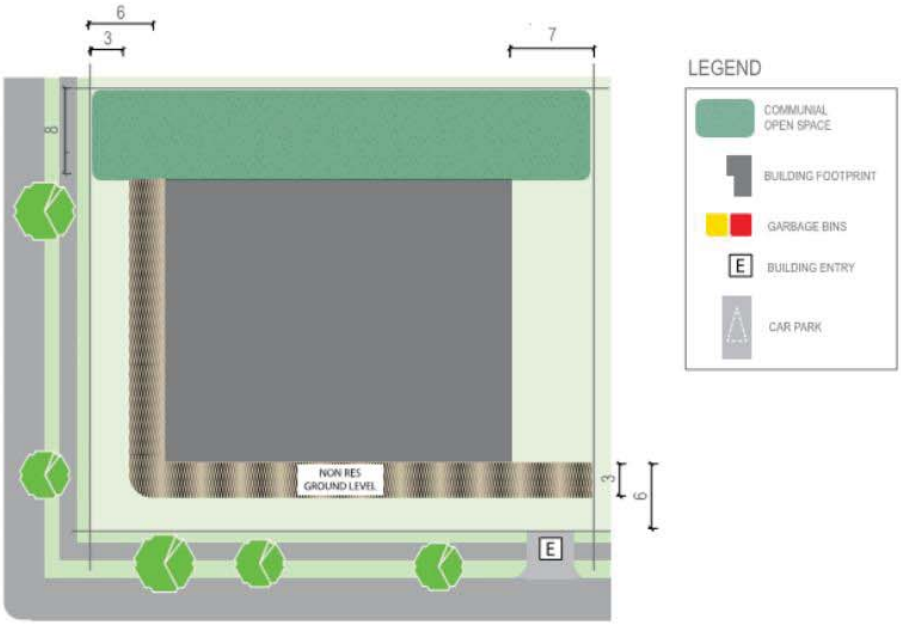


Figure 10: Design includes lattice operable screens, prominent vertical columns, composite timber cladding to the walls and exposed eaves. All units have private open space that achieves natural light. Each unit has dual aspect to promote cross ventilation.

Figure 12: Both the ground floor residential and commercial spaces activate the streetscape. The frontages are articulated and the variation of materials, colour and textures create an attractive façade.

Figure 11: Vehicular access is provided off the secondary road frontage. Car parking is mostly within the basement, with visitor parking in undercroft. Services are screened and incorporated into the overall design.

REFERENCES AND RESOURCES

Council of Mayors (SEQ) Revision 2 – May 2012, Model Planning Scheme code, Queensland

Council of Mayors (SEQ) 2011, Next Generation Planning, Queensland

CONTACT US

Council's City Planning and Assessment team is here to help you.

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Fax: 07 3829 8765
Email: rcc@redland.qld.gov.au

Information on applying for planning and building permits, including checklists and forms, is available at www.redland.qld.gov.au

DISCLAIMER

1. This guide has been prepared to help improve the quality, design and sustainability of residential development.

2. The examples/illustrations used in this brochure are sourced from inside and outside of the Redland City Council municipal area for the purpose of illustration only.

3. A development application copying or recreating any design from the examples/illustrations in this brochure does not guarantee approval of the application. Each proposal is assessed on an individual basis.