KALAMUNDA ACTIVITY CENTRE BUILT FORM DESIGN GUIDELINES

December 2024

City of Kalamunda

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1.0 Introduction

The Built Form Design Guidelines (BFDG) for the Kalamunda Activity Centre creates a set of development standards that will allow the town to evolve and grow within a cohesive structure. This will ensure that appropriate retail and commercial uses are developed in a way that maximises the vibrancy and viability of the centre as a whole. It will also allow for increases in residential density over time, while maintaining the fine-grained, village environment that local residents cherish.

The BFDG provides a transparent framework for planning assessment and redevelopment, allowing flexibility to respond to site and market conditions but also clearly identifying the intended built form and public realm interface in each location. The requirements have been tailored to the specific conditions and opportunities within the Activity Centre, building on existing functioning patterns and supporting new initiatives that have emerged through the visioning and urban design process.

The BFDG sets out a series of 'frontage' requirements that clearly articulate the intended built form relationship between private lots and the public realm within the centre of Kalamunda. This structure allows for significant flexibility in designing new developments while maintaining the key interfaces to support the town centre activities.

For standards relating to development above street level and not designated with a **'Frontage'** type, the BFDG relies on the overall framework set out in the State Planning Policy 7.3 Residential Design Codes, Volumes 1 and 2 (R-Codes). This is one of a suite of planning policies within DesignWA, a planning reform initiative intended to improve the quality of design within Western Australia. The following development standards refer to associated sections of Volume 2 of the R-Codes. As such, please refer to both documents when designing new projects. Where there is a conflict, the BFDG prevails. Development applications are also subject to the balance of the applicable R-Codes sections (Volumes 1 or 2) even if not specifically referenced in this document.

1.1 Purpose

In 2018 the City of Kalamunda (the City) commenced an Activity Centre Precinct Structure Plan (ACPSP) process to guide the future planning and development decisions for Kalamunda's town centre over the next ten years. The existing planning framework is no longer performing as required and a new framework is needed that translates the vision into practical development guidelines that are in the control of local government. The ACPSP needs to be both implementable and enforceable.
The ACPSP framework incorporates and addresses issues such as regional and local context, transport and movement networks, land use and infrastructure, urban form, resource conservation as well staging and implementation.

1.2 Operation

In conjunction with the framework established in the R-Codes (Volume 1 and 2), these design guidelines present a consolidated set of high level built form objectives and specific design guidance that will underpin the successful evolution and growth of the Kalamunda Activity Centre.
The provisions are set up using the following structure:
Design Objectives - the high-level objectives identify the intent and purpose of the guidance. These objectives can be achieved in a multitude of ways. Innovative solutions are encouraged.

Design Guidance - the design guidance provides specific outcomes that need to be met to satisfy the objective. In some cases these are clearly defined metrics, in other cases they are parameters.

These guidelines are applicable to all development within the Precinct Structure Plan area and are to be read in conjunction with the City of Kalamunda Local Planning Scheme No. 3 (LPS 3) provisions and the Kalamunda Activity Centre Plan. For residential and mixed-use development, the following provisions of the R-Codes apply unless otherwise varied by LPS 3, the KACPSP or any other local planning policy:

- For Single House and Grouped Dwellings – R-Codes Volume 1
- For Multiple Dwellings and Mixed Use – R-Codes Volume 2

Table 1 PROVISION APPLICABILITY

#	Provision	House	Grouped Dwellings	Multiple Dwelling	Commercial	Mixed-Use
Site Planning + Massing						
2.1	Frontage Standards	✓	✓	✓	✓	✓
2.2	Place Identity	✓	✓	✓	✓	✓
2.3	Plot Ratio			✓	✓	✓
2.4	Building Height	✓	✓	✓	✓	✓
2.5	Ground Floor Residential	✓	✓	✓		✓
2.6	Building Depth			✓	✓	✓
2.7	Corner Buildings			✓	✓	✓
2.8	Side + Rear Setbacks	✓	✓	✓	✓	✓
2.9	Response to Topography	✓	✓	✓	✓	✓
2.10	Transition Provisions	✓	✓	✓	✓	✓
Building Character						
3.1	Façade Design	✓	✓	✓	✓	✓
3.2	Street Orientation	✓	✓	✓	✓	✓
3.3	Prominent Sites			✓	✓	✓
3.4	Roof Form	✓	✓	✓	✓	✓
3.5	Entry Legibility	✓	✓	✓	✓	✓
3.6	Balconies	✓	✓	✓	✓	✓
3.7	Ceiling Height			✓	✓	✓
3.8	Awnings			✓	✓	✓
3.9	Signage			✓	✓	✓
Access, Parking + Services						
4.1	Car Parking Location			✓	✓	✓
4.2	Access + Vehicle Parking	✓	✓	✓	✓	✓
4.3	Waste + Services			✓	✓	✓
4.4	Bicycle Parking			✓	✓	✓
Landscape						
5.1	Tree Retention			✓	✓	✓
5.2	Soft Landscaping	✓	✓	✓	✓	✓
5.3	Roof Terraces			✓	✓	✓
5.4	Communal Open Space			✓		✓
5.5	Fencing	✓	✓	✓		
5.6	Waste + Recycling			✓	✓	✓
Special Considerations						
6.1	Solar Access	✓	✓	✓	✓	✓
6.2	Universal Design			✓	✓	✓
6.3	Heritage + Adaptability	✓	✓	✓	✓	✓
6.4	Privacy Protection	✓	✓	✓	✓	✓
6.5	Staged Development			✓	✓	✓
6.6	Safety + Security	✓	✓	✓	✓	✓

In instances where these guidelines refer to a provision of Volume 2 of the R-Codes, they are intended to apply to all multiple dwelling residential and non-residential development in the Activity Centre Plan area. Some provisions also apply to the development of Single Houses and Grouped Dwellings within the KACPSP area (see Table 1 - Provision Applicability to left).

1.3 Design Review Panel

In 2018, the City of Kalamunda established its first Design Advisory Committee, now known as the Design Review Panel (DRP), to provide professional, discretionary input into the design review process. These guidelines will form the basis upon which design proposals will be evaluated.

The guidelines are built upon the ten foundational principles of Design Excellence found in SPP 7.0 Design of the Built Environment, which are: context and character, landscape quality, built form and scale, functionality and build quality, sustainability, amenity, legibility, safety, community, and aesthetics.

All development proposals within the KACPSP area are subject to review by the City's DRP.

1.4 Relationship With Other Documents

The Kalamunda Activity Centre Built Form Design Guidelines has been developed with regards to several other key documents to assist City and community with the visioning and delivery of public realm within the Kalamunda Activity Centre core.

The masterplan has been prepared in conjunction with the following documents:
- Kalamunda Activity Centre Precinct Structure Plan
- Kalamunda Activity Centre Landscape Master Plan

The Built Form Design Guidelines have been prepared with due regard to the following strategic and regulatory documents:
- SPP 7.3 Residential Design Codes (Volumes 1 and 2)
- SPP 7.0 Design of the Built Environment, V1, February 2019
- Metropolitan Region Scheme
- Perth and Peel @ 3.5 million, including North-East Sub-Regional Planning Framework
- Local Planning Scheme No.3
- Kalamunda Town Centre Planning and Urban Design Guidelines (in effect as of 20 June 2011)
- SPP 3.5 Historic Heritage Conservation
- SPP 3.7 Planning in Bushfire Prone Areas
- Liveable Neighbourhoods (2009) and Draft Liveable Neighbourhoods (2015)
- City of Kalamunda Local Planning Strategy 2010
- Stirk Park Master Plan
- Building Code of Australia, Volumes 1 and 2 of the National Construction Code 2016
- Australia Standard 1428.1 - 2009, Design for access and mobility
- Liveable Housing Design Guidelines, 4th Edition (2017)


SNAGS SONS

2.0 SITE PLANNING & MASSING

2.1 Frontage Standards

Objective

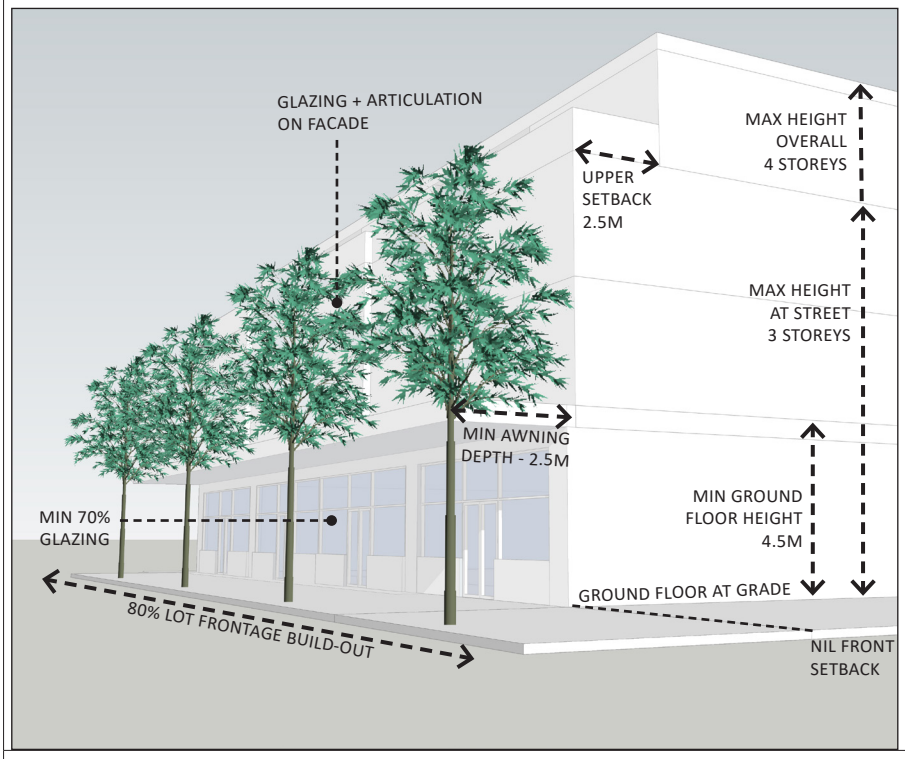
For the most critical street edges within the Activity Centre, a series of detailed development standards (Frontages) have been created to ensure an appropriate interface with the adjacent public realm that is consistent with the intended urban design outcome. This includes minimum and maximum front setback requirements as well as a range of other considerations relating to the design of the front building facade.

Properties without a nominated Frontage are subject to the design standards of their.applicable R-Coding (Volume 1 or 2) along with the provisions of these design guidelines.

Design Guidance

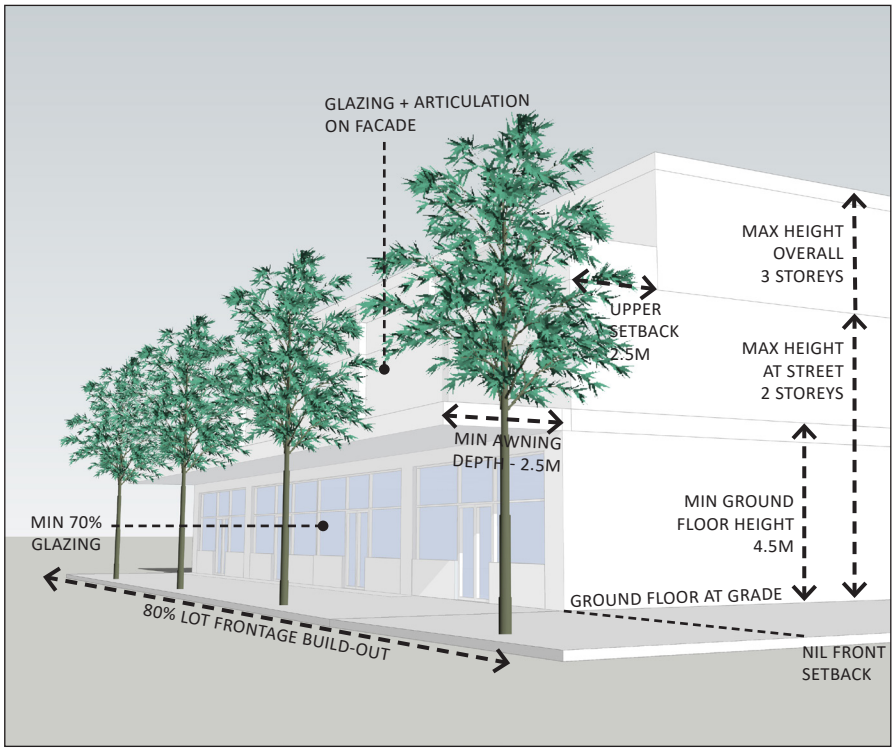
- **Frontage** designation as per Figure 5 - Built Form Controls Map.
- Where designated with a **Frontage** on Figure 5, development standards are in accordance with Table 2 - Development Requirements.
- On sloping sites, achieving at-grade entrances is challenging. Floor levels may vary from between 0.5m above to 0.5m below grade along footpath, but building entries must conform to BCA universal access requirements and AS1428.1.
- Clear glazing requirement applies to street facing facades (measured up to 3m in height)
- **Frontage Build-Out** requirements are intended to create a consistent built edge along a street, and relate to the identified building line across the front of the site, as set by the front setback.
- **Building Articulation** of ground floor shopfronts is encouraged, including inset entries, creative signage, window displays, transom windows, and varying materials such as timber or brick expressed as piers, plinths, and beams to provide visual interest. Unarticulated glazed shopfronts are not encouraged.

Figure 1 Frontage Type 1



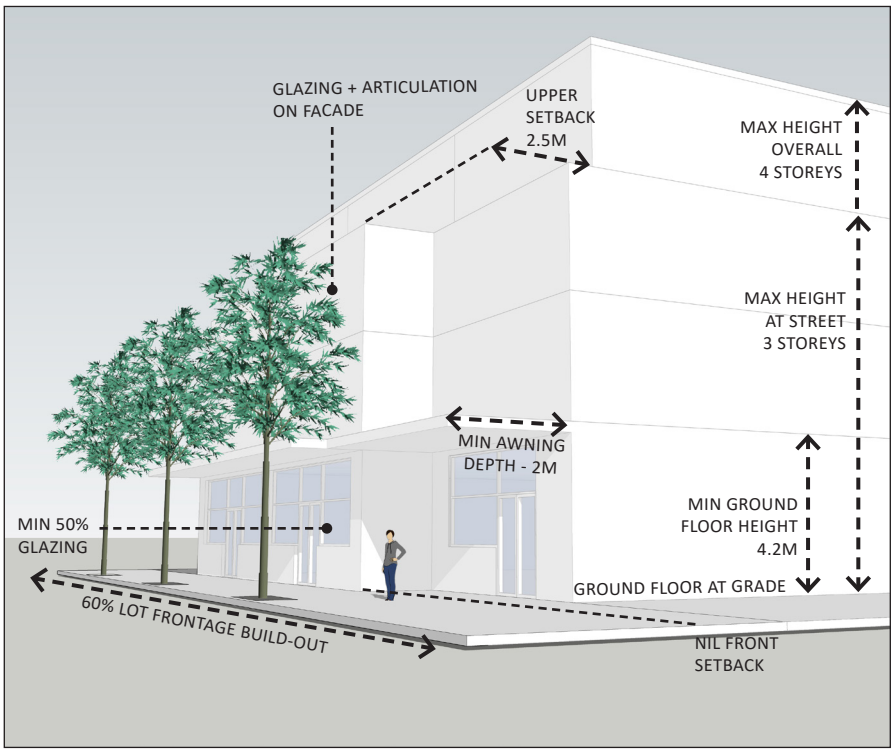
Frontage 1 – This is applied to building edges with the highest focus on activation at the ground level, typically in retail main street precincts. This type is characterised by buildings edging the footpath, generous clear glazing, frequent building entries, awnings, and easy access at grade.

Figure 2 Frontage Type 2



Frontage 2 – This is applied to building edges with the highest focus on activation at the ground level and to retain a more intimate scale, typically in the shared space of Central Mall. This type is characterised by lower building heights and buildings edging the footpath, generous clear glazing, frequent building entries, awnings, and easy access at grade.

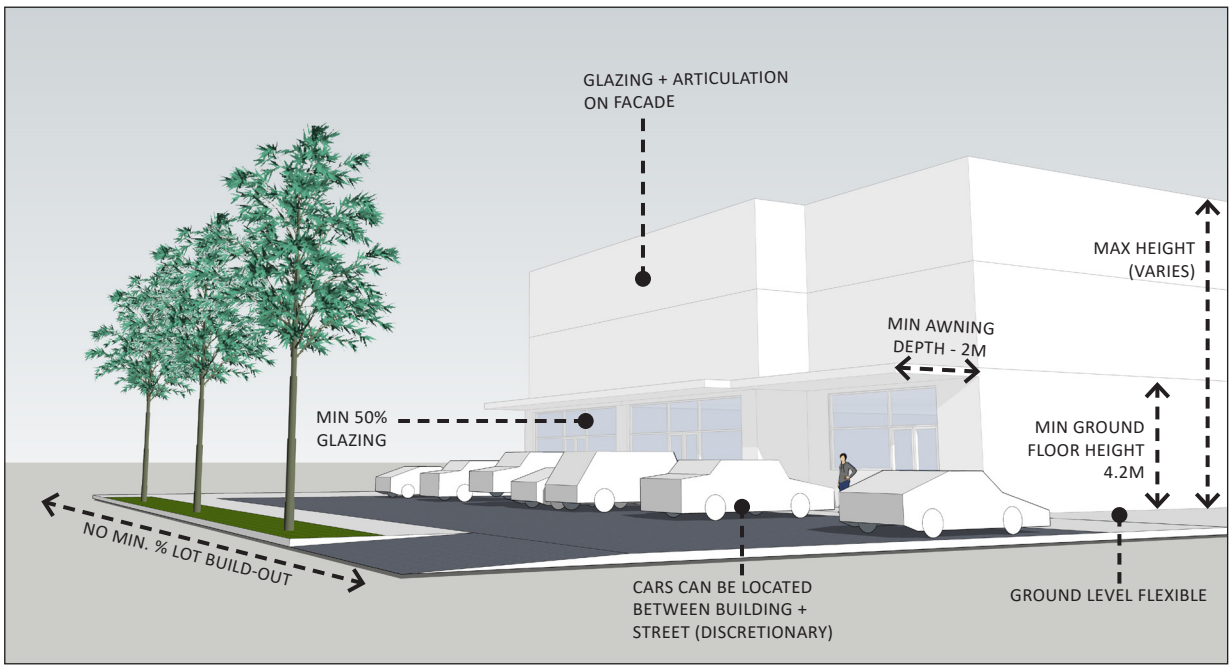
Figure 3 Frontage Type 3



Frontage 3 – This is applied to building edges with a moderate focus on activation at the ground level, typically on the periphery of retail main street precincts. This type is characterised by most buildings edging the footpath, modest amounts of clear glazing, frequent building entries, reasonable coverage of awnings, and easy access at grade.

Figure 4 Frontage Type 4

Frontage 4 – This is applied to building edges with a moderate focus on activation at the ground level, where flexibility is required to address site conditions or potential land uses. With appropriate justification, this flexibility can include larger setbacks, entries above footpath level, and even car parking between the building and street. Regardless of the ultimate agreed design solution, the intention is that the resulting building address the adjacent street in a way that creates an attractive, positive urban interface.



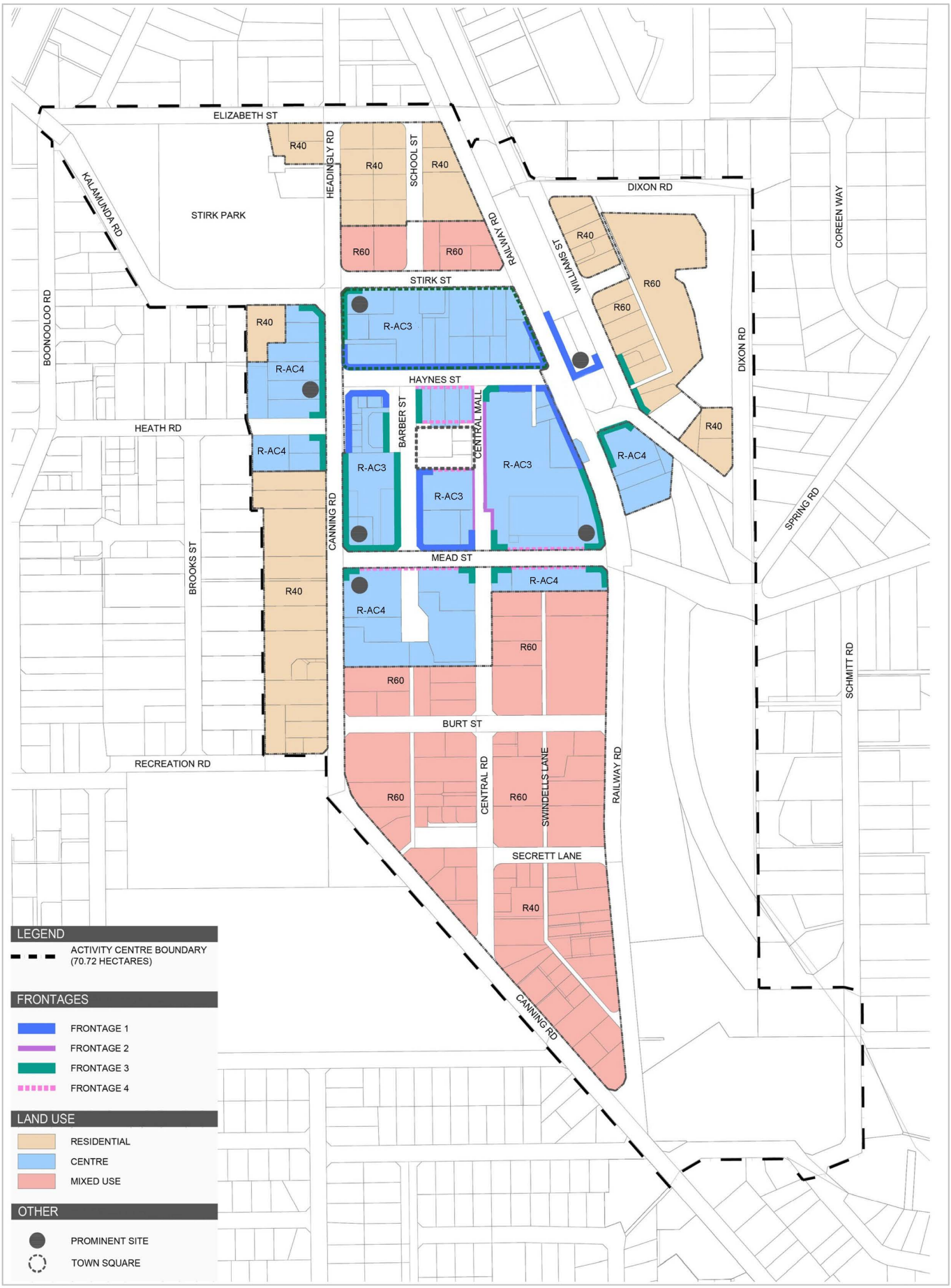


Figure 5 Built Form Controls Map

Table 2 Development Requirements

ELEMENT	PROVISION	FRONTAGE 1	FRONTAGE 2	FRONTAGE 3	FRONTAGE 4	NO FRONTAGE
Primary Street Setback	**Min. Setback**	Nil	Nil	Nil	Nil	Refer R-Codes (Volume 1 or 2)*
	Max. Setback	0.5m	0.5m	0.5m	Discretionary	None
	Upper Level Setback	2.5m (above 3rd storey)	2.5m (above 2nd storey)	2.5m (above 3rd storey)	2.5m (above 3rd storey)	2.5m (above 3rd storey)
Ground Floor	**Floor Level**	Footpath Level (+/- 0.5m)	Footpath Level (+/- 0.5m)	Footpath Level (+/- 0.5m)	Discretionary	Refer R-Codes (Volume 1 or 2)
	Min. Floor to Floor Height	4.5m	4.5m	4.2m	4.2m	Refer R-Codes (Volume 1 or 2)
	Min. Clear Glazing %	70%	70%	50%	50%	None
	Min. Frontage Build-Out	80%	80%	60%	Discretionary	None
Awnings	**Min. % of Frontage**	90%	90%	80%	Discretionary	None
	Min. Depth	2.5m	2.5m	2m	Discretionary	N/A
	Min. Height	3m	3m	3m	3m	N/A
	Max. Height	4.5m	4.5m	4.5m	4.5m	N/A
Onsite Parking	**Between Street + Bldg**	No	No	No	Discretionary	Discretionary
Building Entrance	**Primary Pedestrian Access**	Public verge	Public verge	Public verge	Refer R-Codes (Volume 2, Section 3.7)	Refer R-Codes (Volume 1 or 2)
Building Height	**Max # Storeys**	Refer R-Codes (Volume 1 or 2)	3	Refer R-Codes (Volume 1 or 2) *** Maximum 4 storeys in R-AC3**		
Boundary Wall Height	**Max. # Storeys**	Refer R-Codes (Volume 1 or 2)	3	Refer R-Codes (Volume 1 or 2)		
Side / Rear Setback	**Min. Setback**	Refer R-Codes (Volume 1 or 2)				
Building Bulk	**Max Plot Ratio**	Refer R-Codes (Volume 1 or 2)				
* Primary Street Setback for Non-Residential Uses at Ground Floor in Residential or Mixed-Use zones: Min. 2m / Max 3m						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2.2 Place Identity

Objective

New buildings within the Kalamunda Activity Centre should have an architectural character that is attractive and compatible with the surrounding buildings. This character should draw from prominent materials and colours of the area, and should express and strengthen the intended place identity of "Home in the Forrest."

Design Guidance

- While replicating historical buildings is not the aim, new projects should creatively interpret these existing materials, forms, and patterns in a contemporary manner.
- Buildings should pick up on the fine grained rhythm of the street using building articulation or repeating vertical elements to add texture and create pedestrian scale.
- Appropriate feature materials and forms are those that link the project to the surrounding bush or the agricultural hinterlands. These include use of stained or painted timber, stone, wrought iron, heritage brick, earthy colours, and simple roof forms found in vernacular agricultural buildings.
- Below is an indicative colour palette sourced from the existing townscape:

dark painted timber

lime-based render

sand-based cream mortar

heritage red brick

grey metal roofing

stained timber

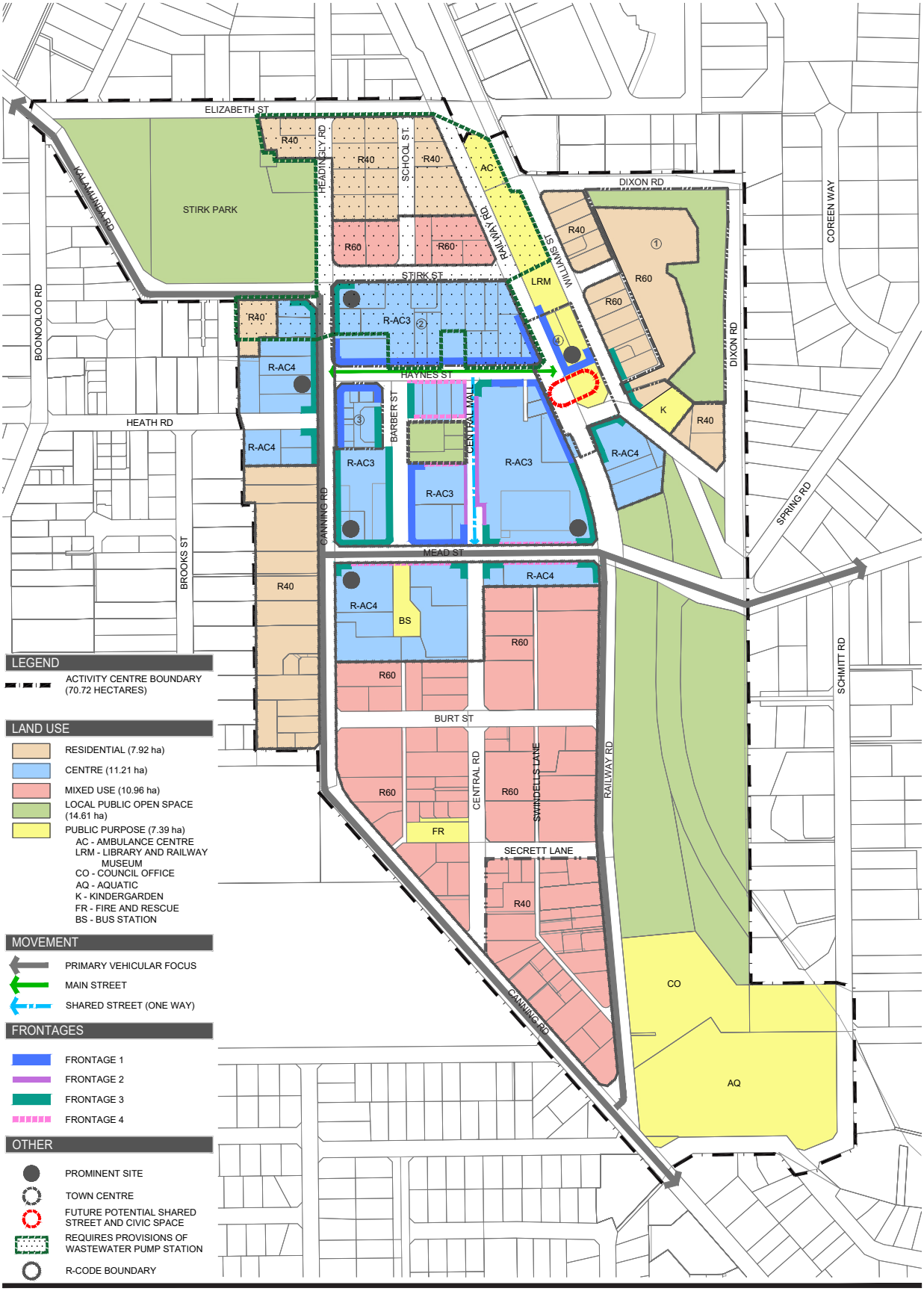


Figure 6 Kalamunda Activity Centre Precinct Structure Plan

2.3 Plot Ratio

Objective

The plot ratio of new buildings within the Kalamunda Activity Centre is limited to assist in achieving the following objectives:

- Ensure sufficient natural lighting and cross-ventilation within buildings to reduce their environmental impact
- Protect against over-development of sites that can lead to loss of landscaping opportunities and bulky buildings that are out of character with the Kalamunda Activity Centre.

Design Guidance

- Maximum plot ratio allowed as per the R-Coding shown in Figure 6 - Kalamunda Activity Centre Precinct Structure Plan and associated provisions as per the R-Codes (Volume 1 and 2).
- Additional plot ratio allowance may be applicable in some circumstances.

2.4 Building Height

Objective

- Building heights within the Kalamunda Activity Centre are controlled to assist in achieving the following objectives:
- Maintain a building scale consistent with the existing town centre character to encourage pedestrian activity and protect human comfort
- Limit excessive overshadowing of public spaces and private gardens / buildings
- Avoid significant differences in building height between adjacent properties to ensure a cohesive streetscape.

Design Guidance

- Maximum heights:
  - For properties with designated **Frontages** on Figure 5 - Built Form Controls Map, heights as per Table 2 - Development Requirements.
  - For properties without a designated **Frontage**, heights as per R-Codes (Volume 1 and 2).
- Maximum heights are set in storeys.
- Additional height allowance may be applicable in some circumstances.
- Minimum ceiling heights are as per Section 4.3 of the R-Codes Volume 2.
- Accessible roof decks or terraces are not considered a storey, but are subject to the same visual privacy provisions as Balconies per R-Codes, Volume 2, Section 4.4.
- Roof shade structures are not considered a storey if they meet the following criteria:

    - Open on at least 3 sides
    - Maximum 150m2 in area
- Roof shade structures, mechanical equipment, and vertical circulation overruns on flat roofs are subject to the following restrictions:
    - Set back from perimeter wall min. 6m facing a street, and 2.5m facing an internal lot boundary
    - Maximum height 3.5m
- Mezzanine not counted as a storey, subject to the following limitations:
    - No larger than 1/3 of floor plate up to 200m2 (BCA definition)
    - Can include enclosed rooms such as bathrooms, bedrooms or wardrobes
    - Should not be expressed externally on facade as a separate storey
- Habitable space constructed within a pitched roof space (attic) is counted as a storey
- Habitable space constructed at least half below ground does not count as a storey
- On sloping sites, determination of building height is based on the **Apparent Height** of the building visible above natural ground level when viewed as a pedestrian from adjacent streets or public spaces.

Landscaping and level change - residential ground floor

2.5 Ground Floor Residential

Objective

On the periphery of the retail core (land zoned Residential or Mixed Use), residential uses at ground floor may be appropriate. However, the interface at street level must be carefully regulated to ensure appropriate levels of privacy for occupants while also creating a safe, friendly atmosphere within the public realm. This can be achieved through various configurations of setbacks, landscaping, fencing, and floor level elevation.

Design Guidance

- Design principles and configurations for creating appropriate ground floor residential interfaces are outlined in the R-Codes, Volume 2, Sections 3.6 and 3.7. These provisions are not relevant to sites subject to a **Frontage** designation as per Figure 5 - Built Form Controls Map.
- Dimensions identified in the R-Codes, Vol. 2, Section 3.6 show configurations that achieve an appropriate balance between privacy and public realm activation; however, these are for illustration purposes only. Street setback requirements are set according to the R-Codes Volumes 1 and 2.
- In general, finished floor level of ground floor residential facing the street should not exceed 1m above footpath level.
- Finished floor levels of ground floor residential should never be below the footpath level, unless building is set back 10m or more from the street.

2.6 Building Depth

Objective

- The depth of new buildings within the Kalamunda Activity Centre is limited to assist in achieving the following objectives:
  - Promote better access to natural light and ventilation within buildings
  - Avoid wide, bulky buildings that do not have the fine-grain scale that is consistent with the existing town centre

Design Guidance

- Measuring the maximum building depth is as per the R-Codes, Volume 2, Section 2.6.
- Application of building depth standards:
  - Is measured above ground floor
  - Does not include balconies or open, external walkways
  - Does not apply to single houses or grouped dwellings
  - Is calculated based on the average depth in highly-articulated floor plates
  - Is measured to the exterior face of the building on both sides
- Maximum depth for:
  - Apartments (building with units facing in one direction with edge corridor) – 12m
  - Apartments (building with units facing in both directions with central corridor) – 22m
  - Office buildings – 25m
  - Other Uses – discretionary (subject to review by the Design Review Panel)

Strong corner building addresses both streets

2.7 Corner Buildings

Objective

Well-designed corner buildings are critical component of a cohesive, urban town centre. They define the edges of intersections, and present two façades to the public realm. They present opportunities for building expression and changes in scale. New corner buildings can have a disproportionate positive (or negative) impact on the streetscape; as such, they should be designed and reviewed carefully.

Design Guidance

- Corner lots should locate a building at the corner of the site, addressing both street frontages.
- The corner should be emphasised and articulated in the architectural expression of the building (eg. corner entry, special awning treatment, signage, vertical element) to assist with wayfinding and general legibility of the streetscape
- Minimum **Frontage Build-Out** requirements, if required by **Frontage** type, can be reduced by 20% for each street edge on corner sites.

2.8 Side & Rear Setbacks

Objective

Side setbacks within the Kalamunda Activity Centre are controlled to assist in achieving the intended built form character and to provide certainty to property owners about the appropriate internal boundary interface when redeveloping a site. In the core, building on the side boundaries is allowed to maximise development opportunity and create an urban character (attached streetscape). In fringe areas, space between buildings for landscaping is desirable (detached streetscape).

Streescape Character Types fall into two categories:

Detached Streetscape (R40 to R60) – streetscapes that emphasise landscape between buildings and a more informal relationship to the street alignment.

Attached Streetscape (R-AC4 to R-AC3) – streetscapes that create a consistent edge of contiguous building frontages with a direct role in positively shaping urban space.

Design Guidance

- Side setbacks are set by the applicable R Coding of the property, and are listed in the R-Codes Volume 1 and 2.

Level changes can be softened by landscaping and terracing retaining walls

2.9 Response To Topography

Objective

Design buildings to respond to Kalamunda's undulating terrain, working with rather than against the topography to achieve an integrated outcome. Building should strive to positively relate to the street, with ground floor levels at or slightly above footpath level.

Design Guidance

- Prior to confirming any design decisions, new developments should undertake a thorough site analysis (outlined in the R-Codes, Volume 2, Section 3.1) to ensure that the new building takes full advantage of site opportunities and interfaces appropriately with surrounding buildings and public realm.
- Minimise the use of large retaining walls. If they are taller than 1.5m, they should be stepped and landscaped.
- Incorporate retaining as part of the overall building or as part of the landscape proposal.
- Design the building for 'up-slope' and 'down-slope' conditions relative to the street by:
  - balancing car parking access with the creation of a strong building façade along the street. Car parking access often works best at 'down-slope' side of the building.
  - minimising the setback for up-slope conditions to achieve a close relationship between the building and street edge.
  - aiming for level access to the entry door wherever possible. However, where buildings are close to the road and have a residential ground floor, setting finished floor levels slightly higher can assist with privacy (max. 1m). For commercial uses, entries should be designed to achieve universal access requirements.
- Balance cuts into the land with fill, instead of only using cuts or fill alone. Use parts of the slope for the open spaces associated with the development, incorporating it as terracing, and create flat outdoor spaces around the buildings. Battering (creating a consistent slope) across the whole site generally creates unusable spaces.
- Utilise the slope for undercroft (undercut) or basement car parking wherever possible.

2.10 Transition Provisions

Objective

Transition provisions ensure that the more intensive built form within the Activity Centre has an appropriate interface with adjacent lower density areas to reduce the impact of bulk, overshadowing, and overlooking.

Design Guidance

- Applies to all properties within the Kalamunda Activity Centre that share a lot boundary with properties outside the structure plan boundary.
- Applies to all **Attached Streetscape** properties (R-AC4, R-AC3) that share a lot boundary with **Detached Streetscape** properties (R40-R60).
- Transition must be addressed using either of these approaches:
  - Internal boundary setback (side or rear) of applicable property to be increased by 3m (in addition to otherwise required setback)
  - Height limit along applicable boundary reduced to 2 storeys, with upper levels set back minimum of 6m from lower building face
  - Where different frontage types affect a single lot or development site, building height should step at appropriate and natural junctions between and in accordance with different frontage types

The strongest facades have simple, balanced compositions

3.0 Building Character

3.1 Facade Design

Objective

New buildings within the Kalamunda Activity Centre should be carefully designed to present appropriate and attractive elevations to the public realm. Buildings should base designs on time-honoured patterns of good design, while taking inspiration from local vernacular forms and place-appropriate materials. The result should be fresh, contemporary buildings that have a strong connection to the local environment and history.

Design Guidance

- Principles of designing successful building elevations are outlined in the R-Codes, Volume 2, Section 4.10.
- Changes in building plane (**Building Articulation**) is a key strategy used by most successful façade designs, allowing differentiation of elements, reduction in perceived scale of the building, shadow-lines and variation.
- Elements that protrude from the body of the building (eg. balconies, awnings, vertical louvers, shade structures, screens, eaves) can add depth and visual interest to façades.
- Façades should be carefully composed to achieve visual-balance.
- Buildings to generally be designed with a clearly-identifiable base, middle and top expression.
- To avoid a 'pasted-on' look, external cladding materials should only change along a vertical line on an internal corner.
- External cladding materials in the same plane may only change along a horizontal line where there is a clear transitional element between them (eg. 'shadowline' notch or overlapping trim).
- Building elements should be visually convincing in their structural integrity. Heavier-appearing materials (eg. masonry) should generally be used below lighter-appearing materials (eg. timber or metal), and building structure should be an integral aspect of the composition.
- Building materials and forms should be chosen that augment and complement the current character of the Kalamunda Activity Centre and surrounds.

3.2 Street Orientation

Objective

Streets form the primary movement network and public realm within the Kalamunda Activity Centre. Buildings along the street edges define three-dimensional 'outdoor rooms,' a key aspect of an urban environment. This spatial enclosure of the public realm helps to create pedestrian comfort and a sense of intimacy and place identity. To support this objective, buildings should maintain a direct and positive relationship with the street.

Design Guidancer

- In most instances, buildings should maintain an orthogonal relationship with the street alignment.
- Where topography and/or solar orientation dictates, buildings can be stepped or segmented to maintain a relatively consistent street presentation.
- Where maintaining the street edge is impossible or impractical, other elements such as landscape plantings, trees, walls, fences or artworks can be used to achieve the objective.

Distinctive cladding and building geometry highlights street corner

3.3 Prominent Sites

Objective

Certain sites play a particularly important role in setting the intended character and defining key locations / edges of the Kalamunda Activity Centre. These sites are often on visible corners or at the end of key sightlines ('terminated vistas'). The design of these prominent buildings will have a disproportionate impact on the perception of the town centre. As such they have a greater responsibility to offer something back to the community, and will be held to a higher standard of architectural design. In return, these sites will be eligible for development bonuses.

Design Guidance

- **Prominent Sites** designation as per Figure 5 - Built Form Controls Map
- New buildings on sites designated as **Prominent** must:
  - Achieve an exemplary standard of architectural design, as determined by the City of Kalamunda's Design Review Panel.
  - On corner sites, respond architecturally to the corner condition in a way that emphasises the corner. Examples of this include increased height, vertical architectural element, corner entry, bay window, blade signage, special awning treatment, distinctive cladding material, etc.
  - On sites that terminate vistas, place vertical elements, bays or entries (elements that are obvious at a distance) at the centre of the view line.
- Other solutions to both corner sites and sites that terminate vistas may be appropriate and can be agreed with the Design Review Panel.

3.4 Roof Form

Objective

New buildings within the Kalamunda Activity Centre should be carefully designed to present appropriate and attractive roof forms to the public realm.

Design Guidance

- Principles of designing successful roof designs are outlined in the R-Codes, Volume 2, Section 4.11.
- A variety of roof forms may be appropriate for the Kalamunda Activity Centre, including flat (with parapet), hip, gable, skillion.
- Application of roof form is generally linked to intended land use and character:
  - Flat (with parapet) - commercial, retail or mixed-use (generic character)
  - Hip, Gable – residential or mixed-use (traditional character)
  - Skillion – any (contemporary / industrial character)
- Roof slope is an important consideration that relates to the form chosen:
  - Flat (with parapet) - min. fall for drainage + parapet high enough to screen roof equipment
  - Hip – 18-25 degrees
  - Gable – 25-40 degrees
  - Skillion – 10-15 degrees
- Dormer windows (contemporary or traditional) are encouraged to break up the scale of large roofs and add articulation to the façade, but must meaningfully relate to interior space.
- Eaves are recommended for most roof types, providing shading to windows and adding visual interest to the elevation via shadow lines.
- North-facing roof is encouraged to be used for solar energy generation.

A splash of colour can assist in making entry more legible

3.5 Entry legibility

Objective
Building entries should be easy to identify, and provide a direct, safe pathway for pedestrians to access the building from the street.

Design Guidance
- Design principles relating to building entries and pedestrian access are outlined in the R-Codes, Volume 2, Section 3.7.
- Entries should play a formative role in the composition of the street-facing façade. They should be emphasised using colour, special awnings, changes in plane, varying material treatment, special landscape treatment, or signage.
- Entries should provide weather cover and appropriate threshold circulation space to assist users in transitioning from internal to external.

3.6 Balconies

Objective
Well-designed balconies support indoor-outdoor living in apartment buildings, providing easy access to sunlight and ventilation for residents. They also create desired articulation on building façades and support passive surveillance to keep public spaces safe.

Design Guidance
- Principles and criteria relating to the design of balconies are outlined in R-Codes, Volume 2, Section 4.4.
- Balconies can project up to 1m into the front setback zone (though not beyond the property boundary).
- In certain circumstances (described in R-Codes, Volume 2, Section 4.4.5), alternatives to balconies such as Juliet balconies, openable walls, bay windows or winter gardens may be acceptable.

3.7 Ceiling Height

Objective
In order to create robust buildings that will be pleasant and functional over their life spans, it is important that they are designed with sufficiently high ceilings. The required ceiling height depends on the intended use, as detailed below. Taller ceilings allow more natural light into rooms, space for ceiling fans, and make small rooms feel more spacious. For commercial applications, taller ceilings allow for required mechanical services above drop-ceilings and create a more generous base to buildings at ground floor.

Design Guidance
- Principles and criteria relating to general ceiling height parameters are outlined in the R-Codes, Volume 2, Section 4.3.
- For sites with a **Frontage** designation as per Figure 5 - Built Form Controls Map, the minimum ground floor ceiling height is set according to the development standards as per Table 2 - Development Requirements.
- For residential applications, ceiling height is measured to the underside of the slab or bulkhead.
- For ground floor commercial or retail applications (subject to a **Frontage** requirement), measurement is floor to floor (top of slab to top of slab above).

A splash of colour can assist in making entry more legible

3.8 Awnings

Objective

Continuous weather protection over footpaths allows the town centre to be comfortably used in all weather, increasing its functionality and vitality by protecting pedestrians from sun and rain. Awnings can also assist in defining building entrances and encouraging pedestrian activity along street edges (eg. al fresco dining).

Design Guidance

- For sites with a **Frontage** designation as per Figure 5 - Built Form Controls Map, the minimum awning provisions are set according to the development standards as per Table 2 - Development Requirements.
- Minimum awning depth may be reduced to accommodate existing or proposed street trees at the discretion of the planning officer, but in no case shall it be less than 1.5m deep.
- Sites not subject to a **Frontage** (as per Figure 5) must provide appropriate weather-protection for users and occupants, depending on the specific building configuration, setback, entry location, and topography. This may include awnings, entry canopies, pergolas, or other similar structures.
- Awnings shall be made of materials that are water proof and provide shade (no clear glass, transparent or permeable materials).
- Awnings to be structurally linked with the building, and be well-integrated into the design of the façade.

3.9 Signage

Objective

Signage within Kalamunda Activity Centre plays an important role in the character and vitality of the town and in the success of the associated businesses. Signage should be well-designed and integrated with buildings to assist customers in locating their destination without creating excessive visual clutter.

Design Guidance

- Any new signage to generally be in accordance with the City of Kalamunda's Local Planning Policy 2 - Advertising Signage.

Car parking areas hidden behind buildings allow streets to be more vibrant

4.0 Access, Parking & Services

4.1 Car Parking Location

Objective

The intended character of the Kalamunda Activity Centre is urban and pedestrian-oriented. As such, careful placement of cars and car parking areas within this framework is critical. In general, on-street parking is encouraged as a low-impact way to incorporate convenient car parking into the streetscape without damaging the intended character. Car parking on private lots between the street and the building dilutes the street edge and reduces visual interest for pedestrians, and is generally discouraged. To reduce its impact on the streetscape, most car parking within the town centre should be hidden behind street-facing buildings.

Design Guidance

- For **Frontage** types 1, 2, and 3, car parking may not sit between the building and the street.
- For **Frontage** type 4, car parking between the building and the street is discretionary, depending on the proposed land use and building configuration. Where it is supported, it should be limited to a drive aisle and single row of parking bays, and screened at the street by a 1m landscape strip.
- If **Frontage Build-Out** requirements are met (Table 2 – Development Requirements), car parking may be brought close to the street for balance of the street edge (screened by a 1m landscape strip).

4.2 Access & Vehicle Parking

Objective

The best town centres are made up of vibrant streets and public spaces lined by active uses and enclosed by a consistent building edge. Minimising the impact from vehicle access to car parking is a critical design objective.

Design Guidance

- Design principles relating to vehicle access are outlined in R-Codes, Volume 2, Section 3.8.
- Crossovers should be strategically placed in locations where they will have the least impact on the efficient functioning of the place.
- Minimise crossover widths and combine shared accessways where possible
- Entrances to structured car parking should be recessed behind the primary building facade
- Car parking areas or garages should be screened or tucked behind buildings, where possible.

Bicycle parking can be sculptural and add visual interests to the streetscape

4.3 Waste & Services

Objective

Design buildings so that they are accessible and functional with regard to service access and waste management. Encourage integrated waste collection strategies that facilitate recycling and reduce land fill. Ensure that buildings can be functionally serviced for delivery and pick-up of goods without unduly impacting on access, parking, or pedestrian amenity.

Design Guidance

- Design principles relating to waste management are outlined in R-Codes, Volume 2, Section 4.17.
- Consolidate service access / loading away from areas of high pedestrian activity
- Waste Management Plans shall be provided for all new developments.
- Design street-facing façades to minimise the impact of electrical panels, fire pump connections, telecommunications, and car parking ventilation.

4.4 Bicycle Parking

Objective

Walkable town centres should encourage all non-single vehicle modes of transport by providing appropriate infrastructure and safety provisions.

Design Guidance

- Design principles relating to bicycle parking and requirements for residential bicycle parking are outlined in the R-Codes Volume 2, Section 3.9.
- Commercial tenancies larger than 1,000m2 should offer end-of-trip facilities to encourage employees to cycle, jog or walk to work.
- End-of-trip facilities should be located near bicycle parking facilities
- End-of-trip facilities should include, at a minimum:
  - two female and two male showers, located in separate changing rooms
  - changing rooms must be secure facilities capable of being locked
  - a locker must be provided for every bicycle parking bay provided
- Bicycle parking for commercial land uses should be provided at the following rates:
  - 1 space per 200m2 of commercial floor space (tenancies less than 1000m2)
  - 1 space per 250m2 of commercial floor space (tenancies over 1000m2)

Retaining mature trees in redevelopments provides instant shade and amenity

5.0 Landscape

5.1 Tree Retention

Objective

Kalamunda is a town set in the Perth Hills and in the bush. As such, a key part of its character is the landscaped setting of the buildings. Promoting and maintaining a generous tree canopy helps to create shade for pedestrians, preserve privacy between buildings, and soften the visual impact of buildings. As such, significant, healthy trees on private lots should be retained and designed around, where practical, and additional trees added to continue to build up this landscape pattern within the town.

Design Guidance

- Design principles relating to **Deep Soil Area,** tree retention and planting on built structures are outlined in the R-Codes, Volume 2, Sections 3.3 and 4.12.
- When proposing to remove a tree worthy of retention (according to design criteria in the R-Codes, Volume 2, Section A3.3.1), the applicant must either replace the tree with an equivalent tree in a **Deep Soil Area** onsite or take on the offset requirements listed in the R-Codes, Volume 2, Section A3.3.7.
- A Landscape Plan must be submitted with the development application indicating proposed deep soil zones, plant and tree species, and calculations showing how the site meets the relevant metrics outlined in the above sections.

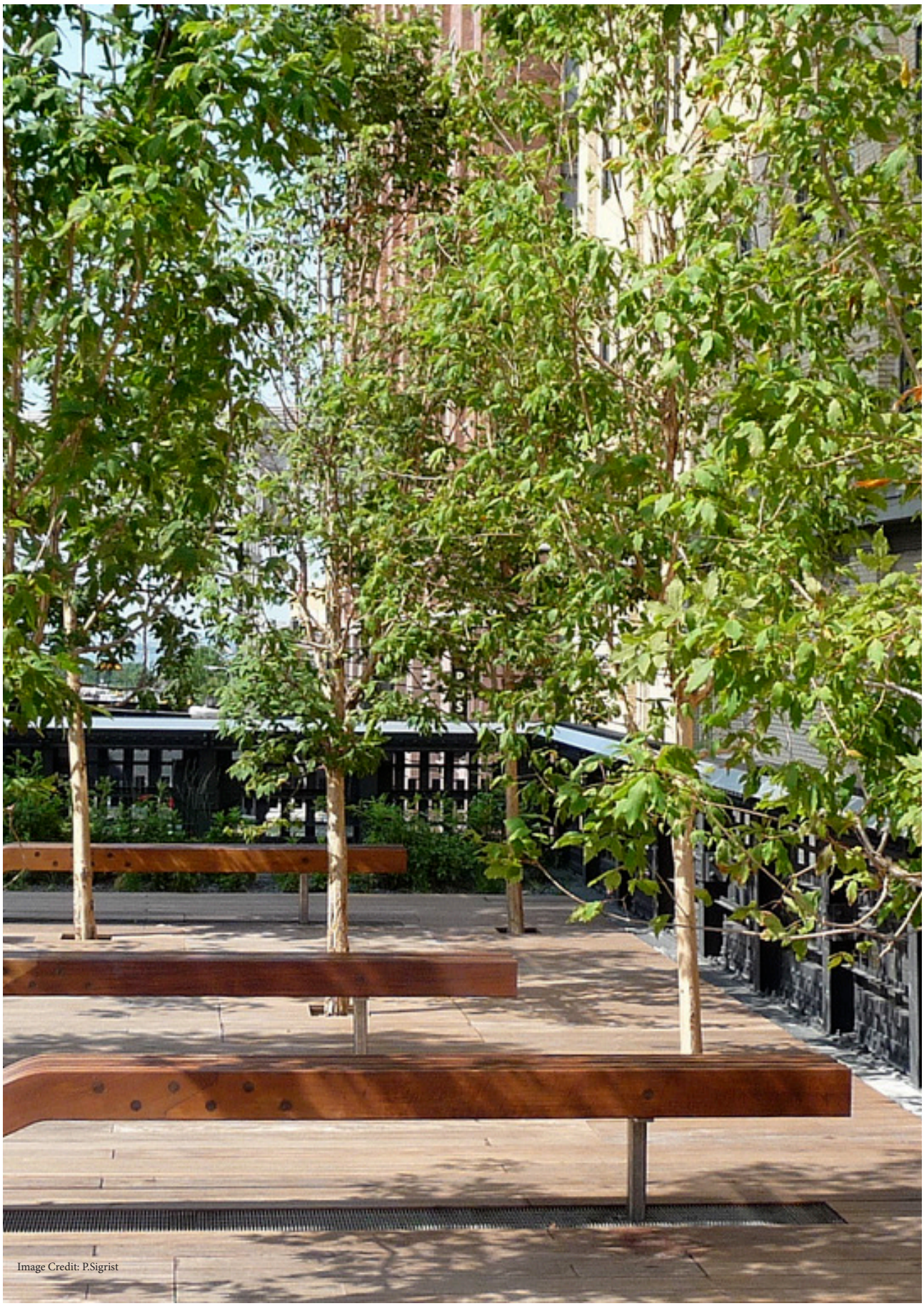
5.2 Soft Landscaping

Objective

Given the bush setting of the Kalamunda Activity Centre, soft landscaping is a crucial aspect of any new development within the town centre. Plant selections and configurations should be selected that add amenity to the site and adjacent streetscape, be easy to maintain, and use water wisely.

Design Guidance

- Design principles relating to landscape design are outlined in R-Codes, Volume 2, Section 4.12.
- Given the surrounding area's history of food production (particularly fruit), consider incorporation of productive food producing trees and plantings and vegetable beds.
- Consider appropriate mix of native plants to support local biodiversity / minimise water use, and non-native plants that can provide other benefits such as splashes of colour and summer shade / winter sun.



Smaller trees can be used on roof terraces to provide shade

5.3 Roof Terraces

Objective

Roof terraces can provide amenity and additional open space on tight sites. They allow access to distant views, sunlight, and communal space for gatherings. Roof terraces are encouraged within the Kalamunda Activity Centre, subject to appropriate design configurations to minimise impacts on neighbours.

Design Guidance

- Accessible roof decks or terraces are subject to the same visual privacy provisions as Balconies per the R-Codes, Volume 2, Section 4.5.
- Roof terraces are encouraged to provide a mixture of hard and soft landscaped areas, and include good solar access and areas that can be shaded in summer.
- Communal facilities such as seating, bbqs, swimming pools, saunas, ping pong tables, garden plots, etc. encourage residents to utilise the space and promote social interaction.
- Roof shade structures are not restricted in area, but will be considered a building storey unless they meet the following criteria:
  - Open on at least 3 sides
  - Maximum 150m2 in area
- If roof structures are larger than 150m2 in area, they can be approved but they are considered a building storey for the purposes of assessing building height.
- Roof shade structures, mechanical equipment, and vertical circulation overruns on flat roofs are subject to the following restrictions:
  - Set back from perimeter wall a minimum of 6m facing a street, and 2.5m facing an internal lot boundary (or 12m from a boundary)
  - Maximum height 3.5m

5.4 Communal Open Space

Objective

In more dense environments where residents have limited exterior space, the incorporation of common open space in projects can facilitate neighbour interaction and provide additional recreation space beyond courtyards and balconies.

Design Guidance

- Design principles relating to communal open space are outlined in the R-Codes, Volume 2, Section 3.4.
- Communal open space not required for residential multiple dwelling projects with 10 or fewer dwellings.
- It is good practice to locate communal open in areas with adequate solar access and ideally co-located with deep soil zones and mature landscaping.
- Communal open space should be located near primary vertical circulation and property entrances to ensure that it is visible, active and well-used by residents.
- The interface between communal open space and dwelling entrances should be carefully designed to ensure appropriate transitions, thresholds and levels of privacy.

Image Credit: Secure-A-Fence

Fencing should integrate with the landscape design

5.5 Fencing

Objective

Fencing can be a useful device to delineate private space. However, the height, colours and design of the fencing needs to be carefully chosen to blend in with the existing streetscape and complement the associated buildings. Front fencing should strike a careful balance between creating a degree of privacy and separation / maintaining a sociable interface with the public realm that promotes neighbour interaction and community safety.

Design Guidance

- Front fencing is not permitted between the building and the front lot boundary on any property subject to a Frontage designation (Figure 5 - Built Form Controls Map).
- The erection and maintenance of dividing fences on internal property boundaries are a matter between neighbours and as such are dealt with by the Dividing Fences Act 1961 (administered by the Department of Commerce).
- A fence up to 1.2m high within the front setback of the property can be constructed without approval (on properties not subject to a **Frontage** requirement).
- Any front fence in excess of 1.2m high requires City approvals and must comply with the City of Kalamunda Fencing Local Law.
- Fencing design, colours and materials should be complementary of the proposed or existing buildings, and should enhance the streetscape.

5.6 Waste & Recycling

Objective

Ensure early consideration of waste management within new projects to allow for easy sorting of waste streams. Waste facilities should be appropriately located to avoid odour impacts on residents, facilitate recycling, and ensure easy collection. At street level, waste storage should be carefully designed to minimise negative impacts on the streetscape.

Design Guidance

- Design principles relating to waste management are outlined in the R-Codes, Volume 2, Section 4.17.
- Consider incorporation of dedicated vertical chutes for waste, recycling and compost items.
- If waste is stored on a level that includes residences or commercial space, ensure that there is sufficient separation to minimise odour impacts.
- Liaise with the City of Kalamunda technical staff at an early stage to work through the proposed approach to waste management and collection.
- Consider communal collection of food waste and incorporation of a composting bin associated with on-site vegetable gardens.

Solar orientation and shading should be a major driver design decisions

6.0 Special Considerations

6.1 Solar Access

Objective

To achieve effective passive solar outcomes and efficient solar energy collection, the massing and layout of new buildings must consider the arc of the sun as a primary design consideration. Any new proposals should carefully consider the repercussions of design decisions on solar access to communal open space, internal living spaces, as well as the overshadowing impact on adjacent properties and buildings.

Design Guidance

- Design principles and criteria relating to solar access and energy efficiency are outlined in the R-Codes, Volume 2, Sections 4.1 and 4.15.
- Design proposals should strive to:
  - protect solar access to solar panels on adjacent buildings
  - avoid overshadowing primary outdoor spaces and courtyards on adjacent properties

6.2 Universal Design

Objective

New developments within the Kalamunda Activity Centre should be designed to facilitate access for people of all modes and abilities.

Design Guidance

- Design principles and criteria relating to universal access are outlined in the R-Codes, Volume 2, Section 4.9.
- 50% of ground floor dwellings should be designed to achieve Silver status under the Liveable Housing Design Guidelines.
- Unless steep topography makes it untenable, the slope from the public footpath to the common entrance to any residential building shall be in accordance with AS1428.1 (2009).
- The slope from the public footpath to the entrance on all commercial, mixed-use, and institutional buildings shall be in accordance with AS1428.1 (2009)

New buildings should be sensitive to the proportions and materials of existing buildings

6.3 Heritage & Adaptability

Objective

In order to preserve the rich history of the area, certain buildings and places are identified as having special heritage value. As such, owners should work with Council to preserve key historic elements of the property when redeveloping their sites. Design of new buildings should also consider the possible future uses of the spaces to allow for maximum flexibility of use to ensure a long and useful building life.

Design Guidance

- Design principles and criteria relating to adaptive reuse of existing buildings are outlined in the R-Codes, Volume 2, Section 4.13.
- The City of Kalamunda has prepared a Municipal Heritage Inventory, in accordance with Section 45 of the Heritage of Western Australia Act 1990. Based on this inventory, the City may propose to list certain properties on the Local Heritage List subject to advertising and communication with the owner.
- Properties on the Local Heritage List may be subject to a heritage agreement with the City in order to protect and preserve the elements identified as having heritage value.
- Redevelopment proposals for any property on the Local Heritage List are subject to satisfactory feedback from the City's Design Review Panel.
- Properties on the Local Heritage List may be exempt from certain Scheme requirements, per Kalamunda Local Planning Scheme 3, Section 7.5(c).
- Owners of properties listed on the State Register or National Heritage List should contact the Heritage Council (WA) to understand their responsibilities and development constraints.

6.4 Privacy Protection

Objective

When designing new projects, it is important to consider and maintain a reasonable degree of privacy protection for sensitive areas of neighbouring properties. This relates to visual privacy and overlooking, and acoustic privacy relating to the impact of loud noise on the amenity of those living nearby.

Design Guidance

- Design principles and criteria relating to visual and acoustic privacy are outlined in the R-Codes, Volume 2, Sections 3.5 and 4.7.
- Visual privacy criteria apply behind the front setback area only.

New buildings should be sensitive to the proportions and materials of existing buildings

6.5 Staged Development

Objective

On larger, staged developments, it is crucial that the early stages of projects retain a positive interface with the public realm and avoid negative impacts on adjacent properties.

Design Guidance

- Buildings proposed as part of the first stage of any development shall address and present to the street in the form of entry points, openings, glazing, and any other appropriate design response.
- Any development proposed to be undertaken in stages shall provide an overall development concept for the site to demonstrate how the built form will relate to surrounding development and the public realm.
- Developers considering a staged approach to development should consider the delivery of key facilities in the earlier stages of development. Alternatively, temporary 'pop-up' elements should be considered in appropriate locations to achieve the policy objectives for certain interfaces.

6.6 Safety & Security

Objective

Kalamunda Activity Centre is intended to be a place where residents, workers and visitors feel safe and secure at all times. This is achieved by promoting passive surveillance from buildings, good public lighting, and activity within the public realm.

Design Guidance

- Design principles and criteria relating to public domain interface are outlined in R-Codes, Volume 2, Section 3.6.
- Developments shall clearly delineate between public and private realm.
- Building entrances shall be orientated to face open and active spaces.
- Extensive expanses of blank walls are not permitted.
- New developments shall maximise passive surveillance by orientating habitable rooms with views over public streets and public open spaces.
- Lighting is to be provided to all public spaces including under awnings, parking areas, service areas, footpaths and entry and exit points.
- Buildings shall be constructed from materials that are resistant to vandalism.

New buildings should be sensitive to the proportions and materials of existing buildings

7.0 Resources

7.1 Definitions

Apparent Height
The number of storeys of a building, as visible from the adjacent public road reserve or open space.

Attached Building
A building with one or more parapet walls on interior boundaries that, when paired with a similar adjacent building, would form a contiguous building mass.

Building Articulation
Changes in the depth of the surface of a building facade to create visual interest and shadowlines, and assist in breaking-up the massing into a series of separate components.

Cone of Vision
The limits of outlook from any given viewpoint for the purposes of assessing the extent of overlooking from that point.

Deep Soil Area
An area of ground unencumbered by any below-ground structures that would interfere with tree growth.

Detached Building
A building with boundary setbacks such that it is not in contact with any other buildings.

Frontage
Additional development controls relating primarily to the interface between the street-facing building facade and the street.

Frontage Build-Out
The minimum percentage of the front property boundary that must be built-out with a building along the front setback line.

Prominent Sites
Visually important sites within the town centre that assist with wayfinding, signfiy cultural importance, and/or help build a sense of place (often located on corners or at the end of view corridors).

7.2 Primary controls

Current development standards table from the R-Codes, Volume 2., Table 2.1 Primary Controls, provided for convenience. Before relying on these standards, please confirm that this is the most recent version (www.planning.wa.gov.au/publications/DesignWA.aspx).

	Applies to R-Code areas, default settings apply unless alternative provisions defined in local planning instruments			**Applicable where designated by local government in local planning scheme, precinct structure plan, local development plan, local planning policy**				
Streetscape contexts and character *refer A2*	**Medium-rise**	**High density urban residential**		**Neighbourhood Centre**	**Medium-rise urban centres**	**High density urban centres**		**Planned Areas**
Site R-coding	R80	R100	R160	R-AC4	R-AC3	R-AC2	R-AC1	R-AC0
Building height (storeys) *refer 2.2*	4	4	5	3	6	7	9	Refer to local planning scheme, local dev plan and/ or precinct controls as applicable
Boundary wall height (storeys)[1,2] *refer 2.4*	2[3]	2[3]		2	3	4		
Minimum primary and secondary street setbacks *refer 2.3*	2m	2m		2m or Nil[5]	2m or Nil[5]	2m or Nil[5]		
Minimum side setbacks[6] *refer 2.4*	3m	3m		Nil				
Minimum rear setback *refer 2.4*	3m	6m		6m	Nil	Nil		
Average side setback where building length exceeds 16m *refer 2.4*	3.5m	3.5m	4.0m	NA	NA	NA		
Plot ratio[7] *refer 2.5*	1.0	1.3	2.0	1.2	2.0	2.5	3.0	
Notes	[1]Wall may be built up to a **lot boundary**, where it abuts an existing or simultaneously constructed wall of equal or greater proportions [2] Where the subject **site** and an affected adjoining site are subject to different density codes, the length and height of any boundary wall on the boundary between them is determined by reference to the lower density code [3] Boundary wall only permitted on one boundary, and shall not exceed 2/3 length. [5] Nil **setback** applicable if commercial use at ground floor [6] Boundary **setbacks** will also be determined by provisions for **building** separation and visual privacy within this SPP and building separation provisions of the **NCC**. [7] Refer to Definitions for calculation of **plot ratio**							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