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CONTACT

Lisa Riddle Director LRiddle@ethosurban.com

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This document has been reviewed by:

Lisa Riddle 24.05.2018

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Ethos Urban operates under a Quality Management System that has been certified as complying with ISO 9001:2008. This report has been prepared and reviewed in accordance with that system.

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ACN 615 087 931 Pty Ltd.
ABN 13 615 087 931 ACN 615 087 931
www.ethosurban.com
Level 8/30 Collins Street Melbourne
VIC 3000 t +61 3 9419 7226

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1.0

INTRODUCTION & BACKGROUND REVIEW

1.0 Introduction & Background Review

1.1 Introduction



01 Development in the Residential Growth Zone



02 Development in the Residential Growth Zone

The City of Whitehorse implemented the new residential zones through Amendment C160 on 14 October 2014. The application of the zones was determined through the development of a comprehensive Housing and Neighbourhood Character Strategy 2014. Approval of the Amendment by the Minister for Planning did not incorporate all the Council's proposed provisions, including some provisions in the schedules proposed for the Residential Growth Zone (RGZ). The proposed RGZ provisions that were omitted from the approved amendment included mandatory height controls of 3 storeys (11 metres) for Schedule 1, and 4 storeys (13.5m) for Schedule 2.

The zone provisions were subsequently changed by a State-wide amendment (VC110 gazetted on 27 March 2017) to the Victoria Planning Provisions (VPP) and accompanying Practice Notes to specify mandatory and discretionary heights in all zones, and the Council's ability to alter these.

Since introduction of Amendment C160, the Council and community have become concerned at the form and height of some developments occurring along the main road corridors in the Residential Growth Zone, and in particular the interface with adjoining residential properties in the General Residential and Neighbourhood Residential Zones. The Council commissioned

Ethos Urban to develop appropriate built form controls for these areas to better manage outcomes consistent with the land use and built form aims for these areas and the impact on adjoining areas. These controls must be consistent with the regulatory framework now provided in the Victoria Planning Provisions.

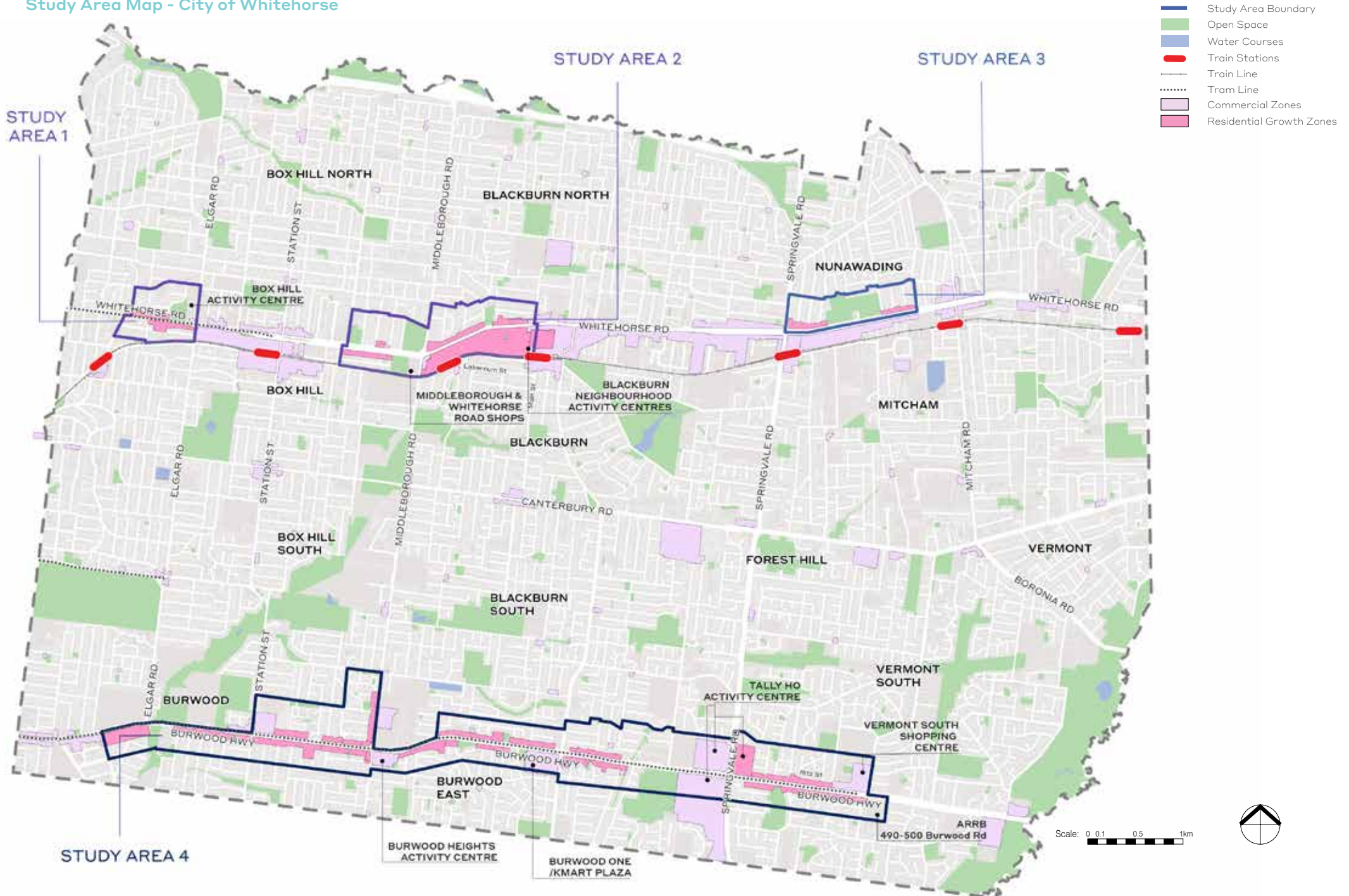
1.2 The Study Area

The Study Area for this project is focused on the Residential Growth Zone along the two major east-west transport corridors in Whitehorse, Whitehorse Road and Burwood Highway. The study requires consideration of the impacts of development in the Residential Growth Zone on the adjoining residential areas which are within the General Residential or Neighbourhood Residential Zone. The map overpage shows the Residential Growth Zone that is the subject of this study. It is noted that the study excludes the Residential Growth Zone within Burwood Heights, Tally Ho and Box Hill Activity Centres, as these have existing adopted controls that have been the subject of separate studies. In addition, the ARRB site at 490-500 Burwood Highway, Vermont South is also excluded from this study as it is undergoing a separate process, however future built form controls for this site will have regard to the outcomes of this study as well as neighbouring development.

To assist within the latter parts of the report, the entire study area has been divided into four parts. The Study Areas are defined as follows, and shown on the map overpage:

- Study Area 1: Whitehorse Road, Mont Albert: The RGZ is on both sides of the road generally between Elgar Road and Hood Street
- Study Area 2: Whitehorse Road, Box Hill & Whitehorse Road, Blackburn: The RGZ is on both sides of the Whitehorse Road, Box Hill generally between Miller Street and Whitehorse Reserve and on both sides of Whitehorse Road, Blackburn generally between Middleborough Road and Williams Road
- Study Area 3: Whitehorse Road, Nunawading: The RGZ is on the northern side of the road generally between Springvale Road and the City of Whitehorse municipal building, and then between Walker and Peel Streets
- Study Area 4: Burwood Highway, Burwood, Bennettswood, Burwood East & Vermont South: The RGZ is on both sides of the highway broadly between Elgar Road and Springvale Road. Specifically, the study area includes:
 - Burwood: southern side between Cromwell Street and McIntyre Street/extension of Elgar Road
 - Bennettswood: southern side between 200 Burwood Highway and Station Street
 - Burwood: both sides of the highway between Station Street and Middleborough Road
 - Burwood East: northern side of the highway between Oakham Avenue and Blackburn Road, and the southern side of the highway between Burwood Heights Shopping Centre and Witchwood Crescent. This also includes both sides the highway between Blackburn Road and Sevenoaks Road
 - Vermont South: northern side of the highway between Springvale Road and Livingstone Road and the southern side of the highway between Springvale Road and Hanover Road

Study Area Map - City of Whitehorse



1.3 Strategic and Statutory Context

1.3.1 Planning Policy Framework

Many aspects of the PPF provide overarching strategic context and support for this project. The following objectives and strategies are particularly relevant to the strategic urban design and housing outcomes intended for the Study Areas of this project.

11.06-2 Housing Choice

Objective: To provide housing choice close to jobs and services.

Strategies:

- Facilitate increased housing in the established areas to create a city of 20 minute neighbourhoods close to existing services, jobs and public transport.
- Support housing growth and diversity in defined housing change areas and redevelopment sites.
- Allow for a spectrum of minimal, incremental and high change residential areas that balance the need to protect valued areas with the need to ensure choice and growth in housing.
- Provide certainty about the scale of growth in the suburbs by prescribing appropriate height and site coverage provisions for different areas.

11.06-4 Place and Identity

Objective: To create a distinctive and liveable city with quality design and amenity.

Strategy: Strengthen Melbourne's network of boulevards and create new boulevards in urban-growth areas and selected existing road corridors across Melbourne.

The PPF (at Clause 15 Built Environment and Heritage) places emphasis on the importance and role of a quality built environment in supporting social, cultural, economic and environmental well being of communities. It states that planning should achieve high quality urban design and architecture that:

- contributes positively to local urban character and sense of place,
- reflects the particular characteristics of the community,
- enhances liveability, diversity, amenity and safety of the public realm,
- promotes activeness of cities within broader strategic contexts, and
- minimises detrimental impact on neighbouring properties.

15.01-1 Urban Design

Objective: To create urban environments that are safe, functional and provide good quality environments with a sense of place and cultural identity.

Strategies:

- Ensure transport corridors integrate land use planning, urban design and transport planning and are developed and managed with particular attention to urban design aspects.
- Encourage retention of existing vegetation or revegetation as part of subdivision and development proposals.

Approval of Amendment C160 to the Whitehorse Planning Scheme implemented the Council's Housing and Neighbourhood Character Strategy 2014. As noted in section 1.0 not all of the provisions proposed by the Council were approved by the Minister for Planning. Significantly, the height controls proposed as a result of the Housing Strategy and Neighbourhood Character Study were not included in the schedules to the Residential Growth zone as requested. It is noted that Neighbourhood Activity Centre Guidelines were also prepared in 2014, and complete the package of intended building heights in the City (outside Structure Plan areas).

The height controls implemented for the Neighbourhood Activity centres (commercial zones) included some up to 6 storeys with rear setbacks, while those in Burwood and Vermont South are two storeys.

1.3.2 Victoria Planning Provisions Changes since the introduction of Amendment C160

Since the introduction of the new residential zones in Whitehorse a number of changes have occurred within the Victoria Planning Provisions (VPPs), including the reformed residential zones (VC110 gazetted on 27 March 2017), Better Apartments Design Standards (VC136), and the Urban Design Guidelines for Victoria and Apartment Design Guidelines (VC139).

The implications of these changes need to be understood in order to determine the most appropriate approach to new built form guidelines for the Residential Growth Zones along the corridors of Whitehorse.

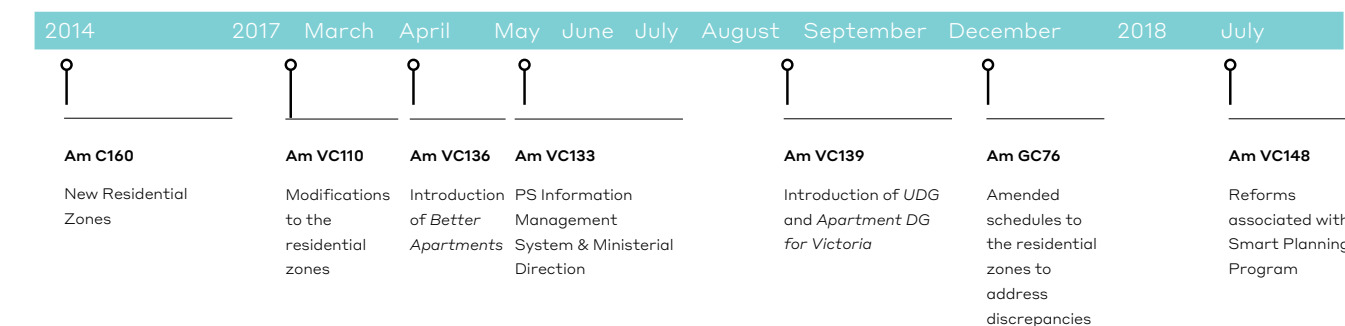
In addition, VC110 introduced mandatory minimum garden area requirements and mandatory height controls within the Neighbourhood Residential and General Residential Zones (NRZ and GRZ). The Residential Growth Zone (RGZ) is the only residential zone that does not contain a minimum garden area requirement. This is clearly in recognition of the purpose of the zone.

Clause 58 – Apartment Development

Amendment VC136 (gazetted on 13 April 2017) introduced the Clause 58 Apartment Development to all planning schemes, to manage residential development over 4 storeys. The new Clause includes standards associated with siting and building arrangement (building setback, communal open space, solar access, landscaping and building entry and circulation), building performance (noise, energy efficiency, waste and recycling, integrated water and stormwater management) and dwelling amenity (functional layout, room depth, windows, storage, natural ventilation, private open space and accessibility). This is the first time that any standards have been included

in the VPPs for buildings over 4 storeys, and this has fundamentally changed the way that these developments must be designed and assessed.

Developments of 4 storeys and under will continue to be assessed under the Clause 55 ResCode provisions, which will result in a different built form, particularity in relation to setbacks. The differing requirements depending upon the height of a building will potentially impact on development decisions relating to yield, however this would be quite site specific.



03 Planning Scheme Amendment Timeline

Urban Design Guidelines and Apartment Design Guidelines for Victoria

Amendment VC139 (gazetted on 29 August 2017) referenced the Urban Design Guidelines (UDG) and Apartment Design Guidelines for Victoria (ADG). The ADG provides assistance and additional explanation of the Clause 58 Apartment Development standards (in the Interpreting the Standards section) and guidance on matters to consider to meet the objectives of the apartment standards (in the Design Guidance section).

The ADG are also intended to support greater consistency in the planning permit assessment phase of an apartment development. The ADG are complemented by the Urban Design Guidelines which provide best practice knowledge and advice to inform the design of buildings in relation to the function and amenity of the public realm.

The culmination of the above changes warrants a review of the development outcomes arising within the Residential Growth Zone, and more fundamentally, the application of controls that promote housing change.

1.3.3 Local Policy Framework

Municipal Strategic Statement (MSS)

The MSS contains numerous references to neighbourhood character of the residential areas, the importance of housing, environmental sustainability and trees to the Whitehorse environment.

This section of the MSS is substantially drawn from the Housing and Neighbourhood Character Strategy 2014. The Clause includes a Housing Framework Plan that identifies Substantial, Natural and Limited Change areas throughout all residential areas. It also designates the various categories of Neighbourhood Activity Centres.

Objectives for all the three change areas are included in the strategy, including other key housing principles relating to sustainability, affordability, the mix of housing sought and interface with the neighbourhood character objectives of the scheme.

Clause 21.06, Housing, recognises the principles to meet the broad housing vision including:

- Encourage housing that supports preferred neighbourhood character objectives and urban design aspirations for the City.
- Promote housing growth and diversity in locations within walking distance of public transport and local services such as shops,

parks and education.

- Ensure housing in substantial change areas is designed to achieve and enhance sense of place and identity, and facilitate neighbourhood participation.

In Substantial Change areas the strategy supports increased densities, facilitating a new preferred character for these areas over time and providing for space for planting to improve the amenity and liveability of dwellings.

Clause 21.05, Environment, emphasises the Council's strategy related to the natural environment and environmental sustainability, including objectives:

- To develop main thoroughfares as attractive boulevards with improved advertising signage, landscaping and building design.
- To achieve best practice in addressing the principles of environmentally sustainable development.

Strategies relate to providing adequate open space and landscaping in development, requiring planting of upper canopy trees, and high quality development compatible with the character and appearance of the area.

Residential Development Policy (Clause 22.03)

This Policy was updated with the introduction of Amendment C160 to include reference to the Housing Change map and provide clear strategic direction regarding the different change areas. The Policy states for Substantial Change areas that townhouses, units, flats and apartments are encouraged. It is policy to:

- Locate new development in the form of flats and apartments in Substantial Change Areas only.
- Provide a range of dwelling types, sizes and tenures, including affordable housing, in larger developments.
- Ensure buildings interfacing sensitive areas and uses have a scale and massing appropriate to the character and scale of their context.
- Create a new, higher density urban character in areas located away from sensitive interfaces.
- Prioritise works to improve the appearance, function and safety of the public realm in locations subject to the greatest increase in residential density.
- Ensure new development provides space for planting, communal spaces and rooftop gardens to improve the amenity and liveability of dwellings.

- Ensure adequate infrastructure is in place to support substantial change areas.

Tree Conservation Policy (Clause 22.04)

The Council's long-standing Tree Preservation policy was updated with the introduction of Amendment C160. It reflects the importance of tree conservation set out in the MSS, and establishes objectives and requirements relating to protection of the existing tree canopy and the regeneration of tall trees through the provision of adequate open space and landscaping in new development. The policy applies to all land in the City.

The policy contains performance standards relating to tree regeneration that state new trees should be sited to be separated from a building by 3 metres, and within the SLO (which applies to the RGZ land) with a minimum of 50m² of open ground with a minimum dimension of 5 metres.

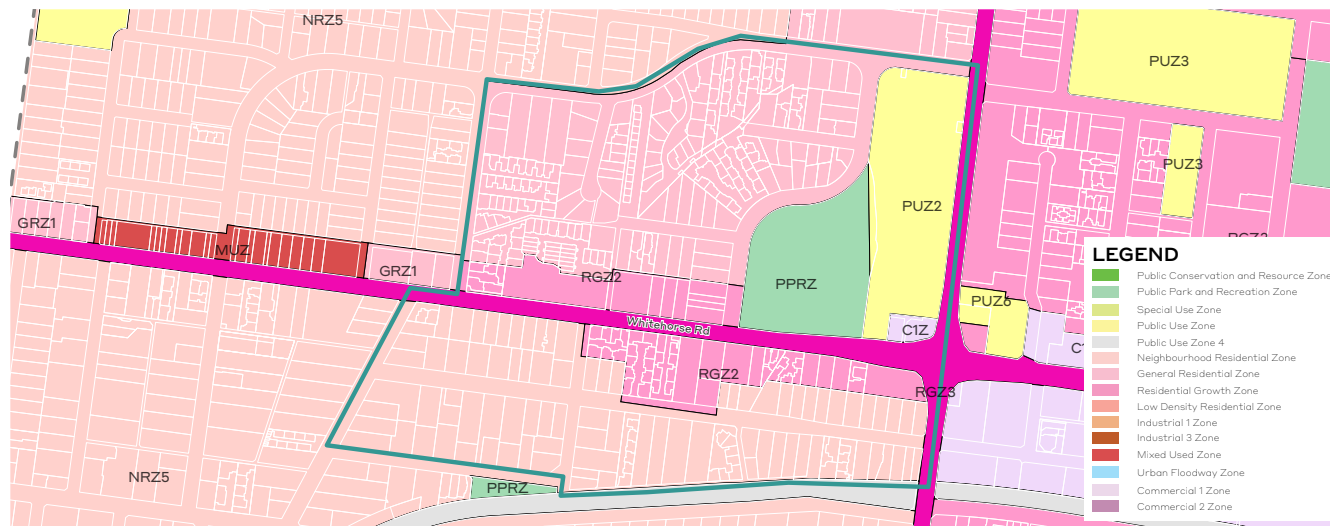
It is advised that whilst this provides for tree planting, this dimension is insufficient to provide for large canopy trees as required by Clause 58 Standard D10.

1.3.4 Residential Zones

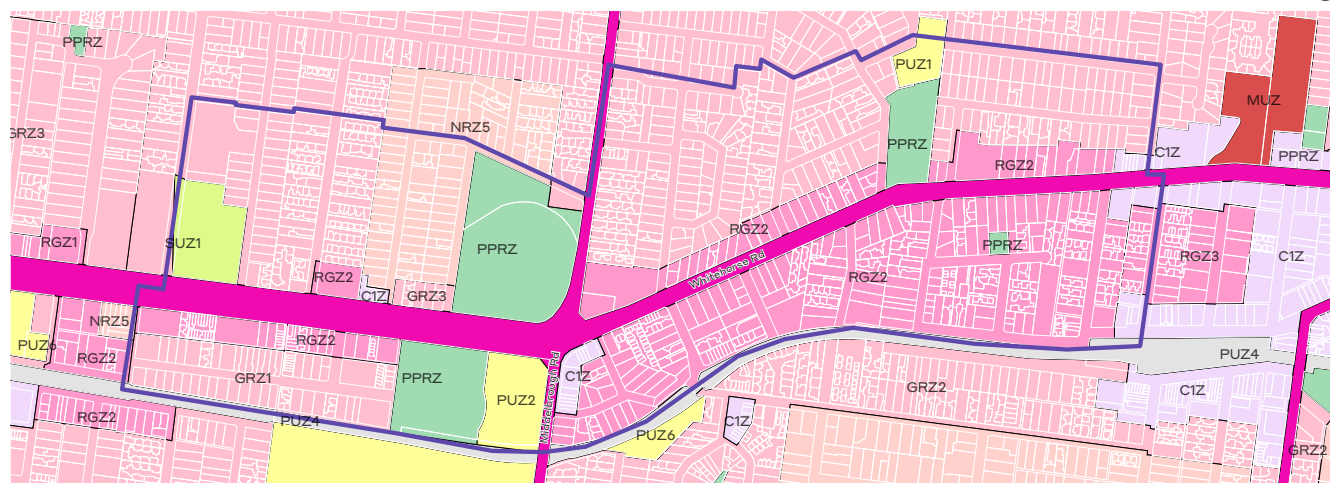
Residential Growth Zone (RGZ)

The purpose of the zone, as amended by Amendment VC110, is:

- To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.
- To provide housing at increased densities in buildings up to and including four storey buildings.
- To encourage a diversity of housing types in locations offering good access to services and transport including activity centres and town centres.
- To encourage a scale of development that provides a transition between areas of more intensive use and development and other residential areas.
- To ensure residential development achieves design objectives specified in a schedule to this zone.
- To allow educational, recreational, religious, community and a limited range of other non-residential uses to serve local community needs in appropriate locations.



04 Planning Zones Map - Study Area 01



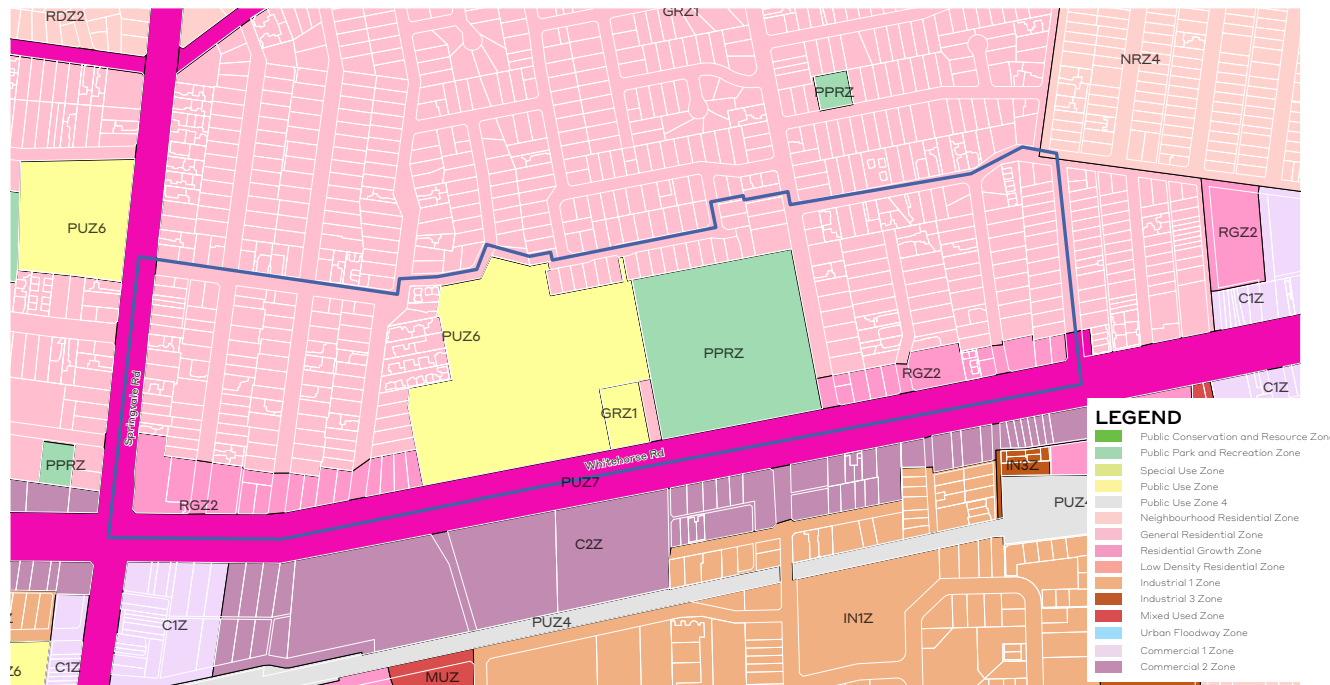
05 Planning Zones Map - Study Area 02

Implementation of the Planning Policy Framework including the Local Planning Policy Framework is clearly intended to promote growth within the RGZ areas. Changes to the zone purpose now provide for the inclusion of design objectives for the RGZ in a schedule. The zone includes a discretionary maximum height of 13.5 metres (4 storeys), with no mandatory maximum height. The accompanying Practice Note on the Residential Growth Zone states that Councils can introduce an alternative mandatory maximum in the schedule to the zone, **but it must be at least 13.5 metres**.

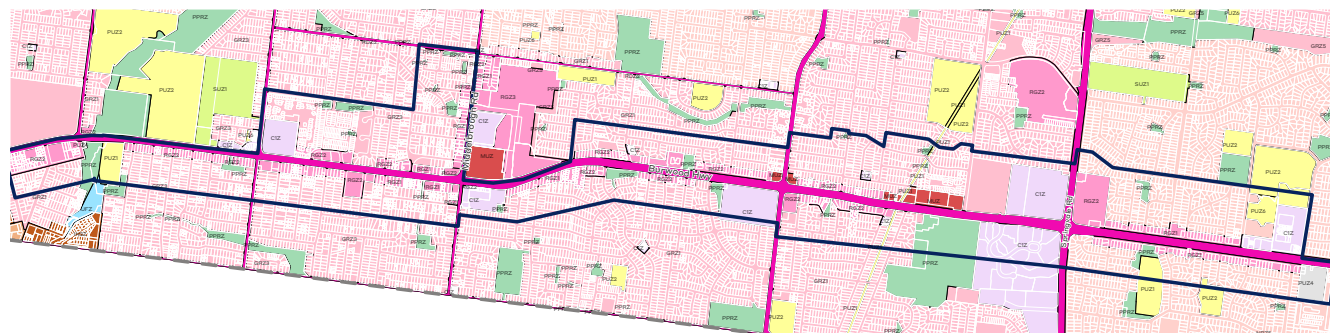
Neighbourhood Residential Zone (NRZ)

The purpose of the Neighbourhood Residential Zone (NRZ) is to recognise areas of predominantly single and double storey residential development and to ensure new development respects the identified neighbourhood character or landscape characteristics. The zone applies a mandatory maximum height of 9 metres, and also requires a minimum garden area of 25-35% of the site dependent on site size.

The NRZ applies to residential land across the municipality, and is particularly predominant in suburbs including Mont Albert, Blackburn, Mitcham, Burwood East and Vermont South.



06 Planning Zones Map - Study Area 03



07 Planning Zones Map - Study Area 04

General Residential Zone (GRZ)

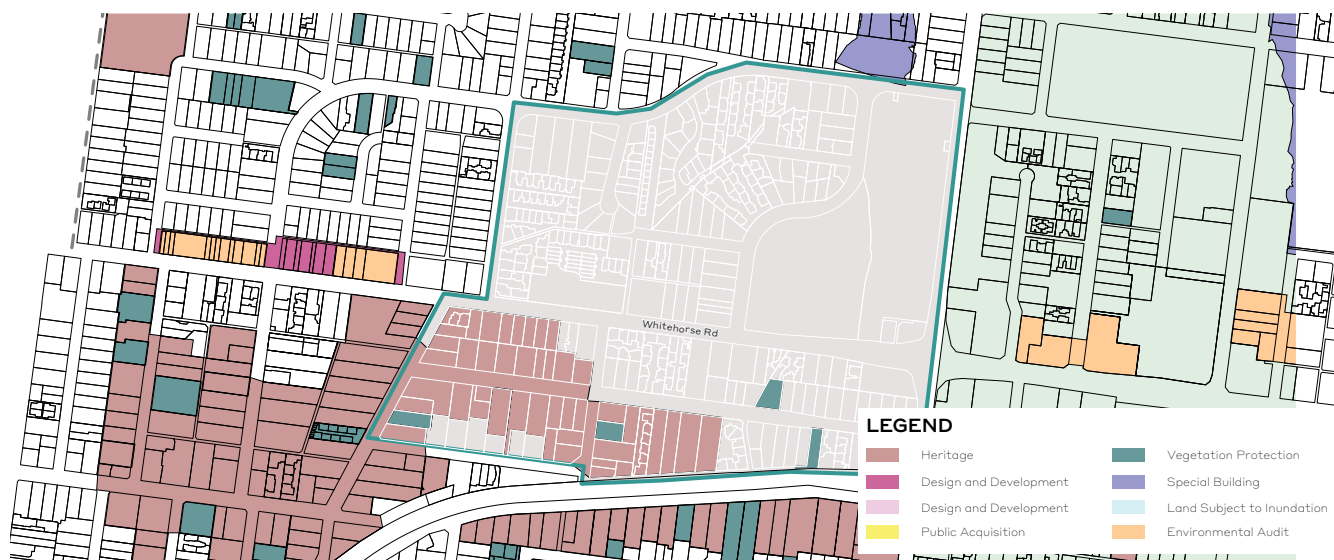
The General Residential Zone (GRZ) encourages development that respects the neighbourhood character of the area, as well as encouraging a diversity of housing typologies and growth in locations with good provision of public transport and other services. The GRZ applies to residential land across the municipality, and is particularly predominant in suburbs including Box Hill North, Blackburn North, Forest Hill and Burwood.

The GRZ contains maximum building height requirements for dwellings, with a height limit of 11m or 3 storeys, unless otherwise specified in a Schedule to the zone. It also requires a minimum garden area of 25-35% of the site dependent on site size.

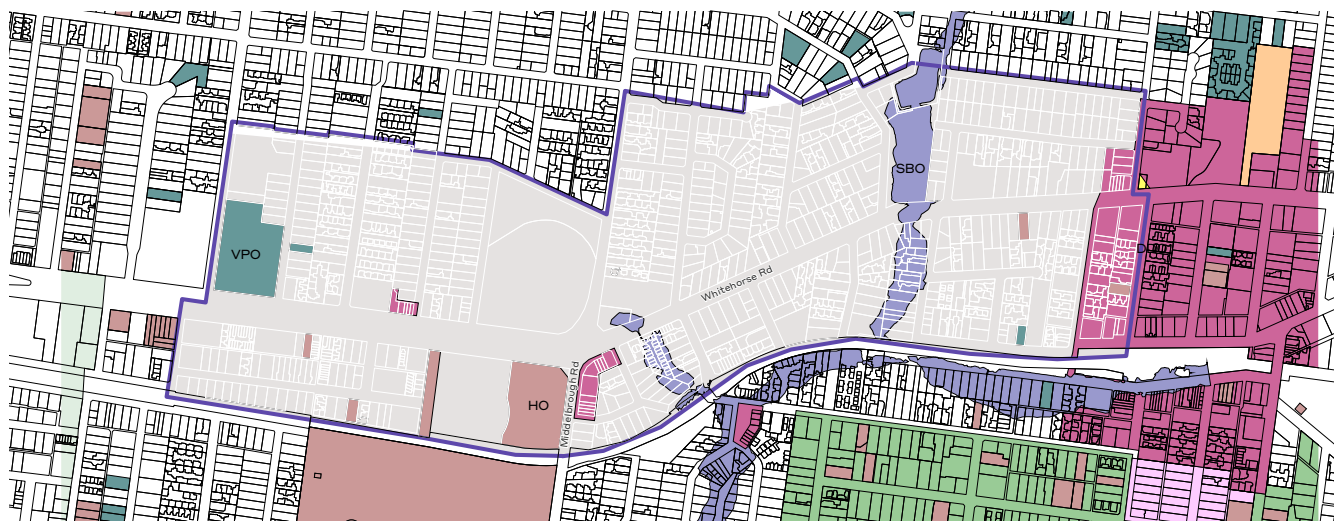
1.3.4 Overlays

Neighbourhood Activity Centres (Design and Development Overlay- Schedule 4) (DDO4)

Introduced by Amendment C162 in 2015, Design and Development Overlay – Schedule 4 (DDO4) designates a number of Neighbourhood Activity Centres (NACs) throughout the municipality. The NACs range in size from small, medium to large, with larger NACs located on wider main roads. The NACs are categorised based on their location,



08 Planning Overlays Map - Study Area 01



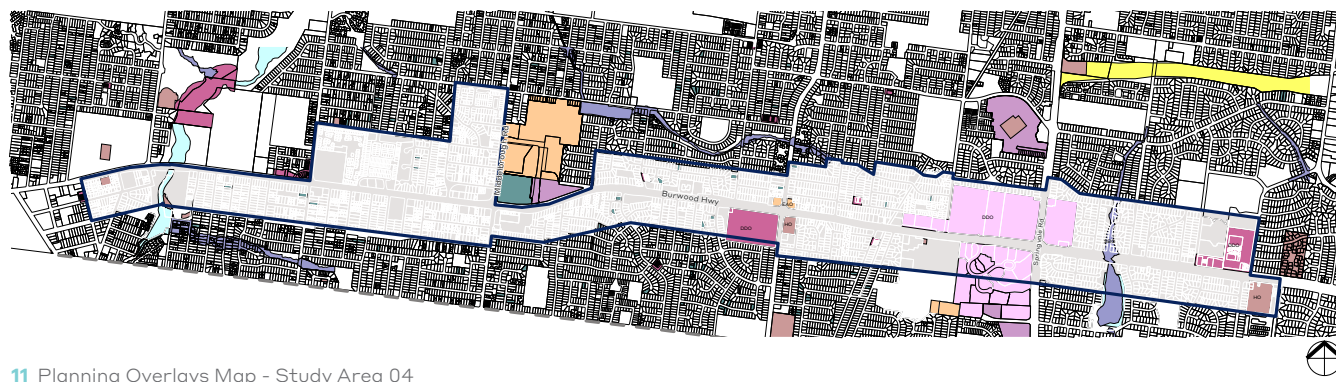
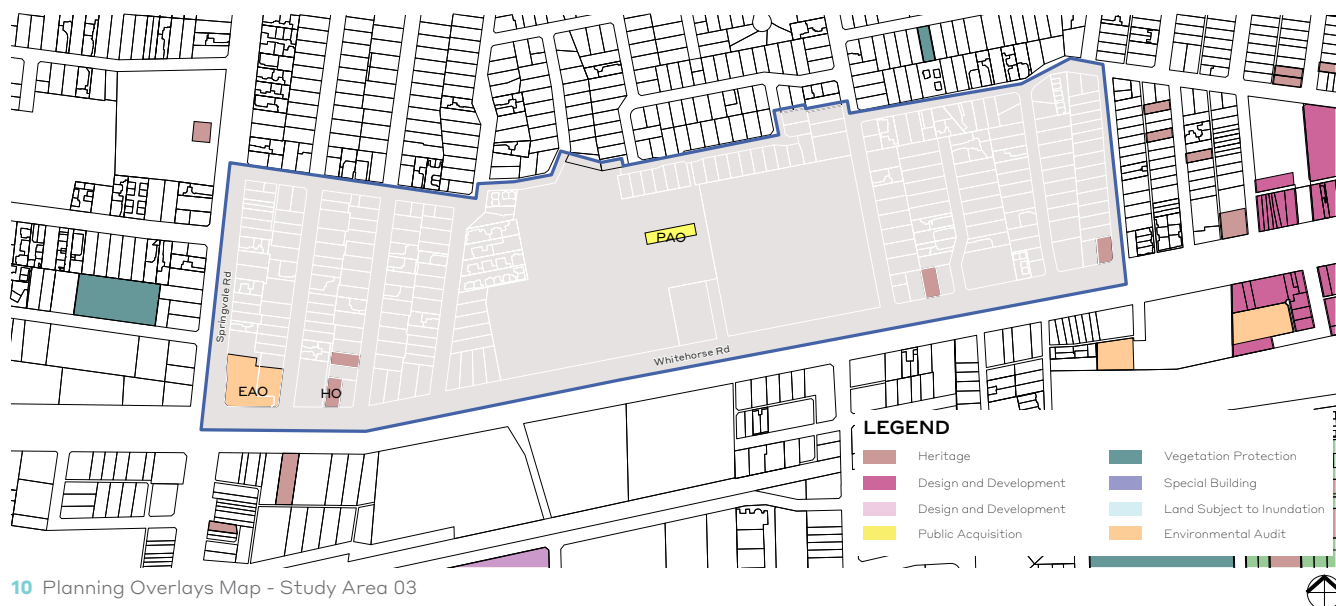
09 Planning Overlays Map - Study Area 02

accessibility, size and retail and service role, and this impacts on their ability to accommodate residential use and higher built forms.

DDO4 aims to ensure that new development is designed to facilitate lively, attractive and safe local activity centres, as well as ensuring that new developments incorporate high quality and visually interesting design details.

Preferred maximum building heights and setbacks are outlined as part of this DDO. Small to medium NACs have preferred maximum height limits between 11 metres (3 storeys) and 18 metres (5 storeys), dropping to 7.5 metres (2 storeys) where a boundary adjoins a residential zone. Large NACs have a preferred maximum building height of 21.5 metres (6 storeys). Preferred setbacks vary across all NACs depending on building height, and land use of adjacent properties.

It should be noted that Activity Centres with adopted Structure Plans and Urban Design Frameworks (UDF's) already have existing guidance on built form, and the outcomes of this study are not intended to apply to those areas.



Blackburn Neighbourhood Activity Centre and Megamile (West) Major Activity Centre (Design and Development Overlay- Schedule 8) (DDO8)

Introduced in 2013 by Amendment C143, the Design and Development Overlay – Schedule 8 (DDO8) outlines the design requirements for the Blackburn Neighbourhood Activity Centre and the Megamile West Major Activity Centre. DDO8 aims to ensure that development is consistent with both the Megamile (west) and Blackburn Activity Centres Urban Design Framework 2010 and Clause 22.09 Blackburn and Megamile (west) Activity Centres. The activity centre is broken into a number of precincts with different building height and setback requirements.

DDO8 outlines the preferred maximum building heights and street setbacks for each precinct within the activity centre. Blackburn Station Village and other identified residential interfaces are designated the lowest preferred building heights at 9-10 and 9 metres respectively. Preferred building heights of up to 15 metres are applied to areas within the Blackburn Activity Centre (generally between Whitehorse Road and Railway Drive), and at key sites within the Megamile (fronting Whitehorse Road).

Preferred building front setbacks are generally consistent across the precincts, with a requirement ranging between 3-5 metres. However, some precincts require setbacks to be applied in accordance with ResCode standards.

Mitcham Neighbourhood Activity Centre (Design and Development Overlay- Schedule 5) (DDO5)

Introduced on a permanent basis by Am C94 on 24/11/2011 (with interim controls applying since 2009), Design and Development Overlay – Schedule 5 (DDO5) outlines the design requirements for the Mitcham Neighbourhood Activity Centre (NAC). DDO5 aims to ensure that the height of any new development is compatible with the existing character and future role of the Mitcham NAC. The Schedule also encourages a high standard of architectural design, as well as consideration to preserving access to sunlight in the public realm.

DDO5 outlines preferred maximum building heights for individual properties within the NAC. The maximum building heights range from 8m (2 storeys)-15m (4 storeys), with intention for the taller developments to be located adjacent to Whitehorse Road.

Tally Ho Activity Centre (Design and Development Overlay- Schedule 9) (DDO9)

Introduced in October of 2015, Amendment C110 aims to ensure future development reinforces a high quality built environment, contributes to the uniform character and is consistent with the Tally Ho Major Activity Centre Urban Design Framework 2007, Landscape Guidelines 2013 and Clause 22.08. DDO9 outlines the design objectives for the Tally Ho Activity Centre including but not limited to; preferred maximum heights, building interfaces, building setbacks and landscaping.

Significant Landscape Overlay

Amendment C191 introduced a municipal wide Significant Landscape Overlay (SLO9) on an interim basis until 31 December 2018. This Amendment implements the recommendations of the Municipal Wide Tree Study Options and Recommendations Report June 2016 and Whitehorse Neighbourhood Character Study, April 2014.

The Neighbourhood Character Study states that “vegetation character is generally the most significant determinant of neighbourhood character” in the city, whilst the Housing Strategy (2014) aims to manage the significant population growth and change that is anticipated over the next 20 years. The community engagement undertaken in late 2016 for the preparation of the new Whitehorse Council Plan and Municipal Health and Wellbeing Plan showed that residents across all age groups highly value trees and the leafiness across the municipality. Additionally, the community identified that maintaining and protecting trees through increased development controls is a key priority for Council.

The application of a SLO requires a planning permit to remove, destroy or lop a tree over 5m and circumference of 1m. The SLO also triggers the need for a planning permit for building and works within 4m of any protected trees.

The interim SLO controls are implemented while permanent SLO controls are concurrently pursued by the Council.

1.4 Study Area Analysis



12 Existing Whitehorse development

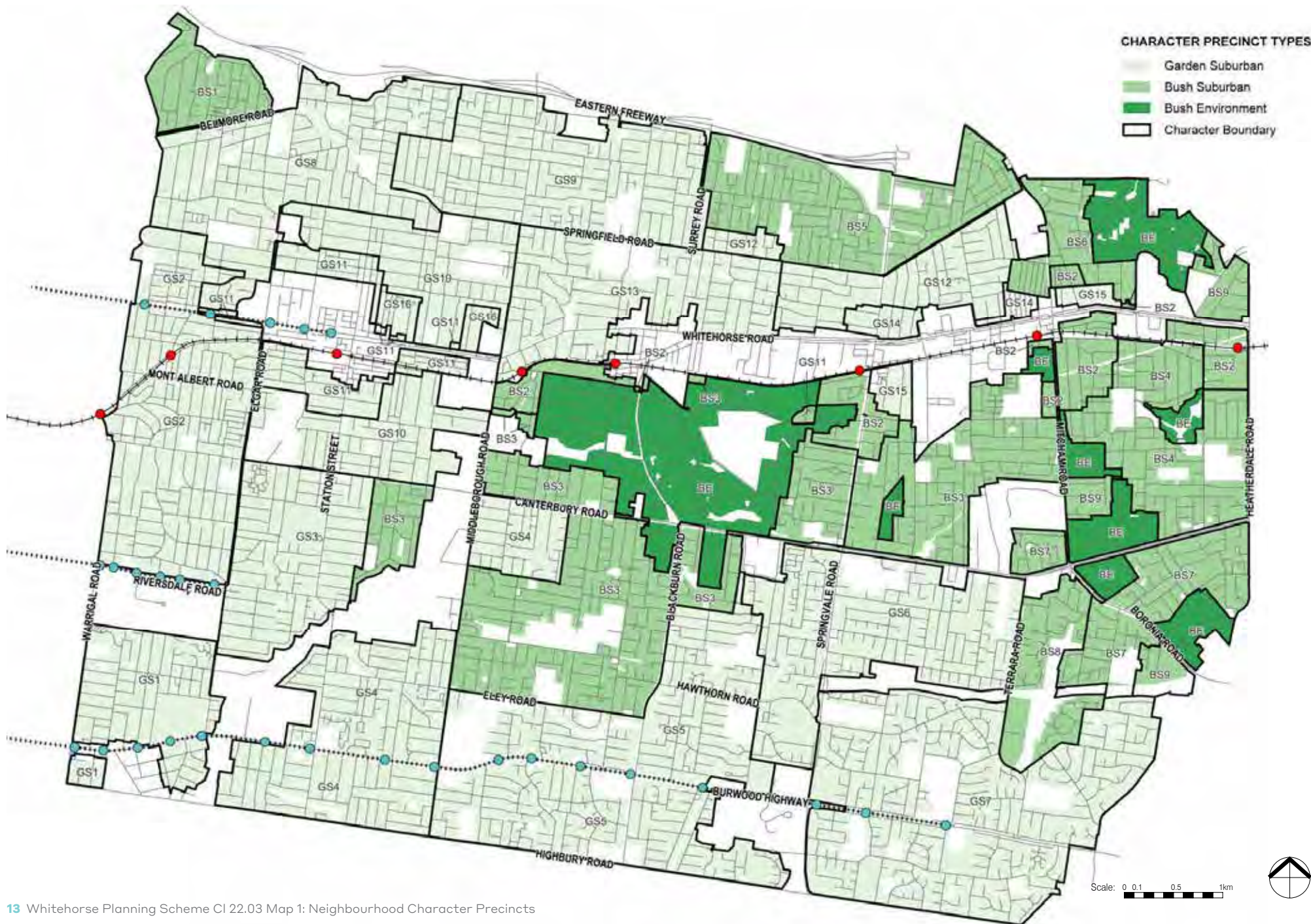
1.4.1 Existing Character

Whitehorse's Housing and Neighbourhood Character Study (2014) sets a hierarchy of preferred locations for growth- substantial change, natural change and minimal change – and preferred objectives and responses to ensure that the desired housing outcome is achieved. The content of these documents has now been reviewed to ensure that they are still relevant and provide appropriate direction for future housing development.

The Neighbourhood Character Types are classified in three ways:

- Garden Suburban Areas
- Bush Suburban Areas; and
- Bush Environment Areas.

All residentially zoned land within and adjacent to the Residential Growth zone (within the defined study areas) is within the Garden Suburban character types, other than a small portion of residential land south of Study Area 2 which is within Bush Suburban character type.



The existing characteristics of each of the Study Areas and the surrounding land, as noted in the Neighbourhood Character Study, with the map showing the scale of height controls within the broader study area, as shown in the map below. It is noted that this shows both Activity Centres and Neighbourhood Activity Centre heights (annotated where applicable).

The Study Areas are described in turn below.

Study Area 1

This part of the study area is within the Garden Suburban Precinct 2 which also covers the adjacent Neighbourhood Residential Zone and General Residential Zone and is described as:

- predominantly 1-2 storeys in height, mostly detached with semi-detached (units, terraces and townhouses) and attached (apartment) infill throughout including heights up to 4 storeys;
- front setbacks generally range from 5-8 metres with 1-3 metres side setbacks (from at least one boundary). Some new developments have reduced front and side setbacks, or have been built up to the boundary;
- front fences are low in height (up to 1.2 metres) and generally planted with shrubs, or constructed of brick or timber;

- road treatments are sealed, generally within upstanding kerbs and footpaths on both sides; and
- street trees are regularly planted along nature strips.

Study Area 2

This part of the study area is within the Garden Suburban Precinct 13 which also covers the adjacent General Residential Zone and is described as:

- predominantly 1-2 storeys in height, mostly detached with semi-detached (units, terraces and townhouses) and attached (apartments) infill throughout including heights up to 3 storeys closer to Whitehorse Road;
- front setbacks generally range from 5-8 metres with 1-3 metres side setbacks (from at least one boundary). Some new developments have reduced front and side setbacks (3-5 metres to the street) and 0-1 metres to the side boundary;
- front fences are non-existent, planted with vegetation or low in height (up to 1.2 metres), and usually constructed of brick or timber;

- road treatments are sealed, generally within upstanding kerbs and footpaths on both sides; and
- street trees are regularly planted with mixed species and sizes.

Study Area 3

This part of the study area is within the Garden Suburban Precinct 12 and 14 covers the adjacent General Residential Zone and is described as:

- predominantly 1-2 storeys in height, mostly detached with semi-detached infill (units) with an interface with Nunawading/ Megamile Major Activity Centre;
- front setbacks generally range from 3-8 metres with 1-3 metres from both side boundaries;
- front fencing is mixed, usually low to average height (up to 1.2 metres) fencing with some open frontages and side fences are forward of dwellings;
- road treatments are sealed, generally within upstanding kerbs and footpaths on both sides; and
- street trees are regularly planted with mixed species and sizes.

Study Area 4

This part of the study area is within the Garden Suburban Precinct 1, 4, 5 and 7 covers the adjacent General Residential Zone and is described as:

- GS1:
 - predominantly 1-2 storeys in height, mostly detached with semi-detached infill (units and townhouses);
 - front setbacks generally range from 5-6 metres with 1-3 metres usually from both side boundaries;
 - front fences are generally open or low in height (up to 1.2 metres) with side fences forward of the dwelling. Fences are constructed of materials appropriate to the dwelling;
 - road treatments are sealed, generally within upstanding kerbs and footpaths on both sides. Some recently developed areas consist of roll-over kerbs with or without footpaths; and
 - street trees are regularly planted with mixed species and sizes.
- GS4:
 - predominantly 1-2 storeys in height, detached with semi-detached infill (units);
 - front setbacks generally range from 3-7 metres with 1-2 metres usually from both side boundaries. Some new developments have smaller front and side setbacks;
 - front fences are non-existent or low (up to 1.2 metres), and construction of brick or timber pickets;
 - road treatments are sealed, generally within upstanding kerbs and footpaths on both sides. Newer subdivisions have roll-over kerbs; and
 - street trees are regularly planted with mixed species and sizes.
- GS5:
 - predominantly single storey and standalone with interfaces with vegetated open space and Burwood Heights and Tally Ho Major Activity Centres;
 - front setbacks are approximately 5 metres, with at least 1 metre setbacks from both side boundaries;
 - front fences are non-existent or low (up to 0.8 metres) and generally constructed of brick;
 - road treatments are sealed, generally within upstanding kerbs and footpaths on both sides, except in new courts where rollover kerbs are used; and
 - street trees are regularly planted with mixed species and sizes.
- GS7:
 - predominantly 1-2 storeys in height, detached with semi-detached infill (units);
 - front setbacks generally range from 3-7 metres with 1-2 metres usually from both side boundaries. Some new developments have smaller front and side setbacks;
 - front fences are non-existent or planted with vegetation. Where front fencing occurs, it is generally low (up to 1.2 metres) and constructed of materials suited to the dwelling;
 - road treatments are sealed, generally within upstanding kerbs and footpaths on both sides. Newer subdivisions have roll-over kerbs; and
 - street trees are regularly planted with mixed species and sizes.

Neighbourhood Activity Centre & Neighbourhood Character - Existing Maximum Heights Within Study Area



1.4.2 Desired Future Character

Whitehorse's Neighbourhood Character Study 2014, provides preferred future character statements for all character areas in the City. Those relevant to the Study Areas for this project are shown below. It is noted that the statements include specific reference to areas of substantial change and the outcome sought for these areas.

Study Area 1

Areas with good access to trams and train stations will accommodate more dwellings with slightly more compact siting than the remaining residential areas, but with the continued incorporation of trees and gardens, and high quality, responsive design.

The broader area is a combination of heritage and older style dwellings and well designed contemporary buildings to form the key characteristics of this area.

The vegetated character of the area will be maintained by retaining consistent front setbacks that allow for trees and shrubs.

Buildings will be set back from side boundaries to provide a visual separation reflecting the typical rhythm of the streetscapes. Low or open style front fences will allow private gardens to contribute to the leafy character of the area.

Study Area 2

Areas with good access to the train stations at Laburnum and Blackburn (Substantial Change) will accommodate more dwellings with slightly more compact siting than the remaining residential areas, but with space for large trees and gardens.

The broader area will retain its classic garden suburban characteristics of low set, pitched roof dwellings set in spacious garden settings, with a backdrop of large native and exotic trees.

The established pattern of regular front and side setbacks from both side boundaries will be maintained, allowing sufficient space for planting and growth of new vegetation.

Infill development including unit developments will be common, however new buildings and additions will be set back at upper levels to minimise dominance in the streetscape.

Low or open style front fences will provide a sense of openness along the streetscape, and allow views into front gardens and lawn areas.

Study Area 3

Areas in proximity to train stations will accommodate more dwellings with slightly more compact siting than the remaining residential areas, but with space for large trees and gardens.

This precinct is adjacent to the Nunawading Megamile Major Activity Centre, and the Mitcham Neighbourhood Activity Centre.

The broader area will retain its classic garden suburban characteristics of low set, pitched roof dwellings set in spacious garden settings, with a backdrop of large native and exotic trees and tree-lined streets.

As contemporary infill development becomes more common, including medium density and low scale apartments buildings, new buildings and additions will be set back at upper levels to minimise dominance in the streetscape and maintain the existing rhythm of front and side setbacks from one side boundary. They will also allow sufficient space for the planting and growth of new vegetation, including trees.

Low or open style front fences will contribute to a sense of openness along the streetscape, allowing for views into private gardens.

Study Area 4

Along the tram corridor on Burwood Highway (Substantial Change) infill development including medium density housing and apartment developments will be common, however new buildings and additions will be set back at upper levels to minimise dominance in the streetscape and impact on nearby standard residential areas while retaining space for landscaping including trees.

This area is also adjacent to Burwood Heights Structure Plan and Tally Ho Major Activity Centre Urban Design Framework.

Areas with good access to trams and shops will accommodate more dwellings, including well designed medium density housing, with slightly more compact siting than the remaining residential areas, but with space for large trees and gardens.

The broader area will retain its classic garden suburban characteristics of modest, pitched roof dwellings in formal garden settings. The defined pattern of regular front setbacks and side setbacks from both side boundaries will be maintained, allowing sufficient space for planting and growth of new vegetation. Low or open style front fences will provide a sense of openness along the streetscape, and allow views into front gardens.

The areas at the eastern extent of the study area, in Vermont South east of Springvale Road, present a different interface scenario than the remainder. These RGZ areas were originally identified in the Housing Strategy for a maximum 3 storey built form, and directly abut a Neighbourhood Residential zone with a maximum height of 9 metres or two storeys. In this locality, the differing interface justifies a different response in the adjoining RGZ areas.

Open Space Interfaces

The Residential Corridors along Whitehorse Road and Burwood Highway include public spaces along the main corridors including:

- Study Area 1: Kingsley Gardens
- Study Area 2: Box Hill City Oval, Whitehorse Reserve & Elmhurst Basin Reserve
- Study Area 3: Walker Park
- Study Area 4: Local History Park, Newbiggin Street Reserve, Benwerrin Kindergarten, Clyden Ct- Witchwood Crescent Playground, Travers Crescent Reserve, East Burwood Reserve, Billabong Park

1.5 Case Study Examples

A review has been undertaken to assess controls that other metropolitan Councils have introduced to resolve built form issues within Residential Growth zones or at the interface of high density development and other residential zones. Both Darebin and Moreland City Council have included mandatory provisions through Design and Development Overlays addressing:

- Overall building height
- Street- wall heights (in relation to heritage streetscapes)
- Setbacks from the front boundary
- Building design and lot width

It is useful in considering these controls, to understand the context within which they were introduced and the issues considered by the independent panel (Planning Panels Victoria) in assessing the suitability of the controls. The Planning Panel reports for Amendment C159 (Moreland) and Amendment C136 (Darebin) have provided commentary on these issues which have been used in this analysis. It is noted that these Amendments were both introduced prior to the most recent amendments to the residential zones through Amendment VC110, which introduced the ability to specify maximum heights, but not less than 13.5m (4 storeys).

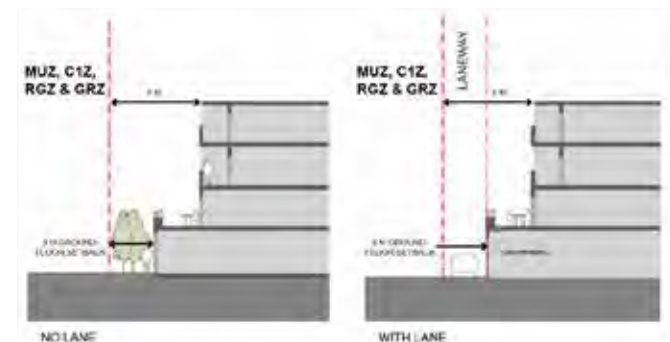
Moreland Neighbourhood Centres

Amendment C159 to the Moreland Planning Scheme introduced consistent built form controls for the city's 11 neighbourhood activity centres in December 2017. The controls were applied through a new Design and Development overlay schedule 24, and apply to land within the Commercial, Mixed Use and Residential growth zones.

The design parameters are discretionary with the exception of where they are specified as mandatory as follows:

- Height controls (up to 13.5 metres) with 8 out of the 10 precincts mandatory;
- Site dimension requirements including a typical width of 12 metres, and depth of 35 metres (development site of a minimum of 420m²);
- Front setbacks of 3 metres to protect residential amenity at ground;
- Side setbacks, including a minimum of 4.5 metres where there is a primary outlook (living/ balcony) and as little as 2 metres for a secondary outlook (bedroom) and abutting the General or Neighbourhood Residential Zone must comply with the setback requirements of Rescode (Standard A10 or B17);

- Scaled rear setbacks (based on overall height) of:
 - 3 metres (4 metres in height) to enable rear access where none is provided,
 - 6 metres (in excess of 4 metres in height), and
 - 8.6 metres (in excess of 10.5 metres adjacent to a property in the Neighbourhood Residential Zone); and
- Design requirements regarding active frontages, awnings, building articulation, car parking and vehicle entry, site services, and landscaping.



14 Rear Setbacks (Moreland Planning Scheme - DDO Schedule 24)

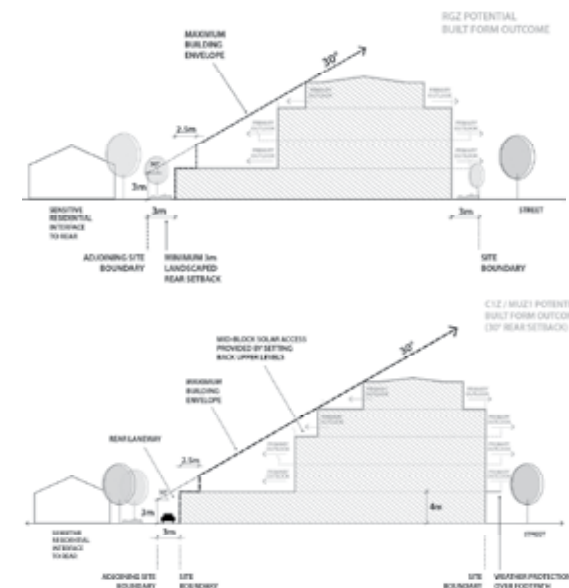
Darebin Amendment C136 – MSS review and corridor plans for St Georges Road and Plenty Road

Amendment C136 to the Darebin Planning Scheme introduced mandatory height controls to areas along the St Georges Road corridor and Plenty Road, West Preston, in September 2016. The controls affect land within the Mixed Use Zone, Commercial 1 Zone and Residential Growth Zone.

The design requirements include:

- Height controls ranging from 3 storeys to 6 storeys (mandatory);
- Minimum frontage widths in the Residential Growth Zone should have a minimum frontage width of 20 metres (where land is consolidated);
- A requirement for the upper levels of development to be setback from the front and side boundaries a minimum distance to create a visual delineation and more human scale to the development interface;
- Front setback of 3 metres, and additional setbacks for higher storeys to create visual separation between the lower levels and upper parts of the building;

- Scaled rear setbacks (based on overall height) of:
 - Ground floor: 3 metres including a laneway where applicable,
 - First floor: 5.5 metres including a laneway where applicable, and
 - Any other upper level must be setback from the boundary of the adjoining residential site so as to be contained within a 30 degree setback envelope (refer to adjacent Figure); and
- Design requirements regarding building design and access and parking, including objectives regarding limiting the amount and width of vehicle crossovers onto the main road.



15 Street edge and rear setbacks (Darebin Planning Scheme - DDO Schedule 16)

1.6 Review of Permit and Tribunal Decisions

In order to understand the issues arising in the Study Area through the permit approval process, including the types of applications being received, Council's considerations in determining applications and relevant Victorian Civil and Administrative Tribunal (VCAT) determinations, data was provided by the Council.

These are discussed in turn below.

Permit Data

An extensive review of permit decisions over the last five year period has been undertaken. The permit data, at the time of the review, revealed that of the permit decisions, seventeen (17) are within the broader study area which includes land within the Commercial 1 Zone and Mixed Use Zone, with a total of fourteen (14) applications within the Residential Growth Zone (RGZ). It is advised that of the total within the RGZ, two (2) are undetermined and one (1) was withdrawn.

Of the 14 permit applications analysed (5 permits issued by Council or a delegate of Council, 6 permits issued at the direction of VCAT, 1 withdrawn and 2 applications yet to be determined, at time of review, the following was found (and graphically represented on the adjacent page):

- The minimum front setback is 5 metres;

- The permitted height within the corridors averages 19 metres (6 storeys) and heights within the RGZ include 9 applications at 5 storeys in height and 2 applications at 6 storeys in height;
- The average site coverage is 60%;
- Side and rear setbacks generally comply with standard B17 (ResCode standard for side and rear setbacks);
- The majority of car parking is provided in basements (not at or above ground level);
- Direct access to main roads, managed by VicRoads, is generally not allowed;
- Only two (2) applications are affected by Clause 58 (Residential Apartments) and remain undetermined (one is being considered by VCAT at time of review);
- The frontage width is generally 50 metres;
- The site depth is generally 45 metres; and
- Site consolidation was demonstrated in half of the applications, consolidating a minimum of 2 sites.

Refer to Appendix A for further details.

VCAT Review

Of the permit decisions made within the study area (and within the Residential Growth Zone) there is a total of six (6) decisions made by the

VCAT and one (1) application where the VCAT decision has not been issued.

The VCAT decisions are consistent in that they acknowledge that there is clear identification of the Residential Growth Zone as being suitable for a higher form of residential development than what currently exists on the site and in the surrounding neighbourhood.

The study areas of both Whitehorse Road and Burwood Highway are consistent with the local planning policies in the planning scheme and are nominated for 'substantial change'.

This is also consistent with the Planning Policy Framework in the planning scheme that support increased housing in locations with good access to public transport, activity centres and other services.

Other decisions reviewed development and its interface with the adjacent Neighbourhood Residential Zone. It was determined that the use of articulation and change in materials at the lower levels assisted in the upper levels being considered as visually recessive without the need for a specific setback.

Lastly, landscaped setbacks were considered to be consistent with the character of the area and of importance.

1.7 Impact of Clause 58 Apartment Development Standards

Clause 58 Apartment Development Standards apply to residential buildings of 5 storeys and above. The full impact of the introduction of Clause 58 in early 2017 is still being assessed and understood. In Whitehorse only two planning applications utilising the provisions of Clause 58 have been received to date within the Study Area for this project. It is evident from an examination of these applications that the outcomes achieved vary significantly from those for similar developments prior to the introduction of the new Clause 58 provisions.

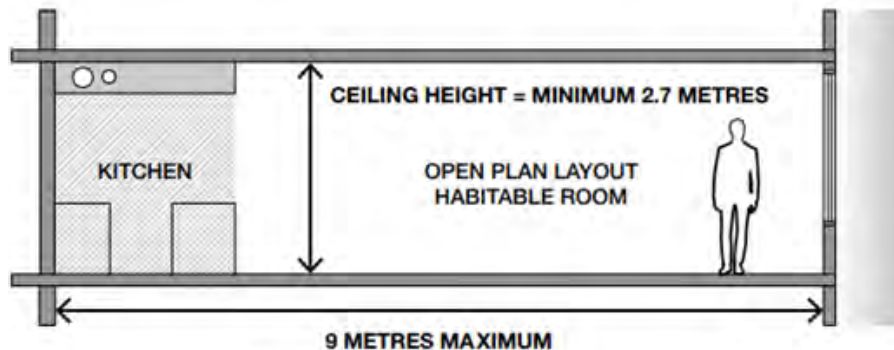
Key requirements in Clause 58 and their effects are discussed in turn below:

Internal Amenity and Requirement for Side Setbacks

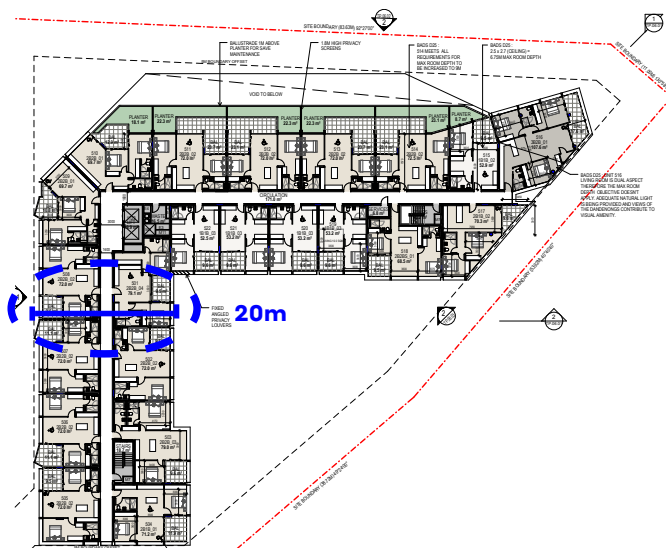
Clause 58, Standard D25 (Clause 58.07-2) relates to room depth, and the depth of an open plan, habitable room may not exceed 9 metres (refer to Figure 16). This requirement can result in a maximum floor plate width of 20 metres (9 metres + 9 metres + internal corridor, as depicted in Figure 17) without provision of a light court, or setback of some form to provide primary access to daylight to any habitable room.

As a result of the depth limitation, narrow sites cannot comply with this requirement, which is supported with the recommended introduction of 4.5 metre setbacks to side boundaries, which will require a separation distance of a minimum of 9 metres to avoid screening of opposing windows.

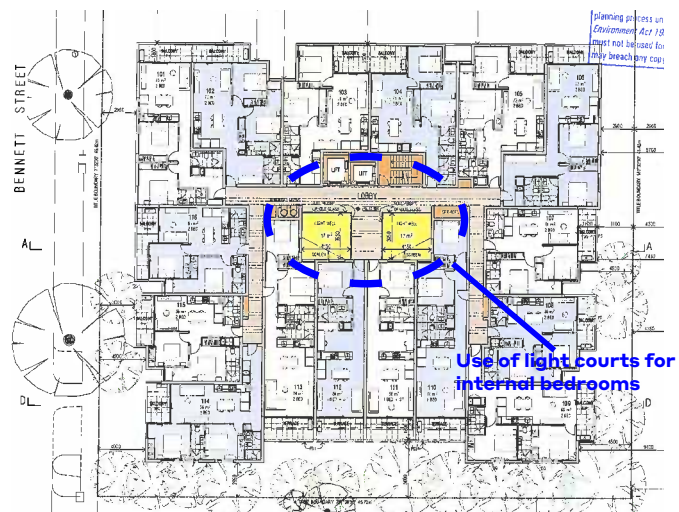
It is noted that development not exceeding 4 storeys will not be affected by Clause 58 and is instead assessed against Clause 54 and 55 (ResCode). The most significant change that has occurred in apartment building design (over 4 storeys) is the application of Clause 58. As demonstrated in Figure 17, it significantly reduces the floor plate depth in order to comply with the maximum depth requirement. This is in contrast to very wide floor plates with heavy reliance on light courts as depicted in Figure 18.



16 Extract from Apartment Design Guidelines for Victoria



17 WH/2017/646: 380 Burwood Highway, Burwood East- Level 5
Drawing No. TP.03.09 Rev B prepared by Hayball Architects



18 WH/2015/505: 254-258 Burwood Highway, Burwood – Level 1
Drawing No. TP-15 Revision A prepared by Ascui & Co Architects

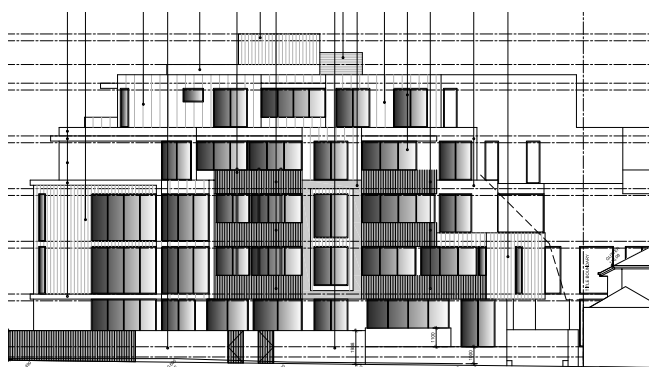
Rear Setbacks

Clause 58, includes Standard D25 (Clause 58.07-2) relates to room depth, and the depth of an open plan, habitable room may not exceed 9 metres. The standards do not specify any specific setback to side or rear boundaries.

As part of this review, a rear setback is critical to ensuring adequate greening, deep soil areas and landscaping of interfaces with an adjacent Neighbourhood Residential Zone and/or General Residential Zone and to alleviate overlooking.

The permit data analysis reveals that a number of applications which rise above 4-storeys in height, simply extrude any additional levels using the maximum required setback of Clause 55 (Standard B17) without any further setback (refer to Figure 19).

By contrast a single rear setback can assist in alleviating visual bulk as a stepped form can be more dominating than an element which is setback further and does not allow for significant buffer landscaping.



19 WH/2017/679: 362-364 Burwood Highway, Burwood – West
Elevation Drawing No. TP15B prepared by Papapetrou Rice
Architecture

Clause 58, Standard D10 (Clause 58.03-5) encourages development that maintains and enhances the surrounding environment and habitat for plants and animals. This requirement focuses on maximising deep soil areas for the planting of canopy trees on development sites.

Standard D10 Landscaping, provides the adjacent table, which refers to the minimum size (square metres) required for deep soil areas.

SITE AREA	DEEP SOIL AREAS	MINIMUM TREE PROVISION
750 - 1000 square metres	5% of site area (minimum dimension of 3 metres)	1 small tree (6-8 metres) per 30 square metres of deep soil
1001 - 1500 square metres	7.5% of site area (minimum dimension of 3 metres)	1 medium tree (8-12 metres) per 50 square metres of deep soil or 1 large tree per 90 square metres of deep soil
1501 - 2500 square metres	10% of site area (minimum dimension of 6 metres)	1 large tree (at least 12 metres) per 90 square metres of deep soil or 2 medium trees per 90 square metres of deep soil
>2500 square metres	15% of site area (minimum dimension of 6 metres)	1 large tree (at least 12 metres) per 90 square metres of deep soil or 2 medium trees per 90 square metres of deep soil

NOTE: Where an existing canopy tree over 8 metres can be retained on a lot greater than 1000 square metres without damage during the construction period, the minimum deep soil requirement is 7% of the site area.

1.8 Emerging Issues

The analysis as outlined within the remainder of Chapter 1 above indicates:

- Trees and other vegetation provide an important character context for all Whitehorse residential areas;
- Canopy trees can provide a successful visual screen between apartment development and adjoining lower scale residential areas. The provision of a large rear setback that can accommodate deep soil planting as envisaged by the Clause 58 requirements, for large canopy trees should be explored;
- Case study examples demonstrate that mandatory height controls have been implemented into the Darebin and Moreland planning schemes for higher density development. However, having reviewed a number of built form amendments throughout the State there is no evidence where a planning scheme amendment has allowed setbacks greater than those specified in Clause 55 through the schedule to the zone.
- Ground Floor interface:
 - Lack of setback to the street results in poor opportunities for landscaping;
 - Lack of activation results in services sitting away from the building face and within this limited setback due to servicing authority requirements;
 - Vehicular entrance (basement car parking) results in large setbacks to address car queuing and ramp grades into the basement with large exposed blank walls adjacent to these spaces;
- Side setbacks: Limited side setbacks to adjacent properties (combined with poor internal layouts) results in poor internal amenity (daylight and outlook), visual bulk when viewed from the street and limited opportunities for tree planting between buildings;
- Rear setbacks: The stepped rear setbacks required by ResCode provisions ('wedding cake' appearance) result in poor articulation of this interface, do not allow for more meaningful landscaping to occur from ground and also result in poor internal amenity (daylight and outlook);
- A singular setback versus stepped setbacks (wedding cake) should be explored to understand whether it addresses the desired character and vision for these areas, more appropriately assists with mitigating visual bulk and delivery of improved landscaping outcomes.



20 Existing Whitehorse development





COMMUNITY ENGAGEMENT

2.0

2.0 Community Engagement

The Process

The community engagement process for this project includes two phases of engagement. The first phase focused on an online survey, with the second phase consisting of two drop-in sessions.

Further detail from the Phase 1 and 2 consultation sessions can be found in Appendix B.

Phase 1: (March/April 2018)

The objectives for this phase of community engagement were to:

- promote the project and opportunities for community input and feedback;
- build the community's understanding of the planning controls and issues impacting the design of residential corridors located in the RGZ;
- gain insights about what issues the community thinks should be considered in this review and why;
- gain insights about what the community thinks are positive or negative housing development examples; and,
- promote the next steps for the project.

This first phase of community engagement involved two engagement tools: a newsletter

and an online survey. The newsletter that was distributed to all properties within and adjacent to the RGZ corridor. It included information about the project and a web link to the online survey. The online survey was open for four weeks and received a total of 397 responses.

In this Phase, participants identified a number of concerns arising from development and its potential impacts. Principally, the visual appearance and bulk of development occurring in Whitehorse. Respondents indicated that development should be respectful of existing character, and must consider the resulting increased demand on infrastructure and services. The inclusion of adequate green space and parking was also identified as a priority.

Phase 2: (June/July 2018)

The objectives for this phase of community engagement were to:

- promote the project and opportunities for community input and feedback;
- inform the community about how their feedback has been incorporated into the study; and
- present and test the draft Residential Corridor Built Form guidelines.

Two drop-in sessions were undertaken for this stage of engagement. Each session provided residents with an opportunity to learn more about the project and provide feedback on the draft report. A total of 92 attendees were recorded between the two sessions.

Whitehorse residents were invited to take part in a survey that provided them the opportunity to comment on the draft controls. This survey was available at the drop-in sessions and at Council's online website. A total of 66 survey responses were received.

From this Phase it was evident that the draft principles and controls were able to address some concerns raised in Phase 1. Respondents supported the proposed setbacks and maximum building height, but approximately 30 respondents thought they should be more conservative to further reduce visual bulk, and overlooking/overshadowing concerns persisted. Recommendations for green space and vegetation in setbacks were supported, as were the controls relating to lighting, pedestrian access, wind effects and good design.

Summary of Community Feedback

Overall, the design and potential impacts of new residential buildings along road corridors is important to residents. While there is not one specific design that new developments should adhere to, it is important to residents that the built form of new structures minimise impacts to nearby properties.

Height limits, quality design, setbacks, vegetation, and attractive streetscapes were identified as important design features that improve residents' perceptions and acceptance of new developments.

According to survey responses, residents are divided in their support for the draft principles. Approximately half of survey respondents support the principles overall and expect they will deliver better built form outcomes for current and future residents. The other half do not believe the draft principles/controls will allow too much medium- and high-density development that will negatively impact the community.

There is strong opinion that new development should not come at the expense of green space or existing character. Respondents want Council to ensure that new developments do not reasonably overshadow adjoining properties, restrict access to natural light, or affect the privacy of existing residences. In this regard, proposed building

setbacks and height limits remain an area of concern. Two-thirds of survey respondents would prefer a height limit of four or fewer storeys.

Car parking and management of traffic and access to properties along the road corridors was a popular theme throughout the engagement process. Many respondents want to see more on-site car parking and less overflow to neighbouring streets. Respondents suggested this concern could be more explicitly addressed in the draft controls.

Respondents questioned how Council would enforce built form principles and controls, and whether or not developers will successfully be held to them. Some added that it is especially difficult to enforce controls on landscaping, in particular the maintenance of private gardens.

Respondents expressed the need to link the increase in population growth to additional support infrastructure and services, as well as to balance the needs of existing and new residents. Future work should also consider noise and light pollution, wind effects, and specific locations most appropriate for new development.

The following urban design principles and built form controls have been refined to reflect the feedback received during both Phase 1 and 2 of consultation.



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3.0

URBAN DESIGN PRINCIPLES

3.0 Vision and Urban Design Principles

3.1 Vision for the Residential Corridors

The following vision draws from the State and Local Planning Frameworks in considering Whitehorse Road and Burwood Highway forming the boulevards of Whitehorse. These corridors are key thoroughfares, acting as exemplars of the City and as gateways to the remainder of the City's residential areas.

The Residential Corridors along Whitehorse Road and Burwood Highway will showcase the best of contemporary design, reflecting the quality and key landscape attributes of the surrounding suburbs. The interfaces with adjoining residences will be sensitively managed with space for substantial landscaping and careful attention to minimising potential amenity impacts.

3.2 Principles for Corridor Development

The following design principles have informed the development of more detailed recommendations.



Principle 1: Require Architectural Excellence Across All Developments

Architectural excellence goes beyond the skin of the building; it is critically about how the building responds to its context, including the future character of the area, the street, and how it integrates best practice environmentally sustainable design techniques. It is important that excellence is achieved in some way on all developments, not just those that are in the most prominent location or those that propose the greatest height.

Detailed design objectives and preferred development outcomes are required to ensure architectural excellence is achieved on all development.

Standard

It is recommended that a professional review of developments is undertaken including referral to the Victorian Design Review Panel for significant developments, and/or engagement with the Department of Environment, Land, Water and Planning Design Advisory Service Better Apartments.



Principle 2: Enhance Sensitive Interfaces – Residential and Open Space

The Residential Corridors interface with adjacent low scale residential areas (which are affected by the General or Neighbourhood Residential Zone). The scale and character of the Whitehorse Road and Burwood Highway corridors being within the Residential Growth Zone allows and encourages apartment developments up to 4 storeys. The permit data analysis demonstrates that based on lots sizes and consolidation, greater heights (5-6 storeys) are being permitted.

The height of buildings in the RGZ where they interface with residential areas in other zones is a key issue in this study, and a key issue of concern to the Whitehorse community. In general, it is considered that a 5-6 storey form can be accommodated in most cases, with sufficient setbacks (discussed below). It is considered a preferred height, less than a mandatory maximum of 6 storeys, would provide a nuanced preferred character adjacent to the residential zones which allow a maximum height of 3 storeys in the General Residential Zone.

Protecting the amenity of the adjacent existing residential properties is required both in the short term and long term.

Clause 55 (Standard B17) of the planning scheme aims to protect residential amenity through its side and rear setback provisions, and overlooking and overshadowing provisions.

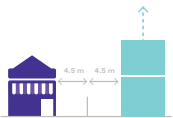
Consideration of alternative setbacks is warranted to respond to the changing nature of development including the application of Clause 58 (Apartment Developments) which applies to development of 5 or more storeys, and also the lack of response to the desired landscaping character of the area.

A large rear setback from adjacent residential properties adjoining the RGZ corridor is considered appropriate as it not only overcomes the need for screening of windows as the new development will include setbacks greater than the distance where screening is required, but also enables large canopy planting to this interface with the ability for 12 metre tall canopy trees (as per Clause 58 Standard D10, Landscaping of the Whitehorse Planning Scheme). This also requires deep soil to ensure that the landscaped areas around the development will thrive.

Standard

It is recommended that in general a preferred maximum height of 5 storeys (with the exception of the areas adjoining the Neighbourhood Residential Zone east of Springvale Road where a preferred maximum height of 4 storeys should apply) and a maximum height of 6 storeys should apply to development within the RGZ in the Study Areas to provide a better interface with adjoining development.

Development proposed greater than the preferred maximum heights should demonstrate excellence in design, compliance with all principles and standards in this report, and methods used to minimise impact on adjoining residences.



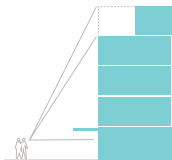
Principle 3: Provide for Equitable Access to Amenity

Development across the Whitehorse Road and Burwood Highway corridors are likely to be sporadic with potential for new, taller buildings to be located adjacent to existing, low scale buildings for a substantial period of time. It is important to have measures in place to ensure the future development potential of adjoining sites is not compromised by the earlier development.

A key consideration is equitable access to amenity to ensure adjoining buildings within the corridors have sufficient separation, to limit overshadowing and ensure adequate privacy for apartments and access to daylight.

Standard

It is recommended that a mandatory minimum separation distance between buildings of 9 metres (achieved with a 4.5 metre setback to common side boundaries and an offset of windows) where the separation does not require the reliance on screening.



Principle 4: Reinforce the Sense of Human Scale to the Street

The built form along both the Whitehorse Road and Burwood Highway corridors include a mix of low scale detached houses, units and townhouses and the beginnings of widespread apartment developments. The existing character is changing over time, based on recent approved developments, permit applications and planning policies encouraging further intensification of development along these corridors.

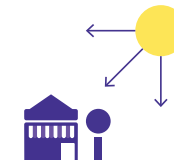
It is important that new, taller buildings are designed in a way that integrates them with existing lower scale dwellings and do not dominate the streetscape. This is possible by providing a lower scale building towards the street and setting taller elements further behind.

A four-storey building height towards the street is recommended as this will reinforce a human scale and also assists in mitigating wind downdraughts.

Standard

It is recommended that buildings should be setback 3 metres to the street above 4-storeys in height to reinforce a sense of human scale to the street.

It is also recommended that wind effects are considered for any development over 4 storeys in height.



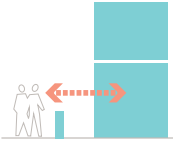
Principle 5: Maintain Solar Access to Public Open Spaces

Maintaining sunlight to these key spaces support the vitality of the area and the landscaped character of the area.

Sunlight access is usually measured at the equinox (22 September) in Planning Schemes across Victoria. Limiting shadowing to the equinox is also considered to provide a balance between good solar access at key times of the day whilst not unduly limiting development opportunities along the residential corridors.

Standard

It is recommended that solar access be measured for shadows cast at the equinox (22 September) to key open spaces between 12pm and 2pm on 22 September.



Principle 6: Provide for Integrated Frontages

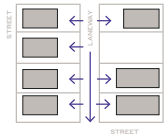
The resolution of the ground floor frontages of new apartment buildings can contribute to a positive pedestrian experience including passive surveillance. Frontages should avoid:

- blank walls,
- car parking areas,
- wide car park entrances,
- services, and
- high fences.

Standard

It is recommended that all buildings are constructed with larger floor to ceiling heights at ground floor, capable of supporting home based businesses or retail as allowed for in the Residential Growth zone (subject to permit). This will allow for buildings to be adapted in future as allowable in the zone, and providing passive surveillance of the street.

Additionally, consideration of lower fence heights and landscaping within the front setback will assist in integrating the new buildings with the desired landscaped character of the area.



Principle 7: Ensure Adequate Servicing of Existing and New Developments

As the Whitehorse Road and Burwood Highway corridors develop, so do the service and access requirements for buildings. This includes access to car parking for residents, access for service vehicles, pedestrian and cycle access, and emergency service and waste collection access.

It is important that new development takes advantage of existing service access arrangements. Where possible, driveway crossovers should be located on secondary frontages and minimised in width.

Another key consideration is ensuring that new development can be accessed adequately by pedestrians and cyclists.

Standard

It is recommended that buildings at ground floor resolve vehicle access and services and not dominate the streetscape/public areas.

