Ringwood Central Activity District

Stage 2 Parking Strategy Report

Maroondah City Council
September 2009

Stage 2 - Parking Strategy Report

Prepared for

Maroondah City Council

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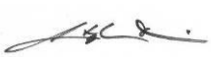
Updated Final Report	30/07/2009		Stephen Pelosi Technical Director	
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Table of Contents

List of Tables

List of Figures

Executive Summary

In December 2008, the Melbourne @ 5 million policy document announced Ringwood as one of six Central Activities Districts (CAD's) in Melbourne.

As one of the nominated CAD's, the vision for Ringwood will include:

- Significant CBD-type jobs and commercial services.
- A strong and diverse retail sector.
- Specialised goods and services drawing on a large regional catchment.
- Significant opportunities for housing redevelopment in and around these centres.
- High levels of accessibility for walking, cycling, public transport or car by being located at a junction in the Principal Public Transport Network.
- Vibrant centres of community activity with a range of public facilities.

The supply and management of parking within the CAD has an important role to play in realising this vision. Parking can no longer be viewed as a stand-alone issue but needs to become a key aspect of both transport and land use planning for the CAD.

This Parking Strategy is seen as an important tool in guiding Council's vision for future parking provision in the CAD and will be used by Council as a key Forward Planning document that upholds the principals of CAD's. The Parking Strategy has been undertaken with a view to formulating a range of policies and actions that address the future parking needs of residents and visitors to Ringwood CAD.

To assist with the development of the Parking Strategy, the City of Maroondah undertook a comprehensive Parking Study during late 2007 and early 2008 (*Stage 1 – Parking Study, February 2008*). This first stage study identified:

- There are approximately 6,994 off-street parking spaces, 504 on-street parking spaces and 1,016 rail commuter parking spaces within the Ringwood CAD study area (both public and private spaces).
- When considering the overall Ringwood CAD area, there is considerable spare parking capacity on both weekdays and Saturdays.
- There is very high peak weekday occupancy of the commuter car parks located in the proximity of Ringwood and Heatherdale railway stations.
- Car parks servicing the major shopping complexes were observed to contain significant levels of peak spare capacity.
- Modest occupancy levels along with excellent turn-over compliance were observed for the limited on-street parking available throughout the study area.
- Commuter surveys conducted by Council found that only 5% of commuters currently driving to the station would consider more sustainable options to travel to/from the station.

This Parking Strategy Report forms the second part of the study.

Parking policies and actions set out in this strategy are summarised below:

Strategy Policy 1: On-Street Parking

Council will ensure that on-street parking is efficiently utilised and best services the parking needs of land uses fronting the road network.

Actions

- As Ringwood develops as a CAD, Council will consider the implementation of appropriate time based on-street parking restrictions that best reflects the needs of the land uses fronting the road network.
- Council will seek that medium and long term parking demand is catered for by off-street private and publicly owned parking facilities.
- In consultation with local stakeholders, Council will periodically review parking restrictions with a view to possibly altering operating hours or restriction type where demand requires.
- Council will periodically monitor the utilisation of on-street parking spaces and will investigate measures to further manage on-street parking should occupancy levels consistently exceed 85%.

Strategy Policy 2: Public Off-Street Parking

Council will ensure that there is an appropriate level of medium and long term parking provided in off-street parking facilities.

Actions

- Council will undertake regular maintenance of Council owned off-street car parks.
- Council will investigate means of improving the safety and amenity of Council owned off-street car parks.
- Where feasible, Council will increase publicly provided parking stock either through the expansion of existing facilities or through acquiring a proportion of parking provided by new developments.
- Council will improve the promotion of existing Council owned off-street car parks.
- Council will seek that any future provision of public parking facilities is not provided for at ground level, particularly in front of buildings in the area between the building and the road reserve.
- Council will undertake a Feasibility Study, by CAD precinct, to identify specific opportunities to increase publicly provided parking stock and examine opportunities for shared or consolidated parking via purpose built facilities or within existing or future development.

Strategy Policy 3: Private Off-Street Parking

Council will require that privately operated off-street car parks servicing large scale developments are managed in an appropriate way to help deliver the Ringwood CAD objectives.

Actions

- Council will work alongside employers to encourage the uptake and implementation of travel initiatives such as Travel Plans to promote sustainable transport options.
- Council will generally seek that parking restrictions at privately operated off-street car parks discourage long-term commuter parking by employees, however, where there is surplus parking, there may be opportunities for the car park operator to offer these spaces to the public for long term (commuter) parking.
- Council will encourage the increased enforcement of privately operated off-street car parks.

- Council will seek that any future provision of private off-street parking is not provided for at ground level, particularly in front of buildings in the area between the building and the road reserve.
- Council will request that all new developments provide directional signage to car park facilities.

Strategy Policy 4: Rail Commuter Parking

Council supports the State Government's proposal not to provide any increase in commuter parking at Ringwood Station. Council will explore opportunities to improve existing parking infrastructure at informal car parks servicing Ringwood Rail Station to enhance the safety and efficiency of existing parking facilities.

In principal, Council will support proposals to increase and improve car parking at Heatherdale Rail Station or indeed at any other rail station within the municipality where there is an identified need.

Council will support and actively encourage schemes that help reduce the demand for parking at Ringwood Rail Station including improvements to non-car transport infrastructure and services and kiss and ride facilities.

Actions

- Council will support infrastructure improvements to enhance the efficiency and safety of informal commuter parking areas located off Station Street and Thanet Court.
- Likewise, Council will support the upgrade and formalisation of the commuter overspill car park at Heatherdale Station located to the south of Molan Street.
- Council will encourage infrastructure improvements that provide safe, convenient and direct pedestrian and cycle access to both Ringwood and Heatherdale rail stations.
- Council will support measures that enhance multi-modal travel information for passengers.
- Council will encourage and support development that potentially enables any excess parking during non-peak periods to be made available for all-day commuter parking.

Strategy Policy 5: Residential Parking

In residential streets which are shown to be impacted from an overspill of parking from non-residential uses, Council will ensure that residents are provided with priority parking.

Actions

- Council will support the expansion of the existing resident priority parking scheme in streets which are shown to experience over-spill parking.
- Council will investigate the development of a consolidated electronic system operated by a designated Council department to administrate the resident permit scheme.
- Council will investigate and implement a suitable permit system for genuine visitors to residential areas.
- Council will generally seek that parking generated by new and existing business premises in predominantly residential areas is catered for on-site or within publicly owned off-street car parks.

Strategy Policy 6: Connectivity of Parking Facilities

Council will promote improved connectivity for vehicles between existing and future car parking facilities.

Actions

- Council will encourage the owners of Eastland and Ringwood Market car parks to consider providing a link underneath Ringwood Street between the existing underground car park at

Ringwood Market and the future underground car park at proposed southbound extension of the Eastland shopping mall.

Strategy Policy 7: Construction Zones

Council will introduce a Construction Zone permit system to regulate the provision of on-street parking space allocated to support construction activity on adjacent land. Construction Zones shall be confined to the sites frontage (subject to No Stopping controls) and will be subject to a rental and administration fee.

Strategy Policy 8: Garbage Collection

To minimise the number of locations where access to garbage bins is restricted by on-street parking, Council will require that new developments provide provision for the storage and collection of garbage on-site by private collection.

In new developments where it is demonstrated to Council that the on-site storage and collection of garbage is not feasible, the applicant will be required to put forward a method of off-site garbage collection that minimises the impact on road, parking and pedestrian access. This may include special collection points or the rationalisation of bin numbers.

Strategy Policy 9: Alternate Parking

Where appropriate, Council will support reduced parking provision at new developments that provide access for building occupants to car share facilities.

In the submission of any development application incorporating car share schemes, the developer will be required to provide supporting justification for any reduction in parking provision and demonstrate that the proposed car share facility can adequately support the needs of the development.

Where appropriate, Council will approve the use of alternate vehicle parking systems in new residential and office developments to ensure that an adequate provision of car parking is achieved on site.

In the submission of any development application incorporating alternate parking systems, the developer will be required to demonstrate to Council that adequate access and egress is available to parking spaces at all times and that the parking system will not adversely impact the surrounding road network.

Council will require that development applications meet the required statutory provision for bicycle and motorcycle parking at new developments. In addition to this, Council will seek that the location and design of bicycle and motorcycle parking within new developments is given preference over car parking.

Strategy Policy 10: Directional Signage

Council will ensure that an appropriate level of directional signage is available to guide motorists to parking facilities in the Ringwood CAD area.

Actions

- Council will install directional signage to each existing car park containing over 50 parking spaces that provides publicly available parking.
- Council will require that new developments containing over 50 publicly available parking spaces provide adequate parking guidance signage to the parking facilities.

Strategy Policy 11: Enforcement

Council will provide an appropriate level of parking enforcement that seeks to fairly assist with achieving the objectives of this Parking Strategy.

Actions

- As Ringwood develops, Council will undertake appropriate levels of enforcement within the CAD area.
- Council will monitor resources with a view to ensuring that appropriate levels of enforcement are undertaken.
- Council will develop a consolidated electronic system operated by a designated Council department to administrate parking enforcement.
- Council will obtain a set of electronic parking plans and make them available for use by the Enforcement, Permits and Engineering Departments. The plans will be updated regularly to reflect any changes to parking restrictions and will be recorded on an electronic registry.
- Council will review the level of fines for parking infringements as required to ensure that fines are a sufficient deterrent to prevent illegal parking.
- Council will investigate the potential of providing enforcement in privately owned car parks in the future. In the interim, Council will encourage increased enforcement of privately owned off-street car parks by car park operators.

Strategy Policy 12: New Developments

In working partnership with DPCD, Council will periodically review and develop parking rates specified in Clause 52.06 of the Planning Scheme that ensure that the aspirations of the CAD vision are being met.

Council will encourage the transition to lower parking rates by making allowances for developers to include existing parking stock within the ownership of the development to support future development proposals.

Strategy Policy 13: Car Parking Contribution Fund

Following a feasibility study to be undertaken to identify specific opportunities to increase the provision of publicly provided car parks, Council will further investigate opportunities to develop a car parking contribution fund that will form part of the Maroondah Planning Scheme.

Actions

- Council will undertake a Feasibility Study, by CAD precinct, to identify specific opportunities to increase publicly provided parking stock either via purpose built facilities or within existing or future development.
- Council will explore the potential and advocate for a funding mechanism that allows cash in lieu to be collected and used to address parking issues and transport initiatives that help reduce the demand for car parking in the CAD.

1.0 Introduction

1.1 Background

Ringwood is an outer Melbourne suburb located approximately 20 to 25 kilometres east of the city centre, located within the City of Maroondah.

In August 2004, the Victorian Government designated Ringwood as a priority Transit City. The Transit Cities program has served as the initial demonstration program for transit oriented development in Victoria. Subsequently, in December 2008 the Premier and Minister for Planning in Victoria released the Melbourne @ 5 Million report which provides policy initiatives that are complementary to the directions of *Melbourne 2030* and builds on the achievements of the Transit Cities program.

The scale of growth now anticipated in Melbourne suggests a need for six designated Principal Activity Centres to be reclassified as Central Activities Districts (CADs). Moving from one centre (Melbourne's Central Business District) to a number of centres will reduce congestion and enable people to spend less time commuting to and from work and more time with their family. Ringwood, which was previously part of the Transit Cities Program, has now been designated as one of the six CADs.

As one of the nominated CADs, the vision for Ringwood will include:

- Significant CBD-type jobs and commercial services.
- A strong and diverse retail sector.
- Specialised goods and services drawing on a large regional catchment.
- Significant opportunities for housing redevelopment in and around these centres.
- High levels of accessibility for walking, cycling, public transport or car by being located at a junction in the Principal Public Transport Network.
- Vibrant centres of community activity with a range of public facilities.

The supply and management of parking within the CAD has an important role to play in realising this vision. Parking can no longer be viewed as a stand-alone issue but needs to become a key aspect of both transport and land use planning for the CAD. This integrated approach will ensure Maroondah City Council can promote and support:

- Lifestyles that are less car-dependent.
- Transport provision that is more socially inclusive.
- Development that is more sustainable in terms of energy and pollution.
- Settlements which are more attractive and user-friendly.

The development of a Parking Strategy is seen as an important tool in guiding Council's vision for future parking provision in the CAD.

To assist with the development of the Parking Strategy, the City of Maroondah undertook a comprehensive Parking Study during late 2007 and early 2008 (*Stage 1 – Parking Study, February 2008*).

This first stage study identified:

- Existing parking supply and restrictions throughout a study area covering the central Ringwood Activity hub and Ringwood and Heatherdale rail stations.
- Observed spatial concentration and distribution of parking demand.
- Commuter travel patterns to and from Ringwood Rail station.
- Existing parking issues and potential areas for improvement.

The findings and outcomes of the Stage 1 Parking Study effectively provide the empirical baseline from which this Parking Strategy has been developed. The key findings of the study were as follows:

- There are approximately 6,994 off-street parking spaces, 504 on-street parking spaces and 1,016 rail commuter parking spaces within the Ringwood CAD study area (both public and private spaces).
- When considering the overall Ringwood CAD area, there is considerable spare parking capacity on both weekdays and Saturdays.
- There is very high peak weekday occupancy of the commuter car parks located in the proximity of Ringwood and Heatherdale railway stations.
- Car parks servicing the major shopping complexes were observed to contain significant levels of peak spare capacity.
- Modest occupancy levels along with excellent turn-over compliance were observed for the limited on-street parking available throughout the study area.
- Commuter surveys conducted on behalf of DPCD found that only 5% of commuters currently driving to the station would consider more sustainable options to travel to/from the station.
- Based on proposed DPCD parking rates, between 12,900 and 14,750 parking spaces will be required to support the Ringwood CAD area by 2030.
- Many of the parking spaces required to support the level of development in 2030 currently exist with an increase in required parking likely to be in the order of 5000-7000 spaces.

1.2 Study Objectives

The Parking Strategy has been undertaken with a view to formulating a range of policies and actions that address the future parking needs of residents and visitors to Ringwood CAD. Accordingly the major focus of the study is to gradually reduce demand for car based travel through the management and supply of car parking and to encourage the use of alternative modes of transport to and from Ringwood CAD.

The Strategy has four main aims:

- Improve management of on-street and off-street car parking to achieve optimum use and turnover of car parks.
- Maximise the availability and awareness of existing parking by better managing demand and encouraging alternative transport modes such as walking, cycling and public transport.
- Manage the provision of off-street parking for new and existing land uses.
- Encourage good design principles to minimise the amount of land used by car parking at ground level.

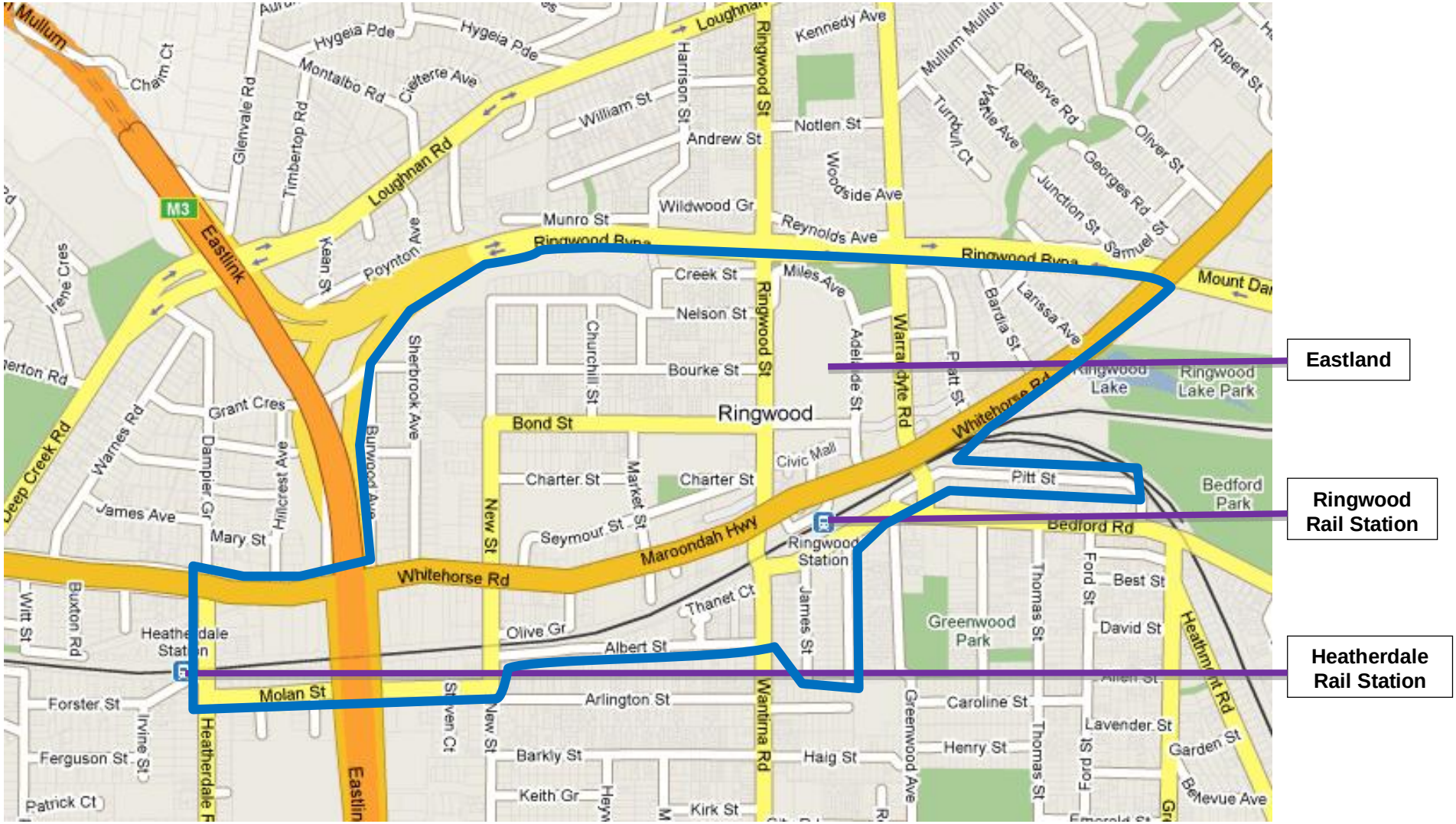
These broad aims have been further developed into a range of specific objectives relating to parking arrangements and access within the study area:

- Encourage the use of alternate modes of transport to and from Ringwood CAD including the increased provision of bicycle and motor cycle parking.
- Increase accessibility to and from Ringwood.
- Increase accessibility within Ringwood CAD.
- Provide strategic direction for future provision of on-street parking facilities.
- Provide appropriate car parking rates for higher density development.
- Protect the safety and amenity of residential areas surrounding the Ringwood CAD.
- Provide strategic direction for future parking enforcement of on-street and off-street car parking facilities.

1.3 Study Area

The study area covered by this Parking Strategy is shown in Figure 1.1. The study area encompasses a range of commercial, retail, residential and industrial land uses within and surrounding Ringwood Town Centre, Ringwood Rail Station and Heatherdale Rail Station.

Figure 1.1 Project Study Area (area bounded by blue line)



2.0 Strategic Context

2.1 Overview

The strategies developed in this report are designed to align with current strategies which have been adopted by either Council or the State Government. A summary of relevant documents is provided below:

2.2 Melbourne 2030 and Melbourne @ 5 million

Released in 2002, *Melbourne 2030* provides a long-term plan for Melbourne and the surrounding region. *Melbourne 2030* has identified that Transit Cities and Activity Centres will be the major focus of change in Metropolitan Melbourne over the next 30 years.

The key transport-related objectives for the development of Transit Cities and Activity Centres include:

- Reduce the number of private motorised vehicle trips by concentrating activities that generate high numbers of (non-freight) trips in highly accessible locations.
- Improve access by walking, cycling and public transport to services and facilities for local and regional populations.
- Support the development of the Principal Public Transport Network.

Melbourne @ 5 million provides policy initiatives that are complementary to the directions of *Melbourne 2030*. It outlines the implications of the Victoria in Future 2008 growth projections for Melbourne, which indicate that the city's population is likely to reach 5 million before 2030. Actively managing this growth and change is an important part of Melbourne's future liveability.

Central to the vision of Melbourne @ 5 million is the creation of a multi-centre city through six new Central Activities Districts, one of which is Ringwood.

2.3 The Victorian Transport Plan

The Victorian Transport Plan was released concurrently with Melbourne @ 5 million and links future transport investment to land development so that more people will live closer to jobs and other opportunities.

The VTP and Melbourne @ 5 million bring together future transport and land use decisions to:

- Increase development and job opportunities through strategic transport investment
- Develop future housing in the established areas of Melbourne along the tram and rail network
- Invest in new transport links to promote more jobs closer to new housing in Melbourne's fast-growing west and north
- Take pressure off the city and inner Melbourne by facilitating substantial employment growth at six designated Central Activities Districts (CADs), and along employment corridors in middle and outer areas
- Support Melbourne's growth areas with high capacity public transport links, nominating CADs, creating employment corridors and investigating the proposed extension of the Urban Growth Boundary
- Support regional population growth through significant investment in more transport services that link regional centres to Melbourne and smaller towns to regional cities.

The Victorian Transport Plan has committed more than $60 million to encourage the development of the six CADs.

In 2008 the Premier and Minister for Planning announced a further commitment of $39 million by the State Government to create a new urban heart for Ringwood in conjunction with Queensland Investment Corporation's Eastland redevelopment. The investment will deliver:

- Completion of a new town square and urban heart for Ringwood.
- Improved safety around Maroondah Highway including a new pedestrian crossing.
- A new bus interchange.
- Further work with the council to attract additional investment in the area.

This $39 million investment builds on the $5.4 million delivered in the 2007/08 State Budget for detailed design work which will provide a blueprint for integrating Eastland and the proposed town square across Maroondah Highway to the station precinct.

The VTP recognises that climate change is one of the greatest environmental, economic and social challenges of our time. The way we travel has a major impact on our environment with about 16.5 per cent of our greenhouse gas emissions coming from transport.

The Victorian Government is taking action now to cut emissions by:

- investing $115 million in new bike paths, safe bike lanes, and a public bike hire scheme
- supporting car pooling to reduce the number of cars on the road
- encouraging more efficient driving practices
- improving safety, awareness and parking for motorbikes and scooters
- increasing the use of low emission vehicles, including trialling hybrid-electric buses on the metropolitan bus network
- setting a mandatory carbon emissions target for the Victorian Government vehicle fleet, in consultation with the local automotive industry.

In the medium term, emissions will be reduced by encouraging Victorians to use more sustainable forms of transport, such as public transport, scooters, cycling and walking.

This means trains, buses and trams will be more frequent, safer and more reliable. The metropolitan rail network will also be extended and there will be more train station and interchange parking and better bus links to stations.

In the long term, linking the planning of transport and land-use will help bring jobs closer to where people live.

Future action in the Ringwood CAD should therefore clearly support the approaches outlined above.

2.4 State Planning Policy Framework

The State Planning Policy Framework (SPPF) comprises general principles for land use and development in Victoria and specific policies dealing with settlement, environment, housing, economic development, infrastructure and particular uses and development. The SPPF is fixed for all planning schemes and it contains strategic issues of State importance which must be considered when decisions are made. To ensure integrated decision-making, planning authorities and responsible authorities must take account of and give effect to, the general principles and the specific policies contained in the SPPF.

The SPPF sections relevant to this Parking Strategy are found primarily in Clause 18 of the SPPF and are summarised below (the SPPF sub-clause numbers are provided for reference).

SPPF Clause 18.01 Declared highways, railways and tramways

The objective of this clause is to integrate land use and transport planning around existing and planned highways, railways, principal bus routes and tram lines.

"Transport routes should be located to achieve the greatest overall benefit to the community and with regard to making the best use of existing social, cultural and economic infrastructure, minimising impacts on the environment and optimising accessibility, safety, emergency access, service and amenity.

"New transport routes and adjoining land uses should be located and designed to minimise disruption of residential communities and their amenity.

"New uses or development of land near an existing or proposed transport route should be planned or regulated to avoid detriment to, and where possible enhance, the service, safety and amenity desirable for that transport route in the short and long terms.

"Higher land use densities and mixed use developments should be encouraged near railway stations, major bus terminals, transport interchanges, tramways and principal bus routes.

"Pedestrian access to public transport should be facilitated and safeguarded.

"The design of transport routes and nearby areas should be planned and regulated to achieve visual standards appropriate to the importance of the route with particular reference to landscaping, the control of outdoor advertising and, where appropriate, the provision of buffer zones and resting places."

SPPF Clause 18.02 Car parking and public transport access to development

The objective of this clause is to ensure access is provided to developments in accordance with forecast demand taking advantage of all available modes of transport and to minimise impact on existing transport networks and the amenity of surrounding areas.

"Consideration should be given to all modes of travel, including walking, cycling, public transport, taxis and private vehicles (passenger and freight) in providing for access to new developments.

"The integration of public transport services should be encouraged in new development.

"In allocating or requiring land to be set aside for car parking, planning and responsible authorities should:

- *Have regard to the existing and potential modes of access including public transport, the demand for off-street car parking, road capacity and the potential for demand management of car parking*
- *Encourage the efficient provision of car parking through the consolidation of car parking facilities*

"Planning and responsible authorities should prepare or require parking precinct plans for the design and location of local car parking to:

- *Protect the role and function of nearby roads, enable easy and efficient use and the movement and delivery of goods*
- *Achieve a high standard of urban design and protect the amenity of the locality, including the amenity of pedestrians and other road users*
- *Create a safe environment for users, particularly at night*
- *Facilitate the use of public transport*

"The amenity of residential precincts should be protected from the effects of road congestion created by on-street parking.

"Adequate provision for taxi ranks should be planned as part of activity centres, transport interchanges and major commercial, retail and community facilities."

SPPF Clause 18.03 Bicycle transport

The objective of this clause is to integrate planning for bicycle travel with land use and development planning and encourage cycling as an alternative mode of travel.

"Wherever possible, off-road bicycle networks should be planned for in new urban development.

"Responsible authorities should require that adequate bicycle parking and related facilities to meet demand be provided at education, recreation, shopping and community facilities when issuing planning approvals."

2.5 Maroondah Integrated Transport Strategy

The Maroondah Integrated Transport Strategy was adopted by Maroondah City Council in February 2006. This document provides the framework for the development of the Ringwood CAD program.

"The aim of the document is to develop a strategic transport and accessibility plan for Maroondah that:

- *Ensures that all sectors of the Maroondah community have access to a range of activities via alternative transport modes;*
- *Ensures that adequate opportunities are provided for the development and use of alternative modes of transport to the private car and*
- *Ensures that transport services in Maroondah are provided in an integrated and sustainable manner."*

The Maroondah Integrated Transport Strategy is in line with Melbourne 2030 policy and other key policy frameworks.

2.6 Ringwood Bicycle Plan: Ringwood Transit City

The DPCD funded Ringwood Bicycle Plan for the Ringwood Transit City (now CAD) was prepared by Council in February 2008 to encourage cycling as a transport mode. The Bicycle Plan incorporates the following:

- Proposed future bicycle network in and around the Ringwood CAD.
- Recommended prioritisation and staging of the proposed infrastructure works.
- Possible need for land acquisitions and the dependence of some works on land redevelopment.
- Important transportation improvements upon which some bicycle infrastructure items are dependent.

3.0 Public and Sustainable Transport

3.1 Public Transport

There is range of public transport services in the study area with multiple bus and train services centred around Ringwood Railway Station and Bus Interchange.

3.1.1 Trains

Ringwood Station is designated as a premium station and is located in Ticketing Zone 2. Express train services arrive in the CBD city loop approximately 33 minutes after departing Ringwood Station, whilst non-express services take approximately 40 to 42 minutes to reach the central city.

Ringwood Station is the junction for the Belgrave and Lilydale lines, resulting in a high frequency of services into and out of the city. The total number of train services which operate during the peak morning and evening hours is summarised in Table 3.1. The high frequency makes Ringwood popular with many commuters thus creating a parking demand in the station environs. Similar behaviour is observed at Heatherdale Railway Station, which has the same number of stopping trains and provides substantial commuter parking.

Table 3.1: Total Number of Train Services per hour from Ringwood / Heatherdale Station(s)

Line	AM Peak Hour		Off Peak Hour		PM Peak Hour	
	To City	To Lilydale/ To Belgrave	To City	To Lilydale/ To Belgrave	To City	To Lilydale/ To Belgrave (from the City)
Belgrave	13	2	4	4	6	13
Lilydale	6	9	4	4	7	9
Total	19	11	8	8	13	22

As shown in Table 3.1, there are a total of 19 services from Ringwood Station to the City in the AM peak hour and 22 services from the City in the PM peak hour. In this regard, during peak hours, trains operate to/from Ringwood in the peak direction approximately every three minutes and in the counter-peak direction approximately every five minutes.

3.1.2 Buses

Ringwood Station also has a bus interchange area which services eight Metlink routes that cater for passengers travelling into the study area from neighbouring suburbs up to a radius of approximately 15 kilometres. In addition to this, bus route 742 provides a connection between Eastland Shopping Centre in Ringwood and Chadstone Shopping Centre in Malvern East.

Ringwood Station is also served by the 901 bus route which forms part of the network of SmartBus routes across metropolitan Melbourne. The SmartBus program has been introduced to greatly improve the quality of public transport services in suburban communities by providing 'cross-town' bus services connecting train stations, shopping centres and other community facilities. The key aspects of this program include longer operating hours, higher service frequency, improved information at bus stops, wheelchair accessible services and priority at traffic lights. Route 901 operates through Ringwood connecting with other outer suburb activity centres such as Frankston, Dandenong, Eltham, Epping and the Airport.

Table 3.2 summarises the average frequency of bus services through Ringwood Station (and routes 742 and 701) in each direction during the weekday morning and evening peak hours and also on Saturdays. Figure 3.1 illustrates the routes of these 10 bus services.

Table 3.2: Bus Routes Servicing the Study Area and Services Per Hour in Each Direction

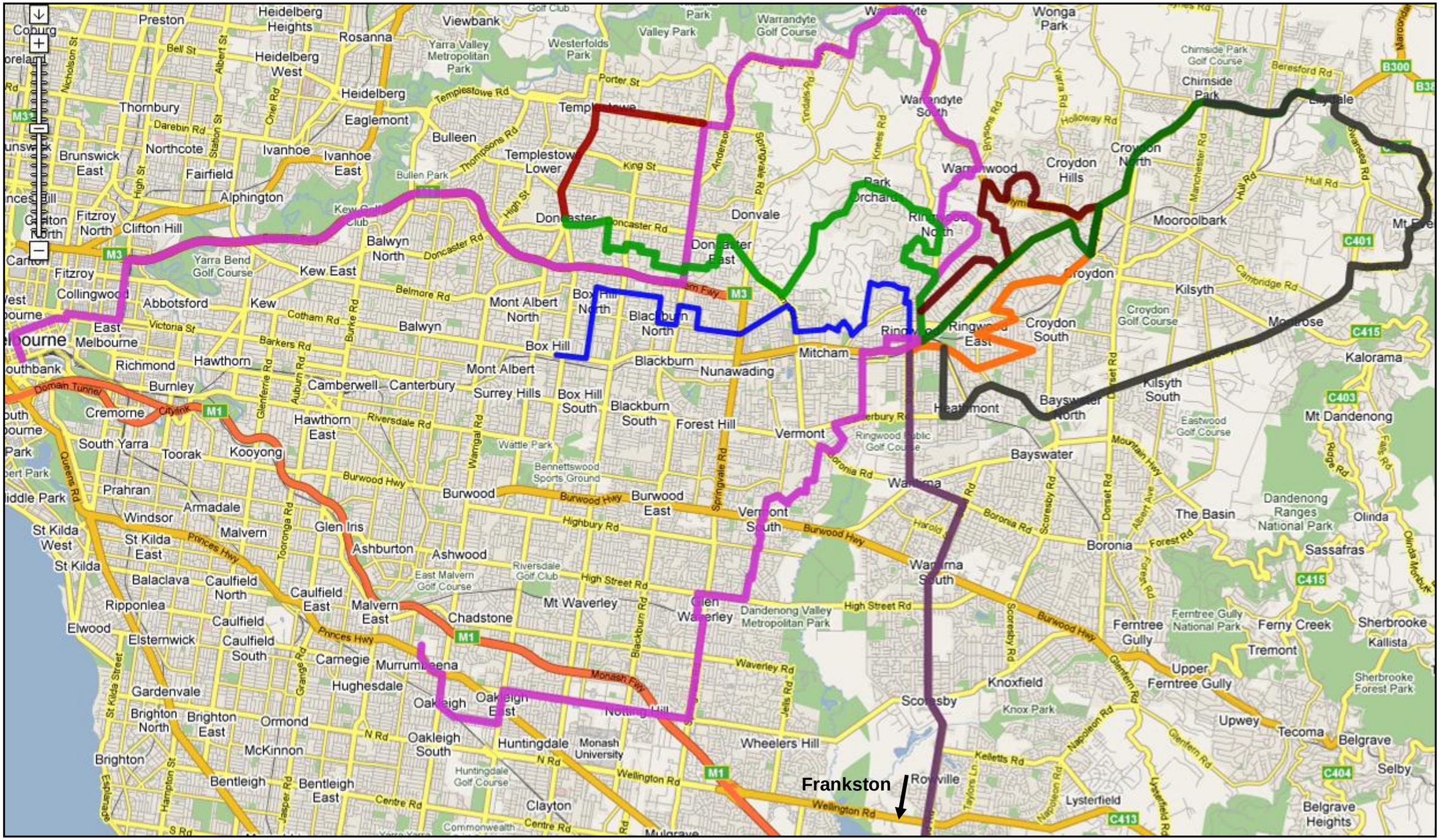
Route Number	Route	Weekday			Saturday
		AM Peak	Off Peak	PM Peak	
365	Ringwood to Doncaster Shopping Town	3	2	4	1
304	City to Warrandyte	2	2	2	0
364	Ringwood to Doncaster Shoppingtown	2	2	3	1
270	Ringwood to Box Hill	2	2	2	1
367	Ringwood to Croydon	3	2	3	1
366	Ringwood to Croydon	3	2	3	1
670	Ringwood to Lilydale	3	2	3	1
679	Ringwood to Chirnside Park	2	2	3	2
742	Eastland Shopping Centre to Chadstone Shopping Centre	3	2	2	2
901	Ringwood to Frankston (Smart Bus Service)	4	4	4	2
Total Buses in Each Direction		27	22	29	12

As shown by Table 3.2 and Figure 3.1 the overall coverage of bus services is reasonable.

During normal weekday peak periods train services depart Ringwood station on average every three minutes. Thus the co-ordination of bus timetables to optimise connections to trains during the peaks is not critical as abundant train services exist.

During off peak periods both the Belgrave and Lilydale line trains run at a 15 minute frequency (services in either direction). Consequently during off-peak travel period opportunities exist for bus timetables to be reviewed to improve interchange between modes.

Figure 3.1 Bus Routes Servicing the Study Area

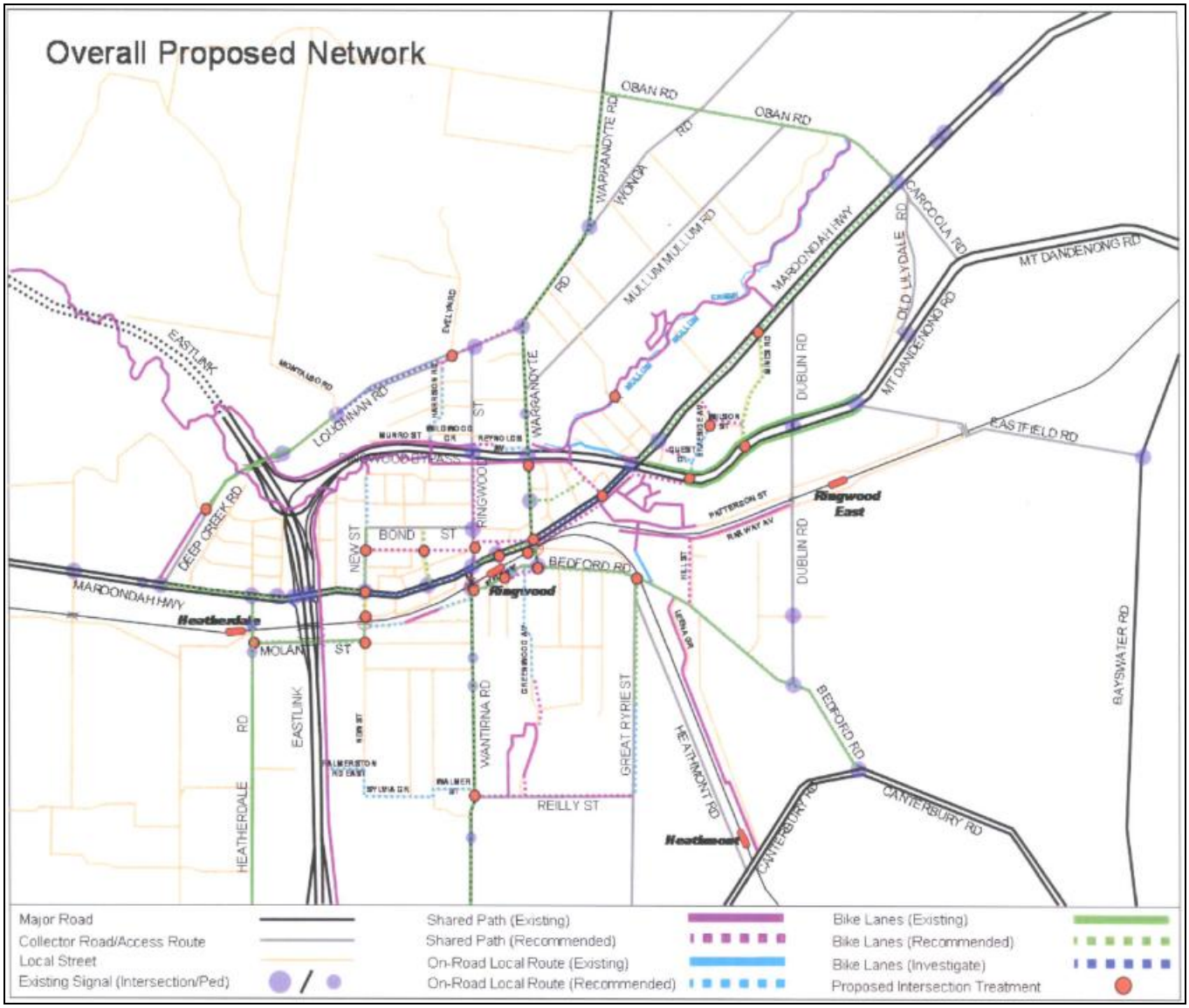


3.2 Bicycle Access

Maroondah City Council has produced the Ringwood Bicycle Plan which sets out a range of initiatives to help encourage a shift from car travel to bicycles and thus reduce pressure on car parking. It is envisaged that the initiatives put forward within the plan will provide a comprehensive, interconnecting network of bicycle routes to and within the Ringwood CAD comprising Principal Bicycle Network routes, Metropolitan Trail network routes and local bicycle routes.

The future bicycle network envisaged within the Ringwood Bicycle Plan is shown in Figure 3.2.

Figure 3.2 Existing and Proposed Bicycle Routes



4.0 Demographics, Land Use and Travel Trends

4.1 Overview

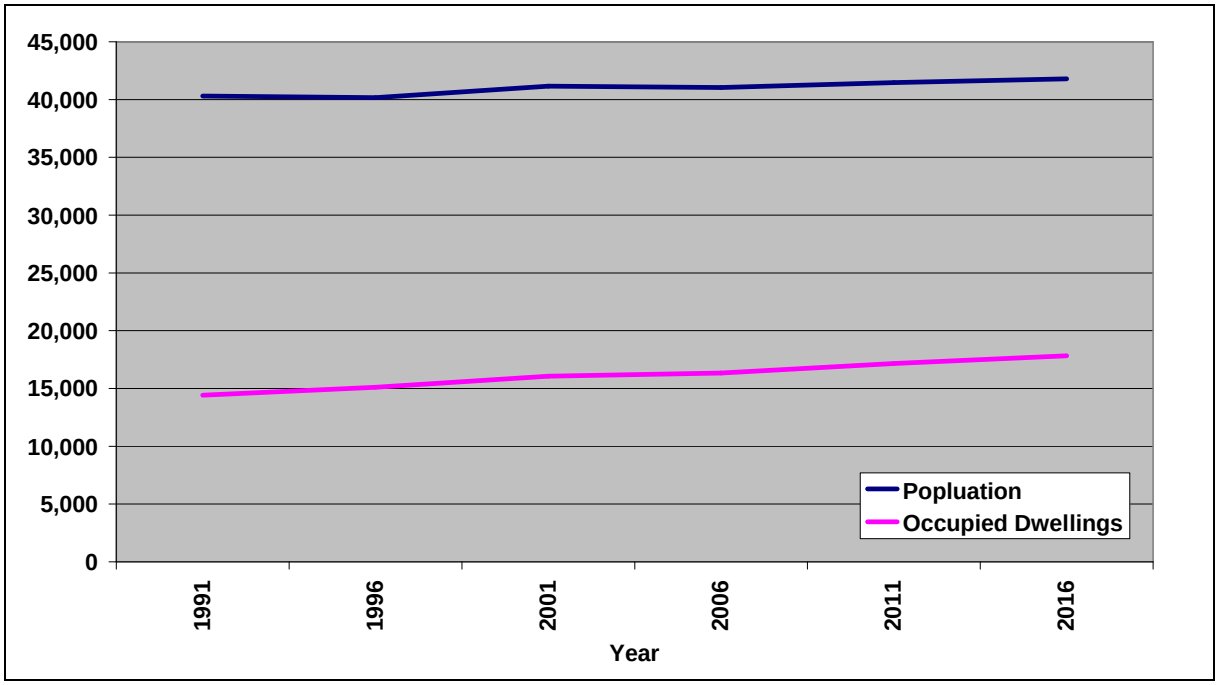
A range of demographic, land use and travel trends have been reviewed in the preparation of this Strategy. The key access and parking management issues arising from this review include:

- The number of trips to and from Ringwood is likely to substantially increase as a result of the growth in commercial, retail and business activity within the Ringwood CAD area.
- The population of Ringwood is ageing. In this regard, there may be a future trend towards reduced car use and / or greater use of public transport and walking for shorter trips.
- Household size is decreasing, thus providing the opportunity to potentially reduce car parking provision per household.

4.2 Population Characteristics

Figure 4.1 indicates that Ringwood is forecast to experience a modest growth in population by approximately 1% every 5 years between 1991 and 2016.

Figure 4.1 Population & Dwelling Trends



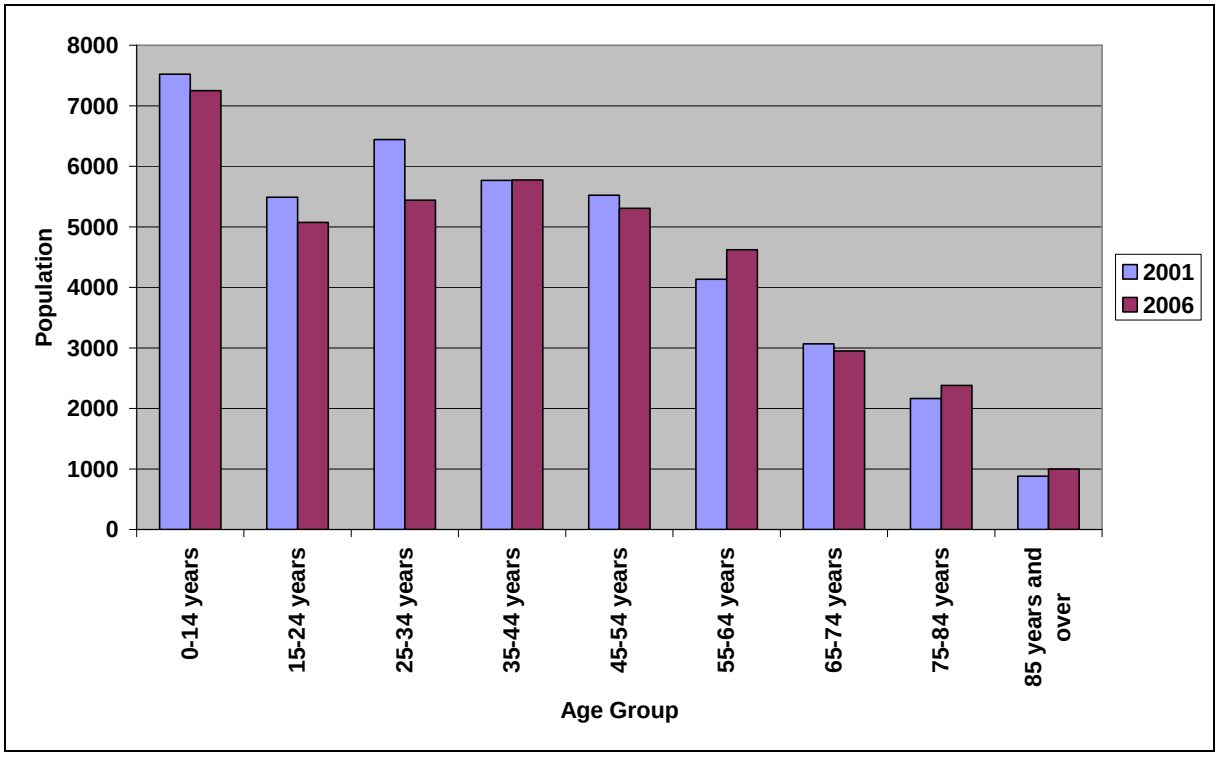
4.2.1 Population Structure

The population in Ringwood is ageing. Figure 4.2 indicates a decline in population between 2001 and 2006 in each group under the age of 65 years, with the exception of the 36-44 years age group which has remained relatively stable.

Conversely, there has been a general growth in population between 2001 and 2006 in each group over the age of 65 years, with the exception of the 66-74 years age group which has remained relatively stable.

Future transport and mobility patterns in Ringwood are likely to reflect the transport requirements of an ageing population. Research studies such as the Victorian Activity and Travel Surveys indicate that the travel patterns of older people tend to differ from those of younger people. Typically older adults tend to own less cars, travel over much shorter distances and travel mainly for shopping and recreational purposes. With continual rises in the cost of car based travel, it is likely that in situations where there are a range of transport options available or services located within close walking distances car use will be lower.

Figure 4.2 Population Structure Trends



4.2.2 Dwelling Structure

Household size in Ringwood has been declining since the early 1990's and it is forecast that the number of persons per household will continue to decrease in the future. This is reflected in Figure 4.3 which indicates that the average number of people per household has fallen from 2.8 in 1991 to 2.5 in 2006. Figure 4.4 indicates that approximately 60% of households in 2006 were occupied by 1 or 2 persons.

The trend in decreasing household size is apparent throughout metropolitan Melbourne. A fundamental aspect of the State Government's vision for CAD's is to address decreasing household size through the provision of higher density development close to a wide range of transport options. The intensification of a diverse range of development provides easy access to shops, services and job opportunities and thus increases the opportunity for people to walk, cycle and use public transport as realistic travel alternatives to the private car. This in turn may contribute to a potential future trend towards reduced car ownership per household.

Figure 4.3 Dwellings in Ringwood – Average number of people per household

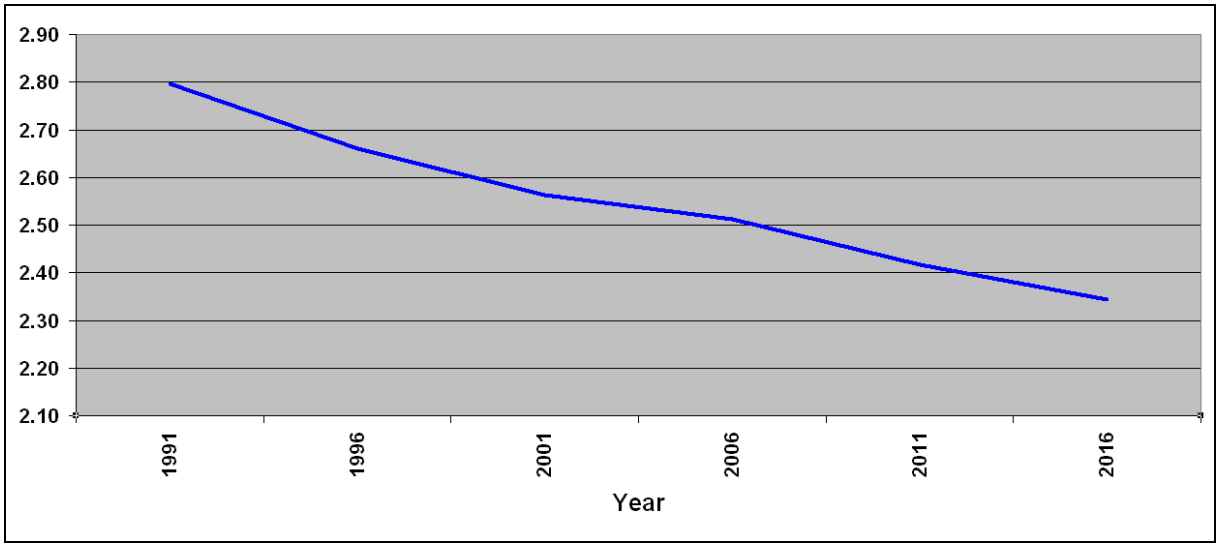
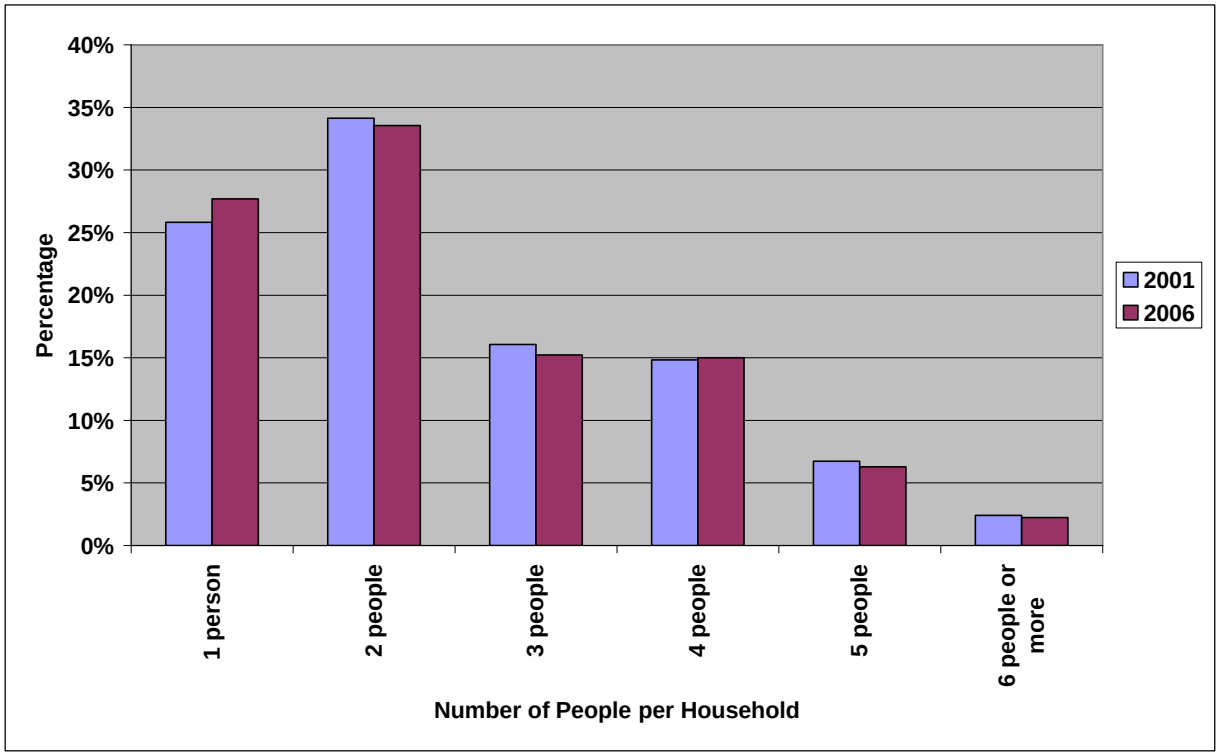


Figure 4.4 Dwellings in Ringwood - Number of People



4.3 Land Use

4.3.1 Existing Land Use

Ringwood is a regionally significant generator of employment, retail shopping and commercial activity. The two major commercial centres within the CAD area are Eastland Shopping Centre and the Centro / Ringwood Market Shopping Precinct. The retail and commercial centre is also made up by a number of smaller commercial and retail businesses located within the Ringwood CAD.

The industrial area in Ringwood is predominantly located south of the Ringwood CAD area, between Canterbury Road and Maroondah Highway. However, there are small pockets of industrial land use within the study area, extending along Heatherdale Road and New Street. Previous land zonings of Light and General Industrial have prevented the establishment of offensive and dangerous industries with wholesale/warehousing being the predominant forms of industrial activity. Commercial/ office areas are generally located at the periphery of the Ringwood Activity Centre and are generally associated with industrial uses.

The Ringwood CAD also contains residential housing areas at its eastern end and in the north-west quarter. The *Future Conditions Paramics Modelling – Ringwood Transit City*, prepared by Council in 2007 identified the breakdown of land uses within the Ringwood CAD in 2005. These land use provisions are outlined below in Table 4.1.

Table 4.1 Existing Land Use

Land Use	Existing Provision (2005)
Retail (sq.m.)	101,150
Office (sq.m.)	35,090
Showroom (sq.m.)	29,990
Education (sq.m.)	0
Residential townhouse (No.)	543
Residential apartment (No.)	0

4.3.2 Future Land Use Development within Ringwood CAD

The *Ringwood Transit City Urban Design Masterplan,* prepared by Council in 2004, outlines the land use and activity pattern envisaged for the Ringwood CAD. The plan recommends intensifying the level of activity throughout the area to accommodate as many people living and working within and close to the CAD as possible, in order to maximise the opportunity for people to adopt realistic travel alternatives to the private car. The study advocates consolidating mixed use formats to the east of Warrandyte Road and west of Ringwood Street with medium rise commercial uses co-existing with integrated medium to high density housing.

The *Maroondah Integrated Transport Strategy* adopted by Council in 2006 also recognises the need to cater for the changing demographic profile of its population. The strategy identifies preferred areas for medium density housing adjacent to major commercial/retail areas and train stations. Council has also identified the need to attract larger commercial/retailers in order for existing commercial and retail areas to remain competitive and viable.

The *Future Conditions Paramics Modelling – Ringwood Transit City* report prepared on behalf of Council in 2007 includes forecasts for both conservative and high growth scenarios of land use in Ringwood CAD up to the year 2030.

The forecast full development build out in each of the Ringwood CAD precincts is presented by land type in Table 4.2, with a summary of the total full build out of each land use type presented in Table 4.3. The location of each precinct within the CAD is shown in Figure 4.5.

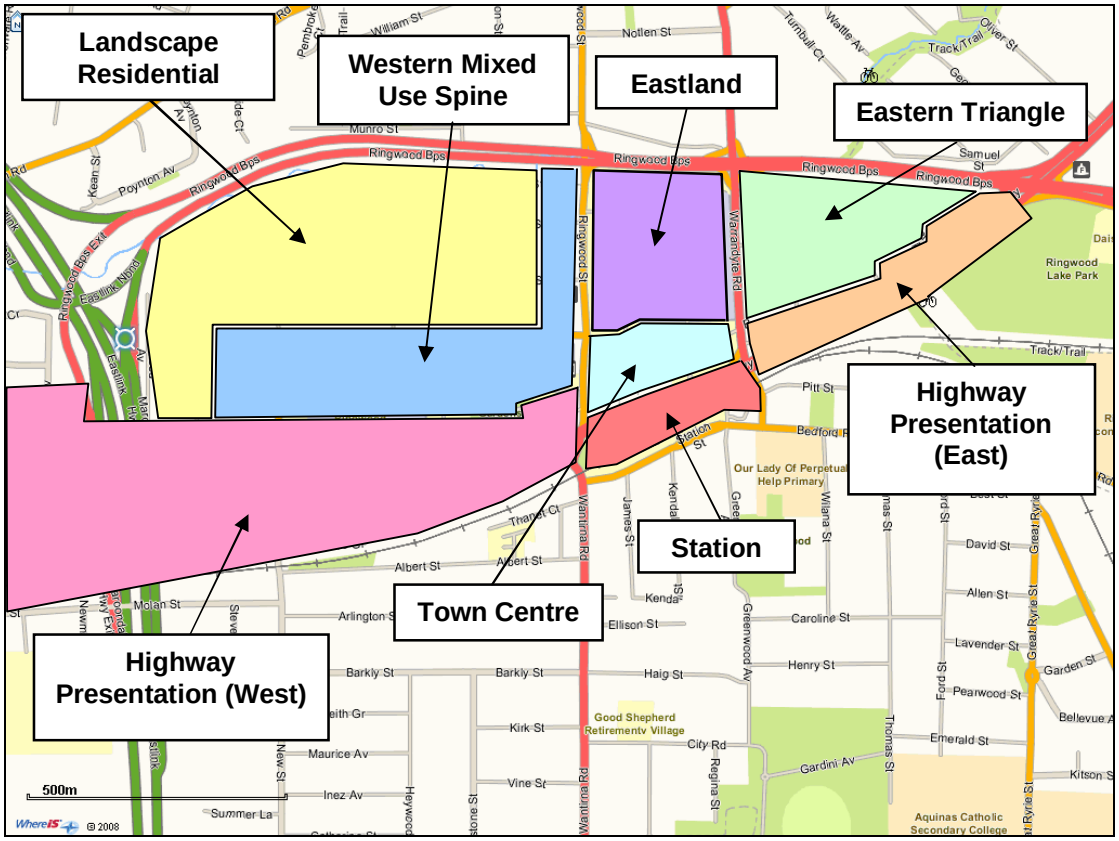
Table 4.2 Forecast Increases in Land Use Areas

Precinct	Land Use	Forecast Provision in 2030	
		Conservative	High Growth
Town Centre	Retail (sq.m.)	55,000	55,000
	Office (sq.m.)	12,000	18,000
	Education (sq.m.)	11,750	12,550
	Residential dwellings (townhouses/apartments)	0 / 200	0 / 250
Station Super Block	Retail (sq.m.)	2,000	2,735
	Office (sq.m.)	2,000	2,500
	Residential dwellings (townhouses/apartments)	0 / 150	0 / 200
Highway Presentation	Retail (sq.m.)	5,000	6,000
	Office (sq.m.)	48,000	69,500
	Showroom (sq.m.)	39,000	45,000
	Residential dwellings (townhouses/apartments)	0 / 161	10 / 161
Eastern Mixed Use Triangle	Retail (sq.m.)	0	0
	Office (sq.m.)	3,000	4,500
	Showroom (sq.m.)	0	0
	Education (sq.m.)	8,250	8,250
	Residential dwellings (townhouses/apartments)	360 / 150	400 / 175
Western Mixed Use Spine	Retail (sq.m.)	22,000	22,000
	Office (sq.m.)	23,500	31,500
	Residential dwellings (townhouses/apartments)	40 / 100	40 / 125
Landscape Residential	Office (sq.m.)	1,500	4,000
	Residential dwellings (townhouses/apartments)	600 / 109	650 / 150
Eastland	Retail (sq.m.)	90,430	90,430

Table 4.3: Full Land Use Build Out in Ringwood CAD by 2030

Land Use	Full Build Out (2030) Conservative	Full Build Out (2030) High Growth
Retail (sq.m.)	174,350	176,085
Office (sq.m.)	90,090	130,090
Showroom (sq.m.)	38,990	44,990
Education (sq.m.)	20,000	20,800
Residential townhouse (No.)	1,543	1,643
Residential apartment (No.)	870	1,061
Entertainment	3,760	3,760

Figure 4.5 Land Use Forecast Precincts



4.4 Commuter Travel Trends

A review of 2006 census data reveals that Ringwood residents travel to work by the following modes of transport:

- car driver or passenger (79%)
- train (10%)
- bus (6%)
- used other modes (5%)

It should be noted that since 2001, the proportion of people driving to work has remained fairly stable.

Some workers' journeys involved multiple trips, often when they got a lift to the bus or train. The Census reported an average of 1.10 trips per worker, or about one worker in ten making two trips to get to work.

5.0 Parking – Stage 1 Parking Study Findings

5.1 Overview

A comprehensive Parking Study was prepared by the City of Maroondah during late 2007 and early 2008 (*Stage 1 – Parking Study*).

This first stage study identified:

- Existing parking supply and restrictions throughout a study area covering the central Ringwood Activity hub and Ringwood and Heatherdale rail stations.
- Observed spatial concentration and distribution of parking demand.
- Commuter travel patterns to and from Ringwood Rail station.
- Existing parking issues and potential areas for improvement.

The *Stage 1 - Parking Study* found that the majority of parking spaces within the surveyed area are provided off-street, either as part of the major shopping centre complexes or commuter parking in general proximity of Ringwood or Heatherdale Railway tations.

The parking restrictions within Eastland Shopping Centre, Centro Shopping Centre and Ringwood Markets car parking areas comprise a mix of 1P, 2P, 3P, 4P and 6P. The parking restrictions aim to cater for the needs of short to medium term shoppers and to some extent the longer term needs of employees, whilst attempting to discourage other all day parkers such as rail commuters.

The 1,016 spaces which have been classified as rail commuter areas are considered likely to be entirely utilised by rail commuters, as other motorists would have no reason to park in these areas in preference to other more convenient parking areas. The possible exception to this is the unrestricted car park located at the rear of a strip of Whitehorse Road retail businesses. This car park has capacity of 145 spaces and is most likely utilised by a mixture of rail commuters, shoppers and local employees.

A total of 504 on-street parking spaces were surveyed as part of the *Stage 1 - Parking Study*. These on-street spaces predominantly service the needs of smaller retail and business premises abutting Maroondah Highway and adjoining roads by providing convenient customer parking. The majority of on-street parking spaces are subject to short term parking restrictions (up to 1 hour limit), although there are also 142 unrestricted on-street parking spaces within the study area.

5.2 Parking Occupancy Surveys

In the *Stage 1 - Parking Study*, approximately 8,514 spaces were surveyed in the Ringwood CAD area including:

- 6,994 public off-street spaces.
- 504 on-street spaces.
- 1,016 rail commuter parking spaces.

Table 5.1 provides a summary of the capacity and occupancy of the parking spaces surveyed during the *Stage 1 - Parking Study*.

Table 5.1 Summary of Car Parking Demand & Spare Capacity

Location	Capacity (No. of spaces)	Weekday		Saturday	
		Peak Occupancy	Peak Spare Capacity (No. of spaces)	Peak Occupancy	Peak Spare Capacity (No. of spaces)
Eastland Shopping Centre	4878	68%	1,561	85%	732
Centro Shopping Centre/Ringwood Market Precinct	1,018	55%	462	52%	480
Ringwood Station Car Parks	463	91%	42	22%	361
Heatherdale Station Car Parks	553	90%	55	7%	514
Smaller Private Car Parks	1,098	57%	-	32%	-
On-Street parking	504	44%	282	32%	343
Total	8,514		2,402		2,431

The findings suggest that when considering the overall study area there is considerable spare parking capacity on both weekdays and Saturdays.

However, little of the spare weekday capacity is available for rail commuters as there is very high weekday occupancy of the commuter car parks located in proximity of Ringwood and Heatherdale Railway Stations. A total of 97 unoccupied parking spaces were observed across both precincts.

The findings indicate that there was significant spare weekday capacity within the Eastland Shopping Centre with 1,561 unoccupied parking spaces at the busiest time of day. In particular the basement and rooftop car parks of the shopping centre were observed to contain modest peak parking occupancy levels.

Eastland experienced significantly higher parking occupancies during the Saturday survey period when the peak occupancy recorded was 85%, providing a reduced spare capacity of 732 parking spaces. Similar to the weekday survey, the basement and rooftop car parks experienced the lowest car parking occupancy.

Centro Shopping Centre and Ringwood Market are located in close proximity to each other. The peak occupancy rate for the entire Centro Shopping Centre and Ringwood Market precinct was recorded as 55% on the weekday and 52% on Saturday. In this regard, the precinct had a peak spare capacity of 458 spaces during the weekday and 489 spaces on Saturday.

5.3 Parking Turnover Surveys

Turn-over surveys were conducted in order to establish the level of compliance to the posted parking time limits within the Eastland and Centro Shopping Centre car parks. Table 5.2 provides a summary of the turnover of the off-street parking spaces surveyed during the *Stage 1 - Parking Study*. Overall, the compliance to parking time limits was found to be reasonable.

It is understood that Eastland has identified that some rail commuters regularly use their car parking areas, which has led to Eastland closing car parks until 9.00am during the peak Christmas shopping period. Commuters are likely to have accounted for a modest proportion of motorists observed over-staying the 4 hour time limit in Eastland, however it was also observed that a high proportion of visitors to both Eastland and Centro stayed for less than 1 hour and the majority of motorists complied with the posted parking time limits.

Table 5.2 Summary of Off-street Car Parking Turnover

Location	Restriction	Weekday Turnover			Saturday Turnover		
		Less than 1 hour	Between 1 & 4 hours	Greater than 4 hours	Less than 1 hour	Between 1 & 4 hours	Greater than 4 hours
Eastland Shopping Centre	6P	6%	26%	68%	16%	20%	64%
	4P	47%	36%	18%	49%	33%	18%
	2P	38%	26%	37%	63%	26%	12%
Centro Shopping Centre	4P	32%	57%	12%	60%	40%	0%
	3P	55%	30%	15%	84%	14%	2%
	2P	34%	37%	30%	83%	18%	0%
	1P	70%	29%	1%	98%	2%	0%
Ringwood Market	2P	40%	31%	29%	87%	13%	0%

Turn-over surveys were also conducted in order to establish the percentage of spaces occupied by a single vehicle throughout the entire day. Table 5.3 provides a summary of the turnover of the commuter parking spaces surveyed during the *Stage 1 - Parking Study*. As anticipated a high percentage of spaces were occupied by a single vehicle throughout the entire day, as Melbourne CBD workers are the main users of these car parks.

Table 5.3 Summary of Weekday Commuter Car Parking Turnover

Location	% of spaces which had vehicle parked all day
Ringwood Station	80%
Heatherdale Station	80%

It is noted that there is little on-street parking stock available throughout the study area. It comprises a total of 6% of all parking spaces. The modest occupancy levels recorded in conjunction with excellent turn-over compliance suggests that this small number of parking spaces is operating effectively and is primarily used by legitimate short-term visitors to abutting business premises.

5.4 Commuter Surveys

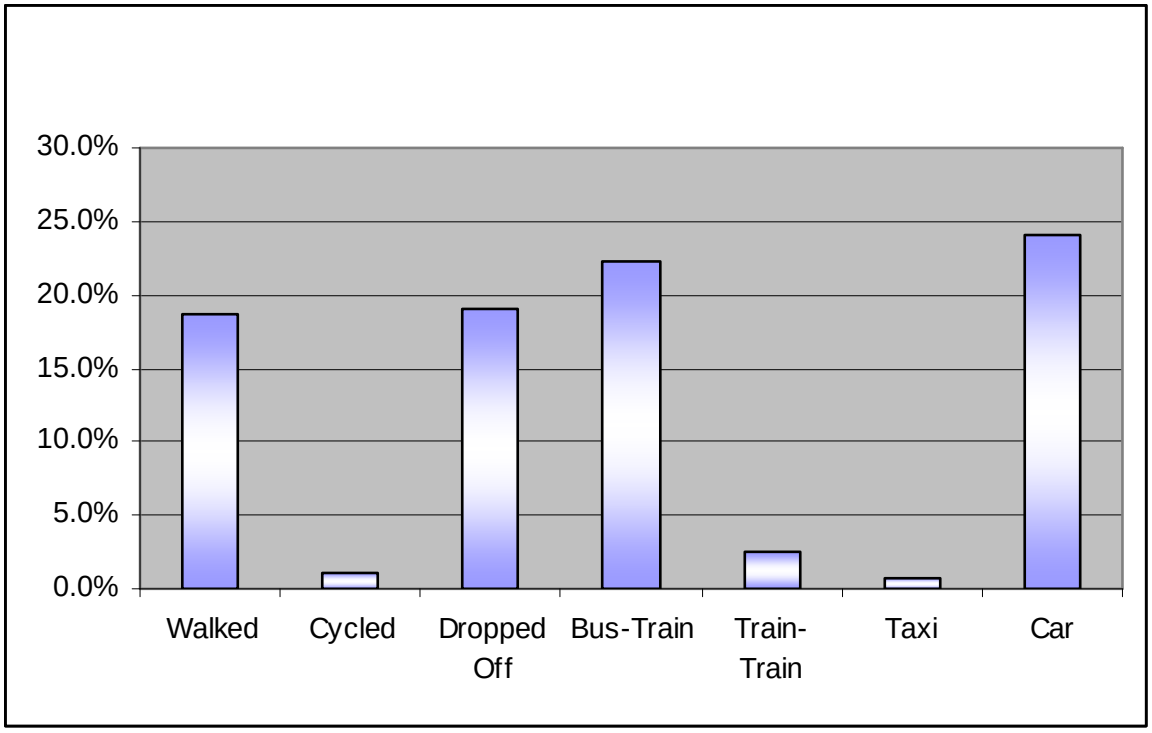
5.4.1 AM Train Commuter Surveys

In November 2007, commuter intercept surveys were undertaken at Ringwood Station. The main purpose of the survey was to gauge the potential impact of a future loss of commuter parking in the area. In addition, the survey sought to gather information in relation to commuter type and travel patterns and use of sustainable travel modes.

AM surveys were completed from 7.30am to 9.30am. The most common mode of transport to arrive at the station was private car (24% - as driver). In addition, 19.1% were dropped off by car. Around 45% of those surveyed did not arrive by car and included 22.3% using buses and 18.7% walking.

The overall proportion of commuters arriving at Ringwood Station via private car is likely to have been higher had the surveys started at an earlier time. This would have included over 250 motorists who had already filled up the main Ringwood Station car park and nearby Thanet Court car park by 7.30am.

Figure 5.1 Mode of arrival during AM Peak



Note: The train-train arrivals may be under-represented due to location of survey.

Of the 24% of commuters who drove to the station, parking locations were given as follows:

- Surrounding railway station commuter car parks - 13%
- Wider Ringwood retail area (including Eastland) - 51%
- Local streets - 18%
- Bottle shop site - 9%
- Church on Station-street - 3%
- Private property (e.g. friend/family) - 6%

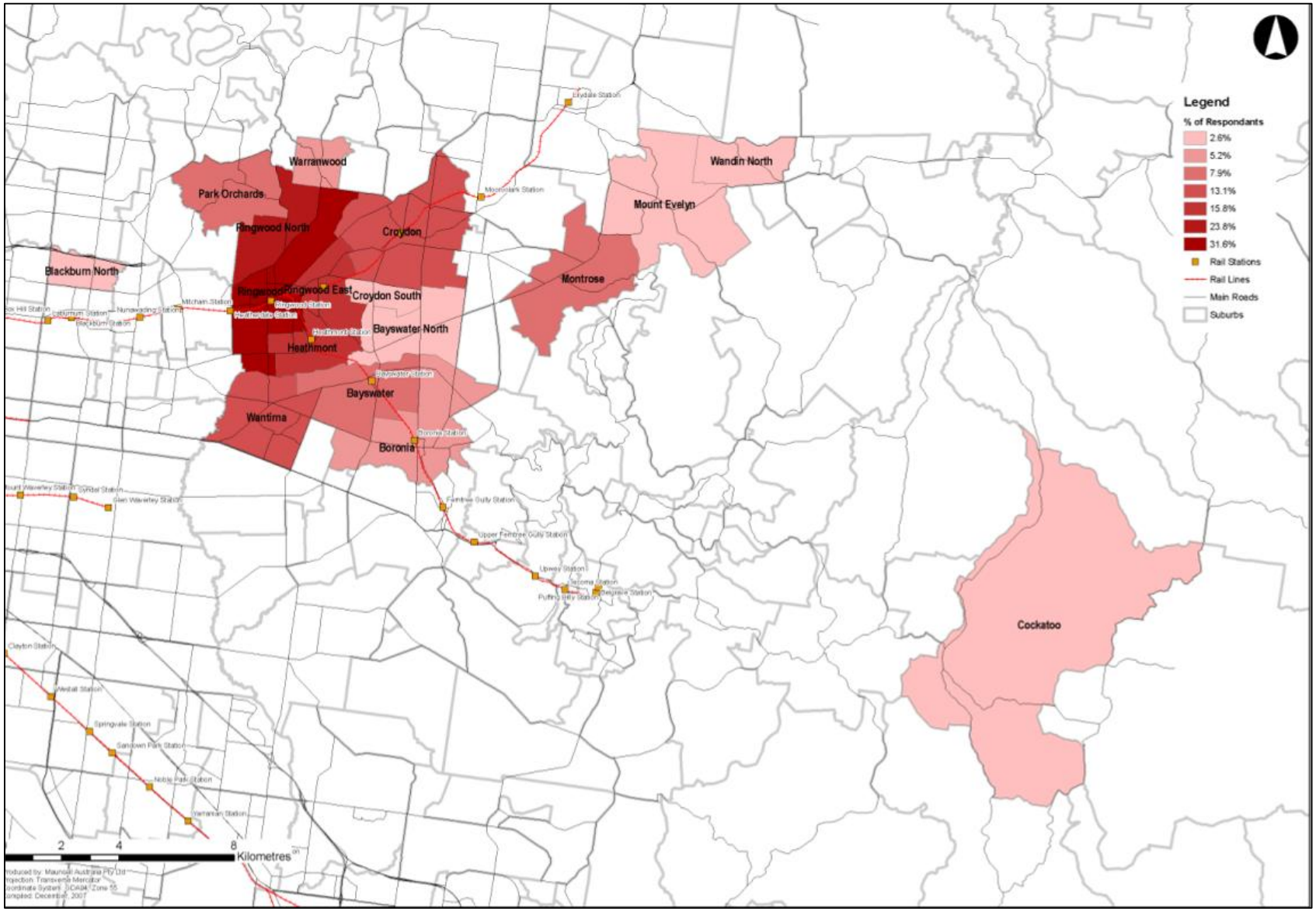
5.4.2 PM Train Commuter Surveys

Destination

Commuters alighting from trains were surveyed between 4pm and 7pm as to their ultimate destination in order to access the potential for them to adopt more sustainable travel modes. The destination of surveyed commuters alighting at Ringwood Station is illustrated in Figure 5.2.

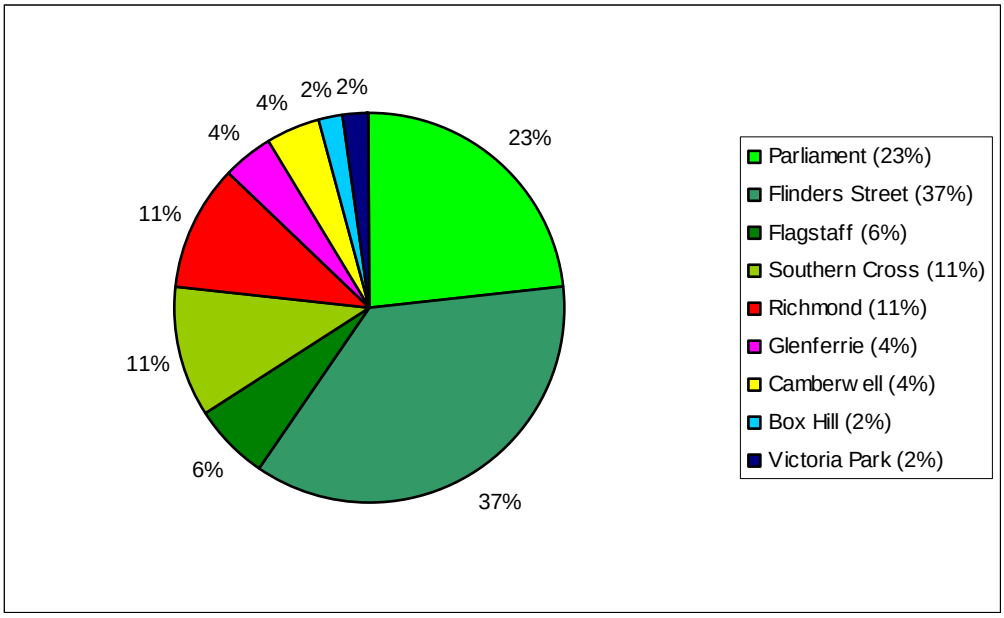
Analysis indicates that 85% of commuters live within 5 kilometers of the station. It is also noted that all destinations, except Bayswater, Boronia, Wandin North and Cockatoo, are all serviced by bus routes.

Figure 5.2 Commuter Destination



Starting Point (railway station at which the commuters boarded)
Commuters were asked which station they boarded the train at in order to gauge the feasibility of them utilising other travel modes, with particular focus on the possibility of them choosing to drive the entire journey should parking at Ringwood station be removed. The breakdown of which train stations commuters boarded the Ringwood bound train is illustrated in Figure 5.3. As illustrated, below 77% of commuters who did answer this question boarded at a train station within the city loop. The main destination for rail commuters is the CBD where parking is comparatively scarce and more expensive.

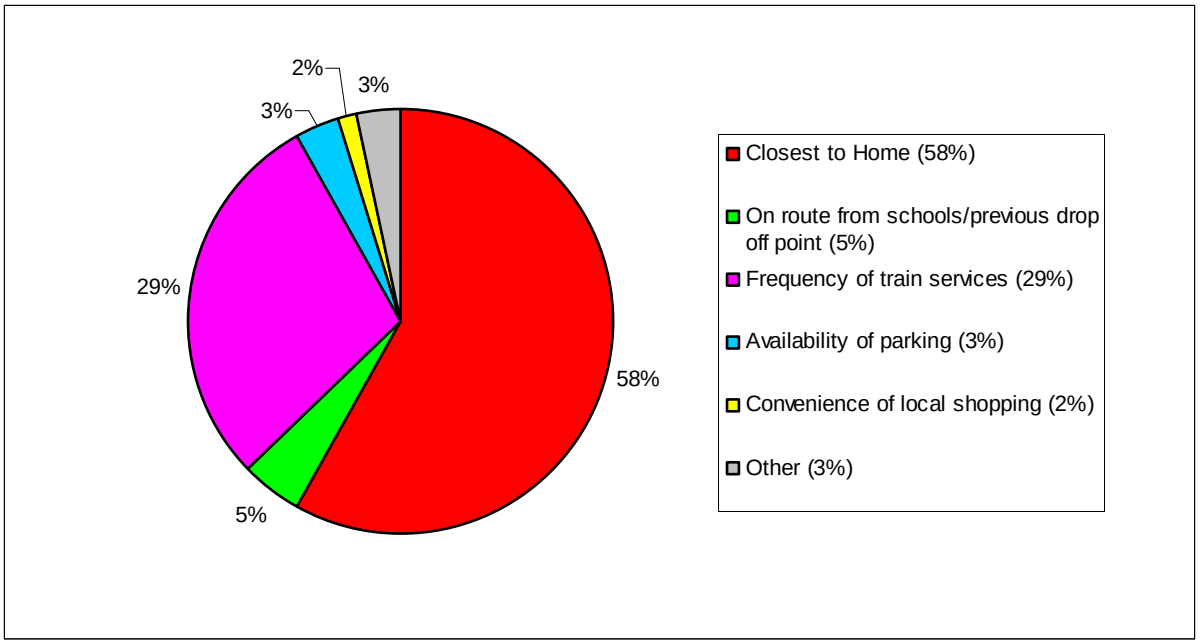
Figure 5.3 Station at which alighted Ringwood bound train



Main Reason for Commuting to/from Ringwood Station
The survey also explored motivation for commuting to/from Ringwood station to ascertain the importance of parking availability at the station. Figure 5.4 summarises the various reasons commuters gave for travelling to/from Ringwood Station.

The main reason (57%) for commuters using Ringwood Station was proximity to their home. The second most common reason was the frequency of train services from Ringwood (29%). Other factors were that Ringwood was on route from the commuter's previous drop off point, the availability of parking and the convenience of local shopping. The availability of parking at Ringwood station did not feature strongly as a motive for respondents choosing to commute from Ringwood.

Figure 5.4 Main Reason for Commuting to/from Ringwood Station



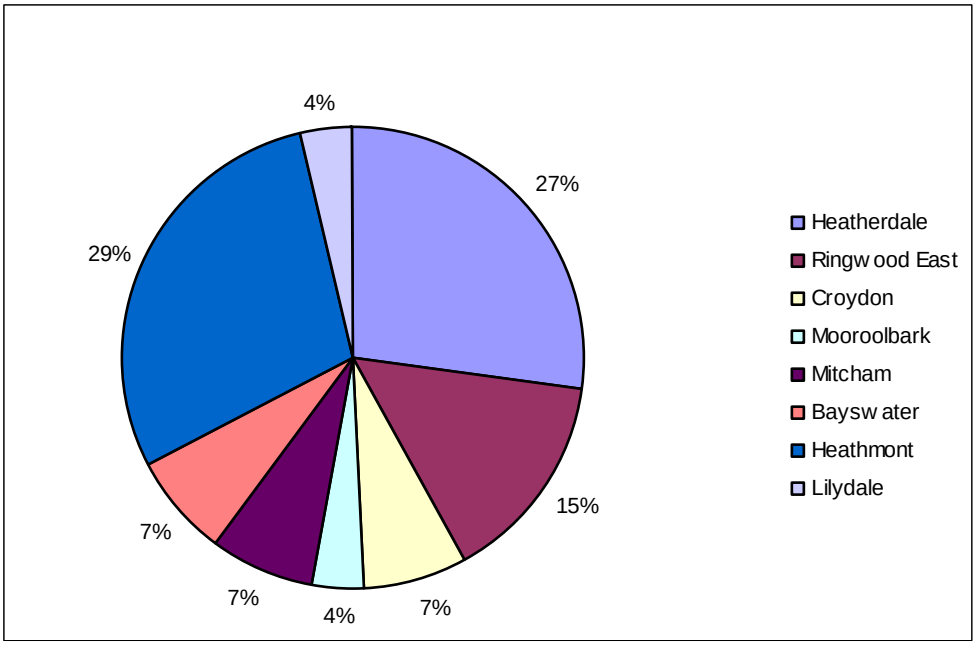
What would commuters do if parking was removed from Ringwood Station

In order to gauge the impact of a potential reduction in parking capacity at the station, commuters were asked what they would do if parking was not provided at Ringwood Station. The following responses were given:

- Park somewhere else within Ringwood - 12%
- Park at another Station - 79%
- Drive to work - 4%
- Other:
  - Walk - 1%
  - Bus - 4%

Of the 12% of respondents who said they would park in the station vicinity, some respondents suggested that they would park within the Eastland car park, whilst others stated that they would park within local streets in proximity to the station. Of the 79% of commuters who said they would choose to park at another Railway Station, Figure 5.5 indicates the preference for alternative stations.

Figure 5.5 Alternative station choice if parking was removed at Ringwood



Incentives to Encourage Sustainable Transport Modes

In concluding the survey, respondents were asked what incentives could be introduced to encourage increased use of sustainable transport modes for the journey to the station. The most common suggestions were:

- Improve the frequency of the bus services.
- Improve the reliability of the bus service.
- Increase the hours of operation for the bus service.
- Provision of bike lockers at the station.
- Improve the bus/rail integration.
- Offer financial incentives.

Despite statistics presented in Figure 5.4 which indicated that parking was not respondents "main reason" for frequenting Ringwood Station, it is evident that removal of station parking will significantly impact commuters travel arrangements.

6.0 Ringwood Parking Strategy

6.1 Strategy Aims

The Ringwood Parking Strategy reviews current access and parking management arrangements and recommends a series of integrated measures to improve parking supply, whilst at the same time reducing car dependency by encouraging usage of more sustainable forms of transport.

The Strategy has three main aims:

- Improve management of on-street and off-street car parking to achieve optimum use and turnover of car parks.
- Maximise the availability and awareness of existing parking by better managing demand and encouraging alternative transport modes such as walking, cycling and public transport.
- Manage the provision of off-street parking for new and existing land uses.
    - Encourage good design principles to minimise the amount of land used by car parking at ground level.

6.2 Strategy Policies and Actions

The following section discusses specific issues which Council must address to ensure the realisation of Ringwood as a thriving CAD. Parking Strategy policies addressing each issue are outlined and, where appropriate, Council's intended actions to help achieve the objective of the policies are included.

6.2.1 On-Street Parking Management

As Ringwood develops, the CAD will progressively incorporate higher density development in land abutting the road network which will likely result in an increase in demand for on-street parking. To ensure that on-street parking continues to service the parking needs of land uses fronting the road network, Council considers it necessary to provide a strategic direction for future provision and management of on-street parking facilities.

Currently, on-street parking accounts for approximately 6% of the total parking within the CAD area. The findings of the Stage 1 Parking Study indicate that the occupancy of on-street parking spaces is generally modest with an overall peak weekday occupancy of approximately 44%.

This modest parking occupancy may be a result of:

- Difficulty in parking on Maroondah Highway due to high traffic flows.
- A significant level of conveniently located off-street parking stock.
- Popularity of larger shopping centres within Ringwood.
- Loading Zones are generally under-utilised.

However, the modest occupancy rate does not imply that on-street parking does not play an important role in servicing the parking needs of residential properties and small scale retail and business premises abutting streets in the Ringwood CAD area. It is noted from the Stage 1 Parking Study that there are specific locations, particularly on minor streets within the CAD area where there is a high demand for on-street parking, whilst the excellent compliance with time restricted parking suggests that there is a continual turnover and frequent usage of on-street parking spaces.

On-street car parking spaces will not be able to accommodate all short term, medium term and long term parking demand. Therefore a key aspect of the future management of on-street parking is the

optimisation of on-street parking restrictions to ensure that time restricted and all day parking areas are provided in appropriate locations to benefit all stakeholders.

As in many urban centres, on-street parking in Ringwood is vital to the competiveness of small scale retail and business premises given the convenience associated with providing parking close to these destinations. Generally, retail and business opportunities are optimised by encouraging regular turnover of spaces, whilst maintaining a high occupancy of parking close to retail outlets. As such, the provision of medium or long term parking in the vicinity of smaller scale retail outlets may impact these businesses by restricting the number of customers who can access the retail or business premises. Likewise, on-street parking plays an important role in servicing the visitor parking needs of residential properties abutting streets.

Table 6.1 outlines the parking requirements for these key land uses in Ringwood CAD.

Table 6.1 On-street Parking Requirements

Street Frontage	Parking requirement
Residential	Short term parking for visitors and essential services (i.e. meals on wheels, home help, medical services and trades people) to access residential addresses.
Retail	Requirement for continual turnover of spaces whist maintaining high occupancy close to retail outlets. This will encourage spending and allow for easy transportation of purchases and delivery of goods.
Office	Parking is required to allow for business meetings and delivery of goods.

The introduction of short term time based restrictions is likely to:

- Encourage turnover of customers to retail and business premises through the provision of short term parking.
- Cater for the short term visitor parking needs of residential properties, with longer term visitor parking needs catered for by a residential visitor permit system (refer to Strategy Policy 5).
- Ensure that medium term and long term parking demand is catered for by off-street private and Council car parks.
- Ensure that all on-street parking is utilised efficiently. Generally, compliance with short term parking restrictions tends to be very good. This was found to be the case in Ringwood during the Stage 1 Parking Study with rarely any instances were vehicles were noted to be overstaying short term time limit.

Currently, on-street parking restrictions within the CAD area generally operate between 8.30am and 4.00pm, which is reflective of weekday retail and business opening hours and therefore the busiest hours of operation. Council's vision to promote evening activities, such as restaurant dining, within Ringwood CAD will see an increased demand for on-street parking during the evening. As such, it may be a future requirement to extend the operating hours of on-street parking restrictions to deter long term parking of hospitality staff meaning that patrons can access parking close to their destination.

The on-street parking management policy to be adopted by Council is set out in Strategy Policy 1.

Strategy Policy 1: On-Street Parking

Council will ensure that on-street parking is efficiently utilised and best services the parking needs of land uses fronting the road network.

Actions

- As Ringwood develops as a CAD, Council will consider the implementation of appropriate time based on-street parking restrictions that best reflects the needs of the land uses fronting the road network.
- Council will seek that medium and long term parking demand is catered for by off-street private and publicly owned parking facilities.
- In consultation with local stakeholders, Council will periodically review parking restrictions with a view to possibly altering operating hours or restriction type where demand requires.
- Council will periodically monitor the utilisation of on-street parking spaces and will investigate measures to further manage on-street parking should occupancy levels consistently exceed 85%.

6.2.2 Public Off-Street Parking

Given the excellent connections to the metropolitan arterial road network particularly since the opening of EastLink, Ringwood will continue to attract a significant number of car-based visitor trips. With the planned development of densely concentrated, higher intensity uses, Council recognise that some land uses, particularly within the expanded business and commercial sector, will not always find it possible to accommodate visitor parking demand on-site. Therefore it is important that there is an appropriate provision of off-street parking to cater for any medium to long term visitor parking demand that cannot be accommodated on-site.

There are 7 off-street public car parks within the Ringwood CAD area, all of which are ground level facilities. In the context of a higher density built environment within a CAD, ground level parking is seen as an inefficient use of land, which could alternatively be used to create and promote a pedestrian friendly town centre environment. Therefore, where feasible, Council will seek that any future provision of public parking facilities is not provided for at ground level, particularly in front of buildings in the area between the building and the road reserve.

The findings of the Stage 1 Parking Study indicate that throughout most of the day, the weekday occupancy of public off-street parking spaces is generally modest, although higher occupancy levels were observed during the lunch time peak (it is noted that car parks servicing public service buildings tend to have reasonably high weekday occupancy levels throughout the day). During the weekend, the occupancy of public off –street car parks is much lower. Table 6.2 details an inventory undertaken in public off-street car parks within the CAD area (refer to Figure 6.1 for car park location).

Table 6.2: Inventory of Public Off-Street Car Parks

Car Park Location	No. of Spaces	Directional Signage	Connectivity to Railway Station	Connectivity to Town Centre	Safety/ Security	Potential to expand
1*	142	Poor	Good	Poor	Poor	Yes
2	10	Poor	Poor	Good	Good	Limited
3	89	Poor	Poor	Good	Good	No
4*	26	Poor	Poor	Good	Good	Limited
5	41	Poor	Good	Poor	Average	No
6	14	Poor	Poor	Poor	Poor	No
7*	40	Poor	Poor	Poor	Good	No

*Council car parks

Table 6.2 indicates that the observed modest parking occupancy in public off-street car parks may be a result of:

- Visitors to Ringwood prefer to park in retail car parks to be close to retail facilities.
- Poor pedestrian linkages between public car parks and activity centre.
- Lack of knowledge of parking facilities due to limited signage.
- Perceived safety and amenity issues.
- Public car parks located within walking distance of rail station are used as commuter overspill car parks during weekdays and therefore have lower occupancy levels on weekends.

Council controlled car parks contain approximately 362 parking spaces which equates to around 5% of the total off-street parking stock. The small percentage of public parking supply limits the influence Council has over the future direction of parking particularly with regard to:

- Future regulation of parking particularly with regard to provision of an appropriate level of medium to long term parking.
- Using parking supply as a demand management tool.

The inventory of public off-street car parks has indicated that with the exception of the car park located off Murray Place (car park 1), there is limited potential to increase the number of parking spaces in these car parks. With regard to car park 1 there is potential to multi-deck part of the car park to increase parking stock. However the proximity and good linkages to Ringwood Rail station may encourage rail commuters to use this car park. In car parks 2 and 3, opportunity exists to reconfigure the layout of parking to increase the number of spaces in these car parks. However, the increases in parking spaces in these car parks will not represent a material growth in public off-street parking.

A possible method of increasing public parking stock could be through the acquisition of a proportion of existing or future private off-street parking. This could involve Council leasing or purchasing areas of off-street parking or receiving parking stock in return for constructing support facilities such as improved pedestrian linkages. An evaluation of cost effectiveness and legal issues will be conducted by Council before pursuing these options.

Council also recognise that the peak parking demands for many activities within the CAD tend not to coincide. It has been shown in the Stage 1 Parking Study that the peak demand for commuter parking is clearly on weekdays. Likewise, the peak parking demand for retail land uses is at the weekend whilst the peak parking demand for restaurants and bars is likely to be evenings. As a result, there are often a considerable number of parking spaces within the CAD that are vacant at any one time.

To address this issue and efficiently manage the use of existing parking, the uptake and promotion of shared and consolidated parking is becoming more commonplace in town centre environments. As Ringwood develops, a key objective for Council in the management of future parking in the CAD will be to identify how shared and consolidated parking can be incorporated either through purpose built parking facilities or within existing or future development.

The policy relating to public off-street parking to be adopted by Council is set out in Strategy Policy 2.

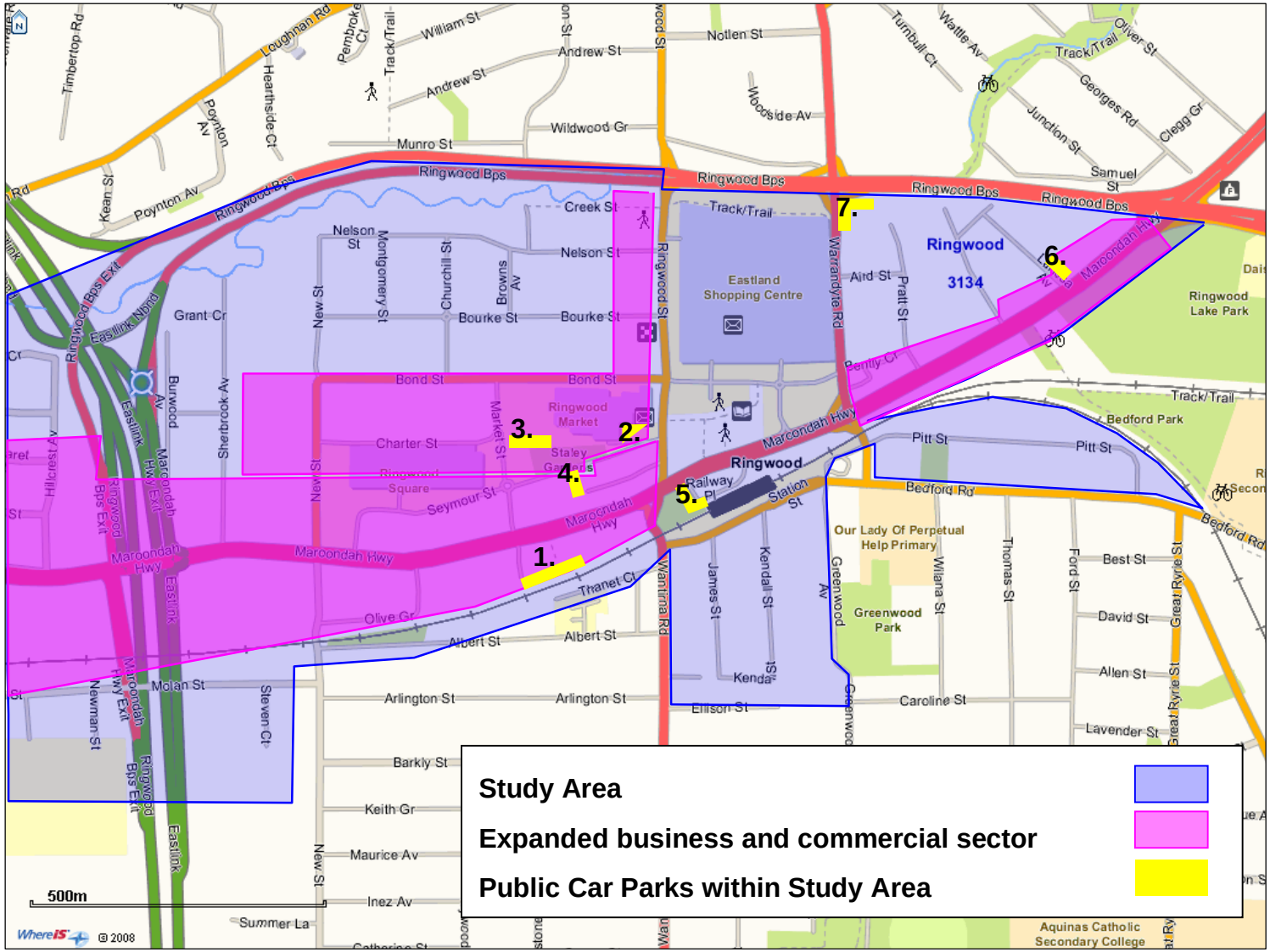
Strategy Policy 2: Public Off-Street Parking

Council will ensure that there is an appropriate level of medium and long term parking provided in off-street parking facilities.

Actions

- Council will undertake regular maintenance of Council owned off-street car parks.
- Council will investigate means of improving the safety and amenity of Council owned off-street car parks.
- Where feasible, Council will increase publicly provided parking stock either through the expansion of existing facilities or through acquiring a proportion of parking provided by new developments.
- Council will improve the promotion of existing Council owned off-street car parks.
- Council will seek that any future provision of public parking facilities is not provided for at ground level, particularly in front of buildings in the area between the building and the road reserve.
- Council will undertake a Feasibility Study, by CAD precinct, to identify specific opportunities to increase publicly provided parking stock and examine opportunities for shared or consolidated parking via purpose built facilities or within existing or future development.

Figure 6.1: Location of Public Off-Street Car Parks in Ringwood CAD



6.2.3 Private Off-Street Parking

Ringwood will progressively incorporate the development of a significant increase in a variety of development types which in turn will see a greater number of people visiting the CAD area. Given the limited stock of publicly available on and off-street parking, the majority of parking demand associated with this increase in development will need to be accommodated by these developments off-street.

Privately owned and operated off-street parking accounts for approximately 95% of publicly available parking supply within Ringwood CAD. The vast majority of this parking is provided within the Eastland Shopping Centre which accounts for approximately 73% of the total private off-street parking. There is also a reasonably significant level of parking provided within the Centro Shopping Centre / Ringwood Market area which accounts for 15% of the total private off-street parking supply whilst the balance of private off-street parking is provided within car parks servicing smaller and standalone retail outlets.

Eastland Shopping Centre is currently and will continue to be the dominant trip attractor within the Ringwood CAD area. Currently, the shopping centre houses 76,922 square metres of retail floor area and 4,878 parking spaces. The findings of the Stage 1 Parking Study indicate that:

- There was significant spare weekday capacity within Eastland Shopping Centre.
- Eastland experienced significantly higher parking occupancies during the Saturday survey.
- During both the weekday and weekend surveys the longer term (6 hour) parking areas were generally under-utilised.
- There is less compliance with time based parking restrictions in comparison to on-street parking.
- The shopping centre car park is being used to some degree by visitors and patrons of land uses located close to Eastland including rail commuters and medium term visitors of the nearby magistrates court.

All car parks servicing the Eastland Shopping Centre are subject to time restrictions. A review of parking restrictions currently in operation indicates that:

- Parking bays closest to the main entrances to the shopping centre are subject to short-term time restrictions.
- Longer term parking areas are located in remote areas of the car park.
- Areas of parking abutting or close to other land uses such as the ground level parking opposite Ringwood rail station are subject to short-term time restrictions.

Council is satisfied that the existing parking restrictions in operation in the Eastland Shopping Centre discourage long term commuter parking both by shopping centre employees and perhaps other land uses within Ringwood using this parking resource for all day parking. This is seen as important as generally employees are most likely visitors to the Ringwood CAD area to change to more sustainable forms of transport. Additionally, Council considers that opportunity may exist to improve the management of the car park by increasing the number of short-term parking bays within the vicinity of shopping entrances. This would have the benefits of:

- Encouraging turnover of customers.
- Ensuring that part-time or short stay staff utilise the low occupancy long term parking areas.
- Potentially reducing visitors circling car parks in search of conveniently located short term spaces.

Eastland is set to undergo significant expansion including a net increase in retail floor area of 47,000 square meters, the addition of a 150 room hotel facility and 15,888 square meters of office space. On-site parking provision is also set to increase by around 2,290 spaces.

The additional parking spaces are to be established by the:

- Construction of 2 basement parking levels extending under the town square area;
- Creation of additional levels in the south west quadrant of the existing car park;

- Retention of the existing eastern multi deck car park.
- Construction of up to 1,000 off-site parking spaces at the Ringwood Market site.

Whilst the increase in parking at Eastland Shopping Centre may not equate to an overprovision, Council will require that new car parking and travel to the shopping complex is managed with a view to curbing unabated growth in car travel by encouraging more sustainable means of travel. This will apply to all new developments within the CAD area and can be achieved by:

- Setting car parking restrictions that discourage long-term commuter parking.
- Undertaking regular enforcement of parking restrictions.
- Encouraging more efficient use of cars by staff and visitors to a development through the promotion of travel by more sustainable means of travel. This could be achieved through the implementation of workplace and education travel plans which may include the uptake of the following travel initiatives:
    - Subsidised public transport tickets, particularly during peak periods. This would reduce long term parking by staff and free up parking spaces for additional customers.
    - Provision of information on public transport, cycling and walking facilities.
    - Car pooling and provision of bicycles for staff use.
    - Provision of adequate changing and washing facilities.

With the exception of the Eastland, Centro and Seymour Street multi-level car parks, private off-street car parks within the CAD are generally ground level facilities. In the context of a higher density built environment within a CAD, ground level parking is seen as an inefficient use of land, which could alternatively be used to create and promote a pedestrian friendly town centre environment. Therefore, where feasible, Council will seek that any future provision of private off-street parking is not provided for at ground level, particularly in front of buildings in the area between the building and the road reserve.

As previously recognised, peak parking demands for many activities within the CAD tend not to coincide meaning that there may be situations where a number of parking spaces within the CAD that are vacant at any one time. The sharing of any excess parking during non-peak periods between one activity with another is seen by Council as a key tool in managing future parking in the CAD and ensuring that there is not an over supply in parking. In particular, Council will encourage and support development that potentially enables any excess parking during non-peak periods to be made available for all-day commuter parking.

Council consider that there is opportunity to improve access to and within private off-street car parks. One means of doing this is through the provision of directional signage guiding motorists to their intended destination (i.e. car park or certain type of parking space within car park). The provision of directional signage has an important role to play in avoiding unnecessary circulation both within the Ringwood CAD area and within the car parks themselves and ensuring that parking facilities are utilised to their optimal potential. Council's policy relating to the improvement of existing off-site directional signage is detailed in section 6.2.10 of this Parking Strategy. However, for all new developments over a certain threshold, Council will require that these developments provide adequate directional signage to their parking facility. This will benefit both the development by potentially attracting custom and optimising parking and will also benefit the wider CAD community by contributing to a reduction in unnecessary congestion caused by motorists searching for parking spaces.

The policy relating to private off-street parking to be adopted by Council is set out in Strategy Policy 3.

Strategy Policy 3: Private Off-Street Parking

Council will require that privately operated off-street car parks servicing large scale developments are managed in an appropriate way to help deliver the Ringwood CAD objectives.

Actions

- Council will work alongside employers to encourage the uptake and implementation of travel initiatives such as Travel Plans to promote sustainable transport options.
- Council will generally seek that parking restrictions at privately operated off-street car parks discourage long-term commuter parking by employees, however, where there is surplus parking, there may be opportunities for the car park operator to offer these spaces to the public for long term (commuter) parking.
- Council will encourage the increased enforcement of privately operated off-street car parks.
- Council will seek that any future provision of private off-street parking is not provided for at ground level, particularly in front of buildings in the area between the building and the road reserve.
- Council will request that all new developments provide directional signage to car park facilities.

6.2.4 Rail Commuter Parking

A fundamental aspiration of the CAD vision is to increase accessibility to and from Ringwood. One way of achieving this aspiration is through the provision of high quality public transport that provides an excellent level of service to patrons and connectivity between different travel modes and destinations.

As part of the CAD scheme, the State Government are proposing to redevelop Ringwood Rail Station as a mixed use primary node within the CAD with clear activity linkages to the adjoining town centre. With the redevelopment of the Rail Station, opportunity exists to review the level and management of rail commuter parking with a view to encouraging the greater use of public transport and reduce car dependency. In line with this, Council supports the State Government's current proposal not to provide any increase in commuter parking at Ringwood Station.

The findings of the Stage 1 Parking Study indicate that both formal and informal commuter car parks within the vicinity of Ringwood Rail Station and nearby Heatherdale Rail Station are heavily utilised. In addition to this, there is evidence to suggest that once the rail commuter car parks are full, commuters are prepared to find alternative locations such the Eastland Car Parks and nearby residential streets to park their vehicles. The extent to which the demand for rail commuter parking exceeds available car parking spaces is not known.

Council recognises that in the short to medium term car travel will remain an important mode of transport to and from Ringwood Rail Station. As such it will be a requirement to cater for commuter parking needs and provide safe passage between designated parking facilities and the station. In this regard there is potential to improve existing parking facilities whilst still meeting the State Government desire not to increase parking at Ringwood Rail Station. For example, there is potential to formalise existing commuter parking that occurs on the western end of Thanet Court and explore the potential to promote shared parking whereby excess parking in privately operated car parks is made available for all day commuter parking.

The Stage 1 Parking Study identified that there is potential to provide additional parking capacity at one of the informal car parks servicing Heatherdale Rail Station. In principal, Council will support proposals to increase and improve car parking at Heatherdale Rail Station or indeed at any other rail station within the municipality where there is an identified need.

With increasing fuel prices and envisaged improvements to non-car travel modes, there is a greater propensity in the long term to potentially use parking provision as a demand management tool to promote sustainable transport behaviour.

During the redevelopment of the Rail Station precinct, construction will need to be managed so that sufficient parking opportunities are in place to ensure that commuter parking does not overspill into neighbouring residential areas.

The commuter parking policy to be adopted by Council is set out in Strategy Policy 4.

Strategy Policy 4: Rail Commuter Parking

Council supports the State Government's proposal not to provide any increase in commuter parking at Ringwood Station. Council will explore opportunities to improve existing parking infrastructure at informal car parks servicing Ringwood Rail Station to enhance the safety and efficiency of existing parking facilities.

In principal, Council will support proposals to increase and improve car parking at Heatherdale Rail Station or indeed at any other rail station within the municipality where there is an identified need.

Council will support and actively encourage schemes that help reduce the demand for parking at Ringwood Rail Station including improvements to non-car transport infrastructure and services and kiss and ride facilities.

Actions

- Council will support infrastructure improvements to enhance the efficiency and safety of informal commuter parking areas located off Station Street and Thanet Court.
- Likewise, Council will support the upgrade and formalisation of the commuter overspill car park at Heatherdale Station located to the south of Molan Street.
- Council will encourage infrastructure improvements that provide safe, convenient and direct pedestrian and cycle access to both Ringwood and Heatherdale rail stations.
- Council will support measures that enhance multi-modal travel information for passengers.
- Council will encourage and support development that potentially enables any excess parking during non-peak periods to be made available for all-day commuter parking.

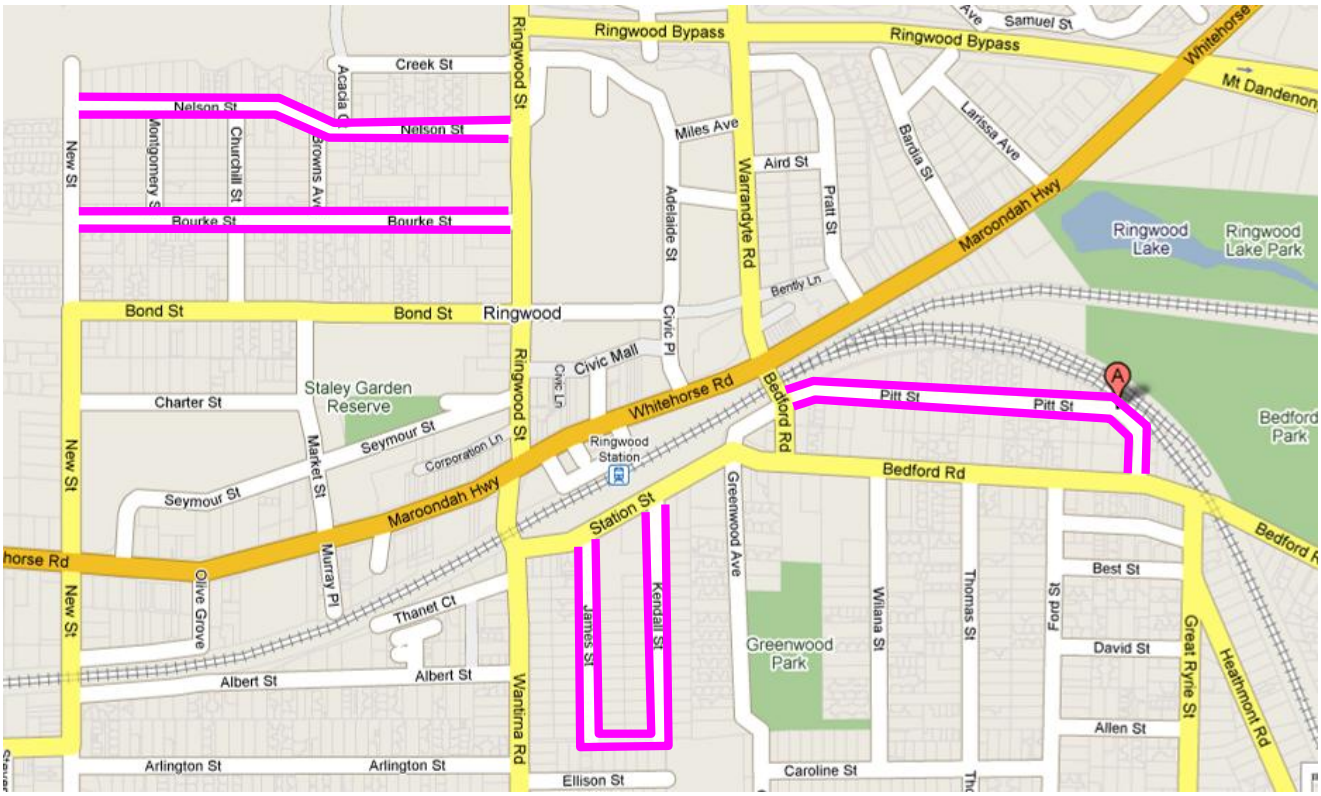
6.2.5 Residential Parking

The development of Ringwood as a CAD will see an increase in the density and expansion of the built environment and an intensification in the level of activity throughout the area in general. With more people living and working in central Ringwood there is likely to be a resulting increase in parking demand both within the CAD boundary and surrounding residential environs.

Council currently provides priority parking to residents in a limited number of streets within the Ringwood CAD area where there is a high demand for on-street parking by competing land uses. Priority parking is provided in these streets to protect residents and their visitors either from a potential overspill of commuter parking at Ringwood Rail Station or from visitors to the central Ringwood commercial and retail area wishing to avoid short term parking restrictions on adjacent streets.

Resident Parking Permits are currently available in the streets shown in Figure 6.2. Under the current scheme, Council restricts each household to one permit only and this is provided free of charge. Short term visitor parking is permitted within these streets.

Figure 6.2: Residential Streets in Ringwood where Parking Permits are currently available



Council sees an expanded residential parking scheme as an important mechanism to:

- Protect the safety and amenity of residential areas surrounding the CAD.
- Encourage the use of alternative modes of transport to and from Ringwood CAD resulting in lower car dependency.

However, to facilitate the fair and equitable use of on-street parking spaces, the expansion of the existing resident priority parking scheme in streets which are anticipated to experience growth in parking demand would need to be subject to the following conditions:

- One (1) on-street parking permit will be issued per single-lot residential property free of charge to existing dwellings.

- Permits will not be issued to dwellings constructed thereafter with development parking requirement provided on-site.

Council recognises the need to facilitate the parking requirements of genuine visitors to residential areas (i.e. family, friends and service providers such as home help, medical services, meals of wheels and tradespeople).

A review of residential parking schemes operated by other Councils within metropolitan Melbourne has indicated that visitor parking is generally accommodated through the issue of multi-use or visitor permits.

Typically, a multi-use permit is issued with no vehicle registration specified on the permit. This allows the permit holder to transfer the permit from vehicle to vehicle and therefore can be used by visitors when not being used by the permit holder as a resident parking permit. This system has the advantage of reducing the overall number of permits needed to be issued by Council. However, the multi-use permit system is open to potential misuse in situations where residents sell on their permits to commuters who wish to park in the area or by residents who continue to use the permit even when they have moved from the area. This is largely attributed to the fact that for privacy reasons, the permit cannot contain details of the address of the resident holding the permit, and consequently, attempts to validate the use of an individual permit is not effective.

A visitor permit or voucher scheme is an alternative system used by a number of Councils in metropolitan Melbourne to address visitor parking needs. Under this system, time restricted visitor permits or vouchers are purchased by residents and can be used by visitors in the same way as residents use their resident permits. In most systems currently in operation, residents are required to apply for a new permit or voucher book periodically (usually every 3 to 12 months) to prevent people who have moved out of the suburb from continuing to use their permits. A range of visitor vouchers tend to be available covering short stay (1-2 hour) and longer stay (daily or weekend) parking needs. Current visitor permit schemes in operation tend not to have expiry dates meaning that residents can 'bank up' unused permits for special occasions such as parties. Visitor parking permits can usually be ordered online, by post or picked up from the local Council administration offices.

The review of residential parking schemes operated by other Councils has identified the benefits of a consolidated administrative system that allows a designated Council department to:

- Check the eligibility of permit applications.
- Store and retrieve permit holders details.
- Issue resident and visitor permit renewal notices.
- Log instances of infringements and issue infringement notices.

The possible development of an electronic system detailing the above information is seen as a simple and efficient reference tool for sharing and updating parking related information between various Council departments.

The residential parking policy to be adopted by Council is set out in Strategy Policy 5.

Strategy Policy 5: Residential Parking

In residential streets which are shown to be impacted from an overspill of parking from non-residential uses, Council will ensure that residents are provided with priority parking.

Actions

- Council will support the expansion of the existing resident priority parking scheme in streets which are shown to experience over-spill parking.
- Council will investigate the development of a consolidated electronic system operated by a designated Council department to administrate the resident permit scheme.
- Council will investigate and implement a suitable permit system for genuine visitors to residential areas.
- Council will generally seek that parking generated by new and existing business premises in predominantly residential areas is catered for on-site or within publicly owned off-street car parks.

6.2.6 Connectivity of Parking Facilities

The development of Ringwood as a CAD will see the strengthening of the retail and commercial role of Ringwood through a consolidated and expanded retail core embracing Eastland, the Town Centre and allied areas to the west of Ringwood Street such as Ringwood Market.

Irrespective of improvements to pedestrian and cycling connectivity, some visitors to Ringwood CAD will continue to travel between different precincts within the Ringwood CAD by car. Currently there is a lack of connectivity between car parks in the different Ringwood CAD precincts. If choosing to drive between the Eastland Shopping Centre Precinct and the Ringwood Market / Ringwood Square precinct(s) vehicles are likely either to travel via Maroondah Highway or through the Charter Street intersection with Ringwood Street. This current practice puts additional pressure on the road network and reduces pedestrian and cycling amenity.

With the development of new retail and commercial land uses in the CAD, opportunity exists to provide greater permeability and connectivity between existing and future car parks particularly where there is potential to grade separate car parking connections from surface level vehicular, pedestrian and cyclist movements. The careful location and distribution of car parks will help redefine Ringwood as an attractive, safe and enticing place to live, work and play.

The policy relating to the connectivity of parking facilities to be adopted by Council is set out in Strategy Policy 6.

Strategy Policy 6: Connectivity of Parking Facilities

Council will promote improved connectivity for vehicles between existing and future car parking facilities.

Actions

- Council will encourage the owners of Eastland and Ringwood Market car parks to consider providing a link underneath Ringwood Street between the existing underground car park at Ringwood Market and the future underground car park at proposed southbound extension of the Eastland shopping mall.

6.2.7 Construction Zones

The development of the built environment envisaged for the Ringwood CAD will result in a significant level of construction activity in Ringwood over the coming years.

The construction of buildings close to the carriageway often requires the temporary parking of construction vehicles, tradesmen vehicles or material delivery vehicles. The parking of vehicles on the carriageway throughout the duration of construction can impact nearby existing land uses, particularly if this reduces the supply of parking to residences, businesses or public amenities.

To ensure public safety and amenity and the fair and equitable use of carriageway parking spaces, Council intends to regulate the amount and location of parking spaces allocated to construction sites through issuing construction zone permits (a construction zone is typically one or more parking spaces on the carriageway reserved on a day by day basis for the temporary parking of construction vehicles). The construction zone will be rented to the contractor for specified period and fee and thus allowing the bearer access to a car parking space on a street frontage of the associated property. Any further spaces required are rented for an additional fee.

In determining an appropriate fee for rental of construction zones, Council will consider the following:

- Construction zone permit fees provided by other metropolitan Melbourne Councils.
- The limited alternative public parking available.
- Setting a rental fee that deters developers from continually renewing construction zone permits thus encouraging a fast turn around of construction zones to limit the impact on parking opportunities, traffic flow and pedestrian amenity.

The construction zone parking management policy to be adopted by Council is set out in Strategy Policy 7.

Strategy Policy 7: Construction Zones

Council will introduce a Construction Zone permit system to regulate the provision of on-street parking space allocated to support construction activity on adjacent land. Construction Zones shall be confined to the sites frontage (subject to No Stopping controls) and will be subject to a rental and administration fee.

6.2.8 Garbage Collection

Council recognises that garbage collection within the CAD area will become increasingly more difficult as land use intensifies and higher density dwellings become more common. The higher density of dwellings can result in higher numbers of vehicles parked on-street due to, at times, insufficient off-street spaces being provided for each dwelling (particularly where multiple occupants sharing a dwelling all possess cars). The increased numbers of vehicles on-street creates a long barrier of cars, blocking access to garbage bins which are typically placed along the footpath.

To improve access to bins for garbage collection, some opportunities exist. These include:

- Introducing parking restrictions at certain locations (or along one side of a street) which ban parking during the times of garbage collection. This will provide a clear area for the placement of garbage bins for collection and remove the barrier currently generated by parked vehicles.
- Require that new developments store bins on-site and have a common collection point (preferably off-street) to restrict the number of bins placed along the road. This will also improve local amenity as bins will not be left along the side of the road throughout the day.

Banning of parking during the collection period may affect the availably of parking within the local area as large segments of parking will not be available. This may result in high levels of non-compliance and therefore a failure of the treatment. To assist compliance, the amount of parking lost for garbage collection will need to be minimised.

Council recognises that the provision of off-street garbage storage and collection may not be feasible, particularly in smaller new developments due to space and cost constraints. In such cases, the management of garbage collection shall be thoroughly explored to ensure that there is minimal impact on road, parking and pedestrian access. This may include special collection points or the rationalisation of bin numbers.

The garbage collection policy to be adopted by Council is set out in Strategy Policy 8.

Strategy Policy 8: Garbage Collection

To minimise the number of locations where access to garbage bins is restricted by on-street parking, Council will require that new developments provide provision for the storage and collection of garbage on-site by private collection.

In new developments where it is demonstrated to Council that the on-site storage and collection of garbage is not feasible, the applicant will be required to put forward a method of off-site garbage collection that minimises the impact on road, parking and pedestrian access. This may include special collection points or the rationalisation of bin numbers.

6.2.9 Alternate Parking

The increase in the number and density of land uses within the Ringwood CAD area will restrict the amount of land available to accommodate the parking requirements of new developments. To address this issue and maximise the development potential of a finite area of space, it is becoming more commonplace for new developments in town centre environments to incorporate more innovative ways of accommodating vehicle parking to meet the developments' parking requirements.

One method which is becoming increasingly popular throughout Melbourne is car sharing. Car sharing and two types of alternate methods of vehicle parking are discussed along with motorcycle and bicycle parking below.

Car Sharing

Car sharing is becoming an increasingly popular method for individuals to have access to cars without the costs and responsibilities of car ownership. Car sharing allows a member of a car share scheme (such as a household or business) to access a fleet of shared cars and other types of motor vehicles as needed, paying a usage fee each time.

Car sharing has the potential to replace many privately owned vehicles, thus having the benefit of reducing space allocated to parking both on-street and within developments. Reduced parking requirements allow higher density development to be achieved and creates the potential to develop sites previously regarded as difficult.

World wide, many local governments are moving towards approving reduced parking space provision because car sharing has been provided to residents of a development. In these cases, residents of these developments usually sign an agreement not to buy cars and become members of car share organisations. Similar arrangements are also available to businesses which become members of car sharing organisations to reduce company car fleets.

In the submission of any development application incorporating car share schemes, the developer will be required to provide supporting justification for any reduction in parking provision and demonstrate that the proposed car share facility can adequately support the needs of the development.

Parking Stackers

Parking stackers enable a commercial car park operator, developer or residential homeowner to maximise the number of parking spaces on a site by 'stacking' cars above one another. Stackers eliminate the need for parking ramps, driveways and public ingress/egress access to the facility, although require either additional headroom or excavation below grade to accommodate the lifts.

A wide range of stackers are available to suit the needs of new developments as well as increasing the capacity of existing car parks, with both automated and mechanised car stackers commercially available. Models range from two car double stacking systems for residential use to multi-level lift-and-slide car parks for commercial car parking operations.

In the submission of any development application incorporating parking stackers, the developer will be required to demonstrate to Council that the use of the system will not adversely impact the surrounding road network. This is particularly pertinent in stacking systems that do not accommodate the movement of more than one vehicle at a time and require vehicles to temporally wait off-site to access parking.

Tandem Parking

Tandem vehicle parking is a parking arrangement that maximises the number of vehicles than can park in a limited space through the parking of vehicles nose-to-end in tandem.

Tandem parking spaces are most suited to single tenancy offices. When considering an application for tandem parking Council will consider who will use the spaces and how frequently the occupation of the spaces will change. Tandem spaces will generally only be accepted when they are for land uses where staff are on the premises for long periods of time. These spaces will be required to be marked as staff bays, and will not be for the general use of customers or visitors to the building.

Tandem parking spaces are also suited to residential dwellings. Allowing developers to build tandem garages, rather than the traditional two-door garage, provides an opportunity for housing complexes to be more creatively built and fit more dwellings per square metre.

In the submission of any development application incorporating tandem parking, the developer will be required to demonstrate to Council that there is adequate area available on site for vehicles to access and exit tandem parking spaces.

Bicycle and Motorcycle Parking

The intensification of a diverse range of development with Ringwood CAD will provide easy access to shops, services and job opportunities and thus increases the opportunity for people to cycle as realistic travel alternative to the private car. However, bicycle usage needs to be supported by secure and convenient bicycle parking throughout the CAD.

There has been a surge in growth in motorcycle ownership in Australia over recent years with over a 50% increase in the number of registered motorcycles between 2003 and 2008 (source: abs.gov.au). By inference, this would suggest a corresponding growth in the demand for motorcycle parking facilities both in residential and non-residential developments.

Victorian road rules allow for the parking of motorcycles on footpaths. This arrangement can result in blockages to pedestrian movements if motorcycles are not parked appropriately. One way of addressing this issue is to provide designated motorcycle parking at both ends of motorcycle trip – that is, within residential developments and at key trip attractors.

At a minimum, Council will require that development applications meet the required statutory provision for bicycle and motorcycle parking at new developments. In addition to this, Council will seek that the location and design of bicycle and motorcycle parking within new developments is given preference over car parking.

Strategy Policy 9: Alternate Parking

Where appropriate, Council will support reduced parking provision at new developments that provide access for building occupants to car share facilities.

In the submission of any development application incorporating car share schemes, the developer will be required to provide supporting justification for any reduction in parking provision and demonstrate that the proposed car share facility can adequately support the needs of the development.

Where appropriate, Council will approve the use of alternate vehicle parking systems in new residential and office developments to ensure that an adequate provision of car parking is achieved on site.

In the submission of any development application incorporating alternate parking systems, the developer will be required to demonstrate to Council that adequate access and egress is available to parking spaces at all times and that the parking system will not adversely impact the surrounding road network.

Council will require that development applications meet the required statutory provision for bicycle and motorcycle parking at new developments. In addition to this, Council will seek that the location and design of bicycle and motorcycle parking within new developments is given preference over car parking.

6.2.10 Directional Signage

Ringwood serves a large catchment area in Melbourne's outer east as the principal retail, commercial, entertainment and employment focal point. Given the excellent connections to the metropolitan arterial road network, car travel will continue to be an important means of accessing the Ringwood CAD area.

In many urban centres, additional delay and congestion is caused by motorists searching for car parking spaces. This lack of awareness can result in some car parks or time restricted areas being under-utilised and may have the additional consequence of car park patrons undertaking additional trips to time restricted parking has been exceeded. As such, Directional Signage guiding motorists to their intended destination has an important role to play in avoiding unnecessary circulation within the Ringwood CAD area and ensuring that existing parking facilities are utilised to their optimal potential.

There are various types of directional signage ranging from static signage providing the most basic levels of information to advanced electronic parking guidance systems which are designed to provide real time information on parking such as car park occupancy levels. There are a range of additional benefits associated with electronic parking guidance systems including reduced time spent searching for spaces and an improved public image of the area, although these benefits are reflected in the high purchase and operating costs. At this stage of Ringwood's development, Council consider that it would be more cost effective to upgrade existing static signage.

The key objective in the provision of effective directional signage is to ensure that the information is legible, easily understood, informative, provides directions, and is unobtrusive to the surrounding streetscape. Information should be designed to reduce clutter by rationalising and simplifying messages, resulting in less but more effective information.

Council has undertaken an inventory of existing directional signage in the CAD area which has identified that:

- There is very limited existing directional signage on Whitehorse Road / Maroondah Highway.
- There are a number of static directional signs located on minor streets within the Study Area. However, these signs provide limited information on car park facilities.

To address the deficiencies in existing directional signage, Council have developed an integrated Directional Parking Signage (DPS) scheme.

The DPS scheme developed by Council is shown in Figure 6.3 and described in Table 6.3. The main focus of the scheme is the introduction of additional signage along Whitehorse Road/ Maroondah Highway in order to guide drivers directly to car parks. These signs will be designed to specify the number of parking bays which exist at each site so that drivers can make an informed decision as to where vacant bays might exist before leaving the main road. This aims to minimise unnecessary vehicular circulation and improve the efficiency of existing parking stocks and the overall awareness of parking space availability.

The provision of recognisable signs with uniform style and colour is fundamental to the success of the DPS scheme. While many of the car parks featured in the DPS scheme are privately owned, these car parks are available for use by the general public. Accordingly Council intend to include any existing car park (within the CAD) with 50 or more publically available spaces in the DPS Scheme. Council will ensure that any future directional signage is installed in accordance with the style and colour adopted in the DPS scheme.

The policy relating to directional signage to be adopted by Council is set out in Strategy Policy 10.

Strategy Policy 10: Directional Signage

Council will ensure that an appropriate level of directional signage is available to guide motorists to parking facilities in the Ringwood CAD area.

Actions

- Council will install directional signage to each existing car park containing over 50 parking spaces that provides publicly available parking.
- Council will require that new developments containing over 50 publicly available parking spaces provide adequate parking guidance signage to the parking facilities.

Figure 6.3: Recommended Additional Parking Directional Signage

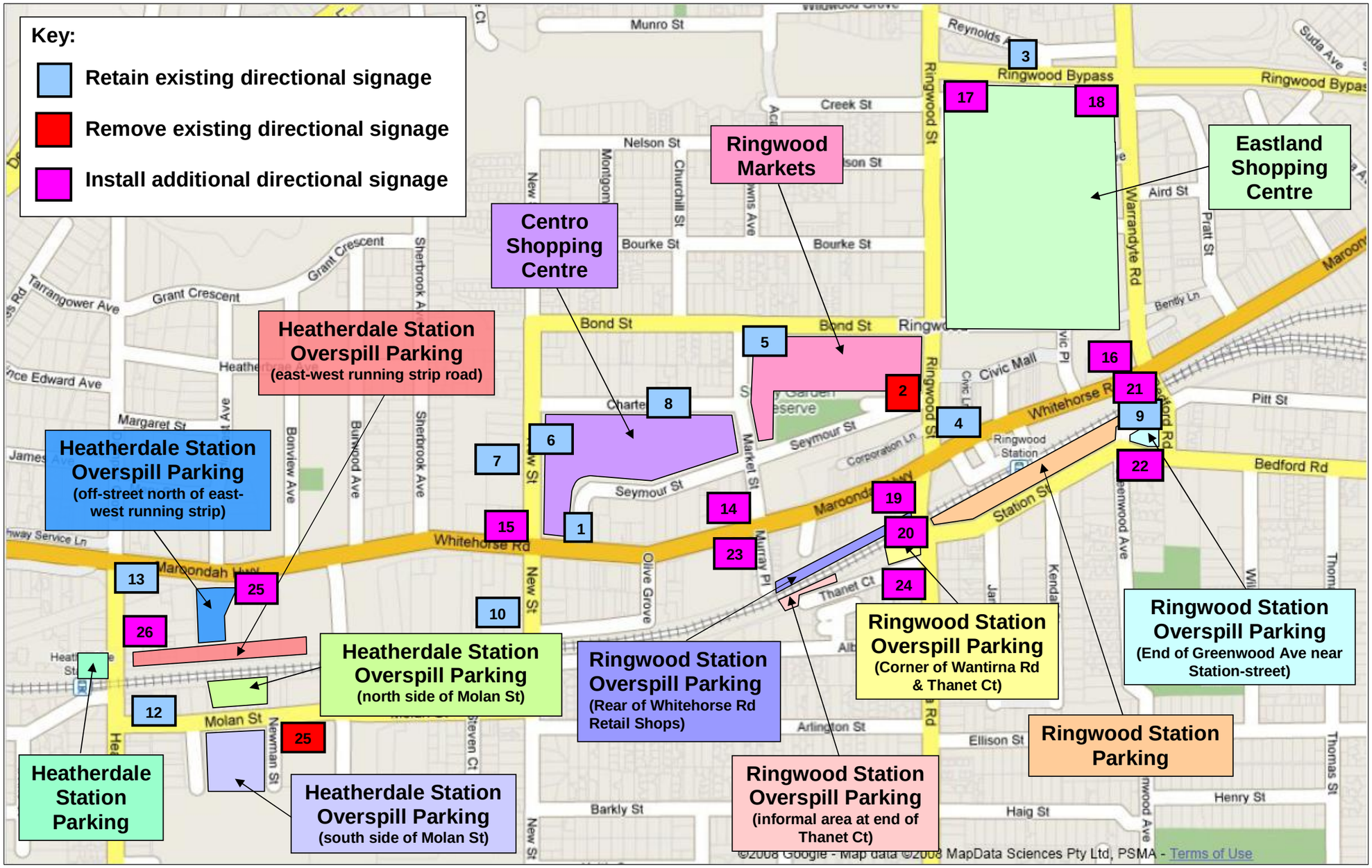


Table 6.3: Inventory of Proposed Parking Directional Signage

Map Reference	Status	Sign	Location
3	Retain	P → Eastland Shopping Centre	Informing eastbound traffic on Ringwood Bypass of parking at Eastland Shopping Centre
6	Retain	P → Centro Ringwood underground car park	On New Street
7	Retain	P → Centro Ringwood underground car park	On New Street
9	Retain	Eastland Plaza Parking ↑ (ahead)	Bedford Road south of the rail line
10	Retain	↑ P Eastland Ringwood Square, Ringwood Market, Ringwood Plaza	New Street south of the rail line
12	Retain	Car park 100m →	Corner of Molan Street and Heatherdale Road
13	Retain	Parking →	Corner of Heatherdale Road and Maroondah Highway
1	Upgrade	P → Centro Shopping Centre (700 bays)	Island at entrance to Seymour Street
4	Upgrade	P → Eastland Shopping Centre (1000 bays)	Corner of Ringwood Street and Whitehorse Road
5	Upgrade	P → Ringwood Markets (300 bays)	Corner of Bond and Market Streets
2	Remove	P →	Corner of the Seymour Street and Ringwood Street (misleading sign: directs vehicles to 5 bay informal car park)
11	Remove	Rail Car park	Under Newman St sign (sign should be removed as car park was closed 18/05/07)
14	Install	P → Centro Shopping Centre (700 bays) and Ringwood Markets (300 bays)	Corner of Market Street & Whitehorse Road
15	Install	P → Centro Shopping Centre (700 bays)	Corner of New Street & Whitehorse Road
16	Install	P → Eastland Shopping Centre (5000 bays)	Corner of Warrandyte Road & Whitehorse Road
17	Install	P → Eastland Shopping Centre (5000 bays)	Corner of Ringwood Street & Ringwood Bypass
18	Install	P → Eastland Shopping Centre (5000 bays)	Corner of Warrandyte Road & Ringwood Bypass
19	Install	P → Ringwood Station Parking behind retail shops (145 bays)	Corner of Whitehorse Road & Wantirna Road
20	Install	P → Ringwood Station (170 bays) &	Corner of Station-street & Wantirna Road
21	Install	Car park 200m → (200 bays)	Corner of Whitehorse Road & Bedford Road
22	Install	P → (30 bays) and Ringwood Station Car park → 20m (170 bays)	Corner of Bedford & Greenwood Avenue
23	Install	P → Ringwood Station Parking behind retail shops (145 bays)	Corner of Whitehorse Road & Murray Place
24	Install	Car park 100m → (60 bays)	Corner of Thanet Court & Wantirna Road
25	Install	P → (120 bays)	At signalised intersection on Maroondah Highway
26	Install	P → (55 bays)	Heatherdale Road just before rail crossing, indicating car parks east of Heatherdale Road

6.2.11 Enforcement

With the projected increase of people living and working in central Ringwood there is likely to be a resulting increase in parking demand both within the CAD boundary and surrounding residential environs. As competition for parking spaces grows, there will be a requirement to provide an appropriate level of enforcement to ensure that the parking supply is efficiently utilised and that illegal parking practices are minimised.

The enforcement of the parking supply is also likely to be central to the successful implementation of a number of polices put forward within this strategy, particularly with regards to:

- Ensuring the efficient use and continual turnover of short term parking spaces.
- Encouraging medium and long stay visitors to park in off-street facilities.
- Protecting residential areas from over-spill parking.

Council currently manage in the region of 850 publicly provided designated parking spaces within the Ringwood CAD area. Of these spaces approximately 400 are currently regulated by time limit parking restrictions which typically operate between 8.30am and 4.00pm. Generally, restricted parking is subject to short term (less than 1 hour) time limits. In addition to these designated parking spaces, Council also manages parking within residential streets, five of which are subject to priority residential parking and short term parking restrictions.

The findings of the Stage 1 Parking Study indicate that there is generally excellent compliance with on-street and Council owned off-street time restricted parking. This suggests that:

- Infringement fines are currently set at a level that deters motorists from over-staying time limits.
- There is an adequate supply of medium and long term parking off-street to cater for existing demand.
- There is no immediate requirement to employ further enforcement officers.

In order to manage future parking demand, it is likely that the number of time restricted publicly provided parking spaces will increase. These parking spaces will also require enforcement to ensure that the future parking supply is efficiently and fairly utilised. Typically, one parking enforcement officer is required for every 430 parking bays, although it is commonplace that two parking officers patrol in unison for safety reasons and to provide a strong parking enforcement presence. Based on the total number of publicly available parking spaces, it is likely that Council will require up to four parking enforcement officers, although this number of officers should be sufficient to also cover residential areas.

From a review of parking enforcement procedures undertaken by other Council's within metropolitan Melbourne, Council have identified the need for a better structured parking administration system. In particular, Council would benefit from a simplified and consolidated administration system that allows a designated Council department to:

- Electronically record infringement notices.
- Issue and record payment of infringement fines.
- Record changes to parking restrictions.
- Advise stakeholders of new or altered parking restrictions.

The development of an electronic set of parking plans specifying the location and operating period of all parking restrictions is seen as a simple and efficient reference tool for sharing and updating parking related information between various Council departments.

As noted in previous sections, the vast majority of parking spaces in Ringwood are under private management. The findings of the Stage 1 Parking Survey has identified that there is less compliance with time restrictions in privately managed off street car parks in comparison with on-street parking facilities. Council consider that an increased level of enforcement within private car parks could have the benefit of:

- Encouraging turnover of customers, particularly in conveniently located short-stay spaces.
- Discouraging the use of private car parks by long stay commuters.

There may be future merit to both Council and private car park operators to enter an agreement whereby Council undertake the management and enforcement of car parking restrictions in private car parks. This would involve Council managing these private car parks in the same way it manages on-street public parking. Depending on uptake, this would require a potentially significant level of additional parking enforcement officers. Given that the level of enforcement provided by Council is constrained by resources, it would be a requirement to fund additional enforcement through the collection of parking fines. An evaluation of the cost effectiveness to Council of enforcing privately owned car parks would be required before entering any agreement.

The enforcement policy and actions to be adopted by Council is set out in Strategy Policy 11.

Strategy Policy 11: Enforcement

Council will provide an appropriate level of parking enforcement that seeks to fairly assist with achieving the objectives of this Parking Strategy.

Actions

- As Ringwood develops, Council will undertake appropriate levels of enforcement within the CAD area.
- Council will monitor resources with a view to ensuring that appropriate levels of enforcement are undertaken.
- Council will develop a consolidated electronic system operated by a designated Council department to administrate parking enforcement.
- Council will obtain a set of electronic parking plans and make them available for use by the Enforcement, Permits and Engineering Departments. The plans will be updated regularly to reflect any changes to parking restrictions and will be recorded on an electronic registry.
- Council will review the level of fines for parking infringements as required to ensure that fines are a sufficient deterrent to prevent illegal parking.
- Council will investigate the potential of providing enforcement in privately owned car parks in the future. In the interim, Council will encourage increased enforcement of privately owned off-street car parks by car park operators.

6.2.12 Statutory Parking Rates

Ringwood CAD will progressively incorporate higher density development that will see an increased number of people living in and working close to the CAD. The intensification of a diverse range of development provides easy access to shops, services and job opportunities and thus increases the opportunity for people to walk, cycle and use public transport as realistic travel alternatives to the private car.

In realising this vision, the suitability of existing statutory parking requirements needs to be considered with appropriate parking rates reflecting changes in demographics and accessibility set for the future.

The Department of Planning and Community Development are in the process of undertaking a separate state-wide review of planning scheme parking rates. This process included the release of a report by an Advisory Committee (appointed by the Minister for Planning) titled *Review of Parking Provisions in the Victoria Planning Provisions, August 2007.* This report aims to provide advice on car parking issues and to prepare a new Clause 52.06 suitable for inclusion in the Victoria Planning Provisions (VPP) and planning schemes.

Table 6.4 provides a comparison of the parking rates currently adopted by Maroondah City Council with those suggested by the DPCD Advisory Committee for the key land uses in Ringwood CAD (DPCD Advisory Committee parking rates are specific to Victorian activity centres).

Table 6.4 Existing and Recommended Parking Rates

Land Use	Car Space Measure	Rate currently adopted by MCC	Rate suggested by DPCD*
Residential	To each one or two bed dwelling	2	1
	To each three of more bed dwelling	2	2
Retail	To each 100 sq m of leasable floor area	8	3.5
Office	To each 100 sq m of net floor area	3.5	3

**Draft Review of Parking Provisions in the Victoria Planning Provisions, August 2007*

The parking rates proposed by the DPCD Advisory Committee are lower than or equal to the existing parking rates in Clause 52.06. In this regard, the proposed Advisory Committee parking rates are in line with the Ringwood CAD vision to promote reduced car dependency and therefore encourage the use of more sustainable forms of transport.

Applying the parking rates proposed by the DPCD Advisory Committee to the forecast total land use build out as shown in Table 4.3 indicates that between 12,909 and 14,748 parking spaces will be required to support the Ringwood CAD area by 2030. This equates to an increase in parking in Ringwood CAD of between 5050 and 6895 parking spaces (refer to Appendix A).

This level of parking assumes a continuation in current travel practices, particularly unabated growth in car travel, and therefore does not take into consideration the impact of transport initiatives aimed at reducing the overall parking requirement such as car share schemes.

At the time of writing, a report detailing the outcome of the DPCD Advisory Committee review recommendations is expected in late 2009.

Until the release of the DPCD parking rates, it is considered important for Council to make a move towards encouraging the uptake of lower parking rates that specifically reflect:

- The likely future demographic profile of Ringwood.
- The significant level of envisaged growth.
- The proposed land use and activity patterns envisaged for Ringwood.

- The transport system servicing Ringwood.

As such, Council are required to consider:

- In contrast to many other areas, Ringwood is extremely well served by the arterial road network. Without sufficient measures in place, the high level of accessibility to Melbourne's inner and south-eastern suburbs provided by car will make it more difficult to promote more sustainable modes of transport. One possible way to address this is by setting parking rates that encourage reduced levels of car ownership. This approach has worked successfully in Melbourne's Docklands' where only one car parking space is allocated per household.
- A fundamental aspect of the CAD concept is to create a greater level of self containment whereby people live, work and socialise within the CAD area. This will naturally reduce the demand for car parking and therefore can be reflected in parking rates.
- Household size is declining with a greater number of households occupied by 1 or 2 people. Opportunity exists to provide higher density smaller sized residential dwellings located near services and public transport. The accessibility by non-transport modes needs to be reflected within statutory parking rates.

Following the release of this Parking Strategy, Council will support lower parking rates for the following land uses:

- Residential: Adopt a maximum of 1 space per dwelling within Ringwood CAD irrespective of dwelling size.
- Retail: Adopt a minimum of 3.5 spaces per 100 sq m of leasable floor area.
- Office: Adopt a minimum of 3 spaces per 100 sq m of leasable floor area.

Based on the above parking rates between 12,535 and 14,316 parking spaces will be required to support the level of development in the Ringwood CAD area by 2030.

As noted, many of the parking spaces required to support the level of development by 2030 currently exist in Ringwood CAD. As such, Council will encourage the transition to the lower parking rates by making allowances for developers to include existing parking stock within the ownership of the development to support future development proposals.

The policy relating to statutory parking rates to be adopted by Council is set out in Strategy Policy 12.

Strategy Policy 12: Statutory Parking Rates

In working partnership with DPCD, Council will periodically review and develop parking rates specified in Clause 52.06 of the Planning Scheme that ensure that the aspirations of the CAD vision are being met.

Council will encourage the transition to lower parking rates by making allowances for developers to include existing parking stock within the ownership of the development to support future development proposals.

6.2.13 Car Parking Contribution Fund

The development of Ringwood as a CAD and the primary mixed use hub in Melbourne's outer east will result in dramatic changes to the built form of the existing central area with a particular move towards a *building form that is higher and more intense than its surrounds that will 'distinguish' the CAD from its low-rise suburban context.*

The planned development of densely concentrated, higher intensity uses within and adjacent to the Town Centre, coupled with the high commercial value of land means that there is potentially both physical and financial constraints on the level of car parking that can be provided within developments in the CAD area and therefore, in some cases, it is likely that on-site car parking requirements will not be met.

As a key action arising from the Ringwood CAD Parking Strategy, Council will undertake a Feasibility Study, by CAD precinct, to identify specific opportunities to increase publicly provided parking stock either via purpose built facilities or within existing or future development. As such, there may be potential to offset any shortfall in development related parking through the increased provision of publicly provided parking.

In line with other Local Governments in Victoria, the costs of providing additional public car parking in the CAD could be facilitated through the creation of a car parking contribution fund whereby developers contribute funds in exchange for a waiving or reduction in the development car parking requirement.

Council have considered two different funding mechanisms that could form the basis of the car parking contribution fund; these being a "special rates" scheme and a "payment in lieu" scheme.

Typically, a "special rates" scheme would require all properties to contribute funds regardless of the extent to which they may have already satisfied statutory parking requirements. The comprehensive parking surveys undertaken during the Stage 1 Parking Study indicated that whilst some localised areas in the study area are subject to high levels of parking demand, the overall existing level of parking supply is able to cope with the parking demand and some spare parking capacity exists. In this context it is considered that currently, throughout the entire Ringwood CAD area, there is not a significant parking problem that can be collectively attributed to existing developments. Council consider that it would therefore be unreasonable to seek a financial contribution from all existing developments (as possible through a "special rates" scheme) for the purposes of addressing parking issues.

Conversely, a "payment in lieu" scheme will require that future developments that are unable to satisfy their off-street parking requirements will make a financial contribution to Council to assist in funding initiatives to manage the impact in the shortfall in parking. The contribution will be required by owners of new developments, extensions to existing buildings and when a change of use occurs to an existing building. When the land use remains the same, developers will not be required to make any contribution.

Council consider that a payment in lieu scheme is a more appropriate and equitable funding mechanism for addressing future parking matters.

Implementation of the "payment in lieu" scheme is aimed at reducing the need for Council to undertake lengthy assessments where developers ask for Parking Exemption. In addition the scheme will provide increased flexibility for developers who are unwilling or don't want to provide parking. This system also removes the need for Council to provide dispensation to developers who are unable to provide the statutory parking rates on-site.

Council has estimated that the approximate cost of a 'ground plus one level' car park in Ringwood would be in the order of $54,000 per space (including GST). The cost of a 'ground plus one level car park' has been calculated based on current land values and construction costs i.e. the cost to Council

for publicly providing the parking. This approach has been adopted by other Council's in Victoria and is considered an equitable means of calculating funding contributions (refer to Appendix A for cost estimate calculation).

Opportunity also exists to offset any perceived reduction in accessibility associated with a shortfall in parking with the implementation of transport schemes that can help reduce car dependency in Ringwood. This could include inter alia:

- Public transport initiatives.
- Improvement in pedestrian links between car parks and attractions.
- Sustainable transport initiatives.

Council have identified a range of parking improvements and transport initiatives which would benefit from funds raised from payment in lieu contributions. These are set out in Appendix B. Whilst the transport initiatives put forward in Appendix B may not be directly related to car parking, the initiatives are aimed at encouraging lifestyles that are less car-dependant which in turn may lead to a lesser demand for car parking with the CAD area. An evaluation of the legal issues regarding the use of payment in lieu contributions will be conducted by Council before pursuing these options.

The car parking contribution fund policy and actions to be adopted by Council is set out in Strategy Policy 13.

Strategy Policy 13: Car Parking Contribution Fund

Following a feasibility study to be undertaken to identify specific opportunities to increase the provision of publicly provided car parks, Council will further investigate opportunities to develop a car parking contribution fund that will form part of the Maroondah Planning Scheme.

Actions

- Council will undertake a Feasibility Study, by CAD precinct, to identify specific opportunities to increase publicly provided parking stock either via purpose built facilities or within existing or future development.
- Council will explore the potential and advocate for a funding mechanism that allows cash in lieu to be collected and used to address parking issues and transport initiatives that help reduce the demand for car parking in the CAD

.

6.3 Implementation Plan

The Ringwood CAD Parking Strategy Report will be endorsed by Council and will provide all stakeholders with a strategic direction in dealing with parking issues within the Ringwood CAD area.

Working in partnership with DPCD, Council will develop a new set of parking rates to replace those specified in Schedule to the Clause 52.06-5 of the Maroondah Planning Scheme.

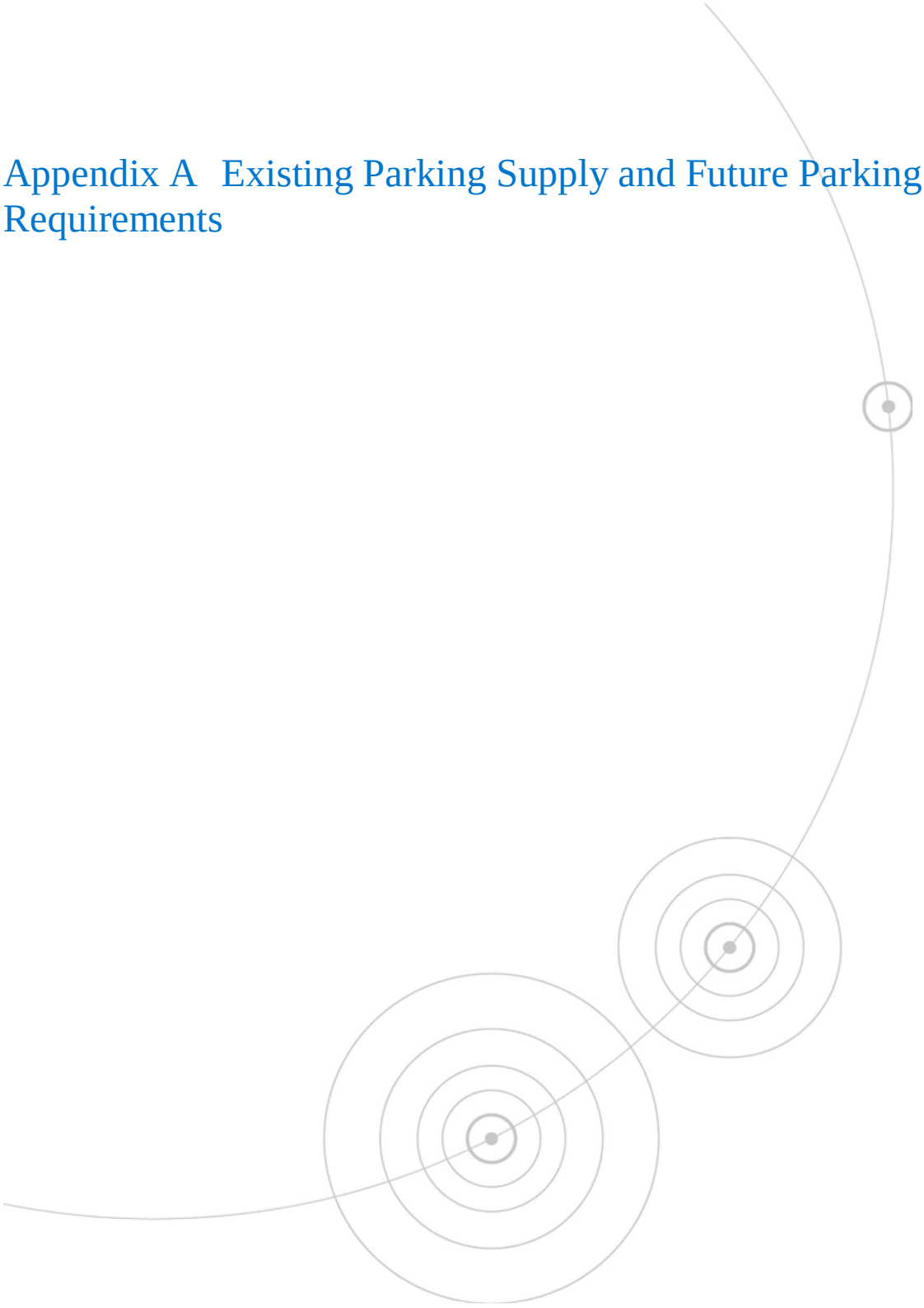
The changes to the Schedule in Clause 52.06-5 will be used in assessing applications for future residential, retail, and office developments.

6.4 Monitoring and Review

Ringwood Parking Strategy Report reflects the current car parking capacity and demand for the various land-uses. It is anticipated that as a result of changes in land-uses, such as increased commercial development within the activity centre and new public and sustainable transport strategies, that car parking characteristics and travel patterns may alter in the future.

Ringwood Parking Strategy Report shall be reviewed every three years in conjunction with the Municipal Strategy Statement (MSS) review, which is conducted every 3 years as stated by Clause 21.14 of the Maroondah Planning Scheme. The review of this Parking Strategy Report should be undertaken by City of Maroondah to ensure it reflects local conditions and reflects relevant policies.

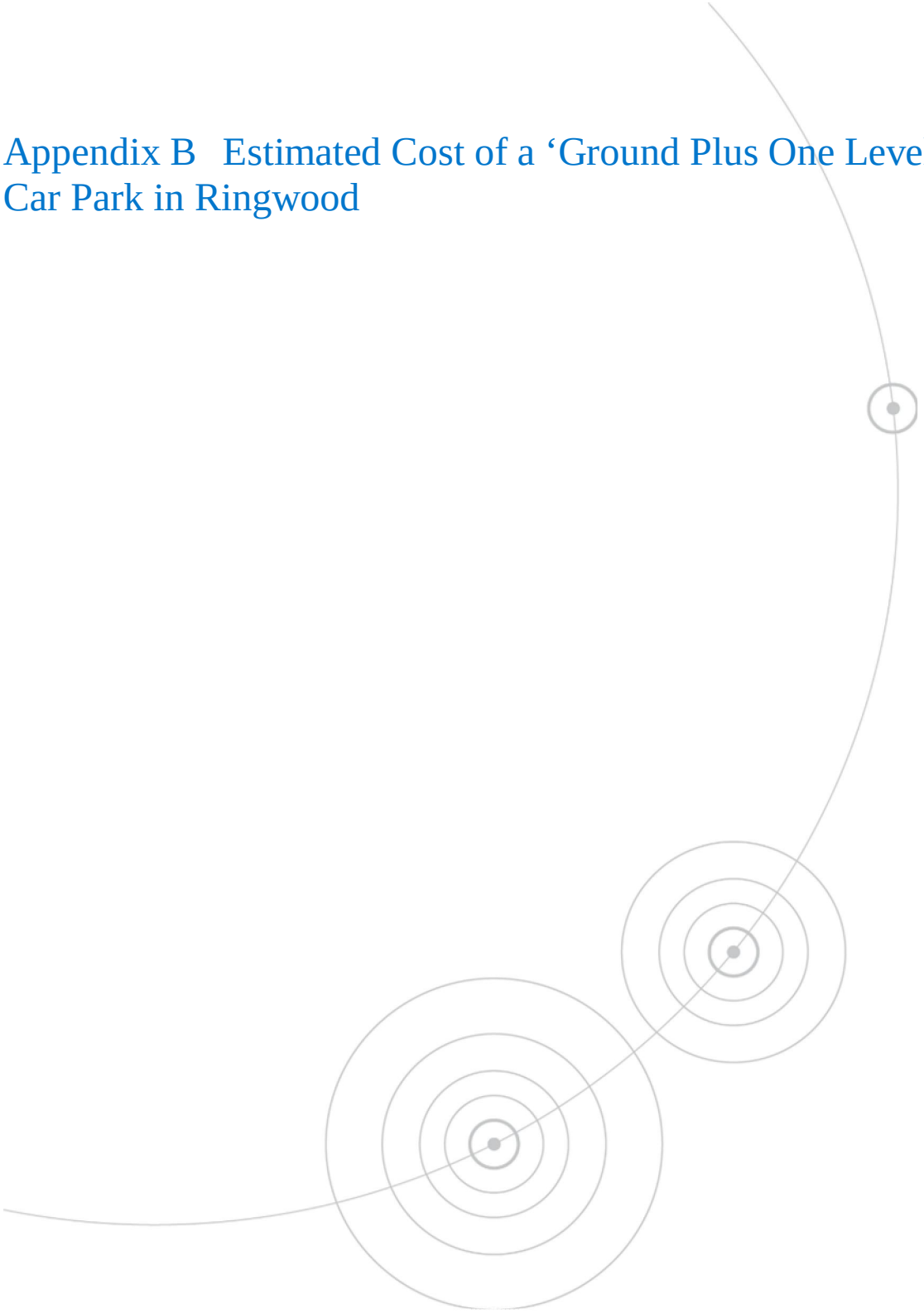
Appendix A Existing Parking Supply and Future Parking Requirements



Existing and Future Parking in Ringwood CAD

Ringwood CAD Precinct	Existing No of Spaces in Precinct as Surveyed as 2007	Required No. of Spaces to Support Full Development in Precinct based on DPCD Parking Rates	
		Conservative	High Growth
Eastland	3,380	3,165	3,165
Town Centre	1,498	Retail: 1,925 Office: 360 Education: 212 Residential: 240 **Total: 2,737**	Retail: 1,925 Office: 540 Education: 226 Residential: 300 **Total: 2,991**
Ringwood Superblock	363	Rail: 318 Retail: 70 Office: 60 Residential: 180 **Total: 628**	Rail: 318 Retail: 96 Office: 75 Residential: 240 **Total: 729**
Eastern Mixed Use Triangle	110	Office:90 Residential: 612 Education: 149 **Total: 851**	Office:135 Residential: 690 Education: 149 **Total: 974**
Western Mixed Use Area	1,554	Retail: 880 Office: 705 Residential: 168 **Total: 1753**	Retail: 880 Office: 945 Residential: 198 **Total: 1783**
Highway Presentation	800	Retail: 200 Office: 1,440 Showroom: 1,356 Residential: 193 **Total: 3,198**	Retail: 240 Office: 2,085 Showroom: 1,575 Residential: 205 **Total: 4,105**
Landscape Residential	150	Office: 45 Residential: 851 **Total: 896**	Office: 120 Residential: 960 **Total: 1,080**
Total	**7,855**	**12,909**	**14,748**

Appendix B Estimated Cost of a 'Ground Plus One Level' Car Park in Ringwood



Cost of providing a 'ground plus one level' car park within Ringwood Transit City.

1) Land acquisition costs for commercial land in Ringwood Transit City area – obtained from Maroondah City Council Valuation Department

- **Land cost per square metre**

Minimum Cost	Average Cost	Maximum Cost
$1,000	$1,250	$1,500

- **Land cost per parking space including vehicle turning area (3m x 10m)**

Minimum Cost	Average Cost	Maximum Cost
$30,000	$37,500	$45,000

2) Cost of constructing car park based on Rawlinson's Construction Handbook (2008)

- **Building cost per space**

Minimum Cost	Average Cost	Maximum Cost
$12,100	$12,550	$13,000

- **Landscaping cost per space**

Minimum Cost	Average Cost	Maximum Cost
$1,000	$1,000	$1,000

- **Legal cost per space**

Minimum Cost	Average Cost	Maximum Cost
$1,000	$1,000	$1,000

3) Cost of maintaining car park. Maintenance costs represent a "Present Cost" based upon $2000 per year for a 30 year life, discounted at 6%.

- **Maintenance cost per space**

Minimum Cost	Average Cost	Maximum Cost
$275	$275	$275

4) TOTAL COST PER SPACE

Minimum Cost	Average Cost	Maximum Cost
$45,825	$53,575	$61,325

Costs should be adjusted annually from 1 July 2008, which is the approximate period when the car parking cost was derived, using CPI (all groups) as the index.

Appendix C Identified Parking and Transport Initiative Schemes

Council will investigate how monies raised through payment in lieu contributions could be used to develop schemes that address parking and accessibility issues within Ringwood CAD.

Council have identified the following schemes:

Off Street Parking
Council will investigate how funds obtained from a Payment in Lieu scheme may be used to improve access to and increase the supply of public off-street parking. This may include using funds to:

- Increase the number of parking spaces in the public car park located off Murray Place potentially through the construction of a multi-deck facility;
- Reconfigure or formalise the layout of public car parks to optimise the number of available parking spaces;
- Increase the awareness of public car parks through the provision of directional signage to car parks containing over 50 spaces;
- Improve the safety of public off-street car parks by introducing measures that increase surveillance;
- Improve the amenity of public car parks through measures such as resurfacing, provision of way-finding information and providing facilities to aid physically impaired users;
- Increase the stock of public off-street parking through the potential lease of parking provided by new developments.

In addition to the above improvements to public off-street parking, Council will investigate how funds could be utilised to provide directional signage to each existing private off-street car park containing over 50 parking spaces that provides publicly available parking

Location Specific Infrastructure Improvements
Previous modelling work undertaken on behalf of Council has identified a range of additional transportation infrastructure that may be required to support full development of the CAD. The required infrastructure improvements are described in detail in Future Conditions Paramics Modelling – Ringwood CAD (2007) report and listed below:

- Signals at Hillcrest Avenue/ Maroondah Highway
- Heatherdale Road Pedestrian Signals
- Removal of Bently Lane
- Adelaide Street relocation
- Removal of Plaza Centre Way and Adelaide Street
- Removal of Plaza Centre Way bus stops
- Widened Bond Street and Eastland Car Park approaches to Ringwood Street
- Bus “Superstops” on Ringwood Street south of Bond Street
- Signalised pedestrian crossing of Ringwood Street between Bond and Seymour Streets
- Wantirna entry option Bus Interchange at Ringwood Station
- Right-turn lane on the Heatherdale Road approach to Molan Street
- Full/Part-time 40km/h speed limits on Maroondah Highway and Station-street
- Short narrowing of Maroondah Highway
- Long narrowing of Maroondah Highway
- Major pedestrian crossing of Maroondah Highway north of Ringwood Station
- Pedestrian signals at Maroondah Highway at Larissa Avenue
- Molan Street/New Street roundabout treatment
- New Street layout changes between Maroondah Highway and Charter Street
- Property access roads adjacent to the New Street/Maroondah Highway intersection

- Left-turn slip lane extension on the Wantirna Road approach to Maroondah Highway
- New short left-turn slip lane on the Ringwood Street approach to Maroondah Highway
- New long left-turn slip lane on the Ringwood Street approach to Maroondah Highway
- Station-street improvements
- Wantirna Road improvements south of Station-street

In most cases, the potential need for the infrastructure outlined in this modelling work will be dependant on the extent and location of land use build out within the CAD area. As Ringwood develops, Council will reassess the need and appropriate timing for the implementation of the infrastructure improvements and will then seek stakeholder endorsement for each identified scheme accordingly. Once endorsed, Council will investigate how monies obtained from a Payment in Lieu scheme may be used to contribute to the funding of the proposed infrastructure improvements.

Public Transport Initiatives
In addition to specific schemes identified within previous modelling work, Council will investigate how funds obtained from a Payment in Lieu scheme may be used to contribute to infrastructure improvements for existing route and future bus services within Ringwood CAD.

Many residents and employees in the activity centre currently believe that the public transport services are not reliable or comprehensive enough. Accordingly, they consider ownership and usage of private car is still a necessity. Funds raised by the scheme which are used towards improving buses, walking and cycling will reduce the requirement for residents and employees to own and use cars and thus reduce car parking demand.

Council will also continue to lobby public transport operators to provide improvements to public transport infrastructure including installation of shelters, seating, real time service information and ensure that all existing and future bus stops within the CAD area are DDA accessibility compliant.

Improve Pedestrian Links
Council will identify how collected funds could be directed towards general improvements to the pedestrian network, with particular focus placed on improving connectivity and permeability between the different CAD precincts. In addition to the specific schemes identified in previous modelling work, pedestrian network improvements may be in the form of widened footpaths, improved surfaces, improved street lighting and directional signage for pedestrians.

Improve Cycle Links
Council will use payment in lieu contributions to help fund the infrastructure and land costs required to construct the future bicycle network envisaged within the Ringwood Bicycle Plan (February 2008).

Sustainable Transport Initiatives
Council will identify how Payment in Lieu contributions could be directed towards the provision of schemes that encourage the use of sustainable transport modes.

Two identified initiatives are the Department of Transport's (DoT) Travel Smart Program and Local Area Access Program (LAAP).

Travel Smart Program
The DoT has developed a Travel Smart program which has been set up to provide communities with information on alternative modes of travel available to them locally as opposed to the private car.

The Travel Smart initiative has developed four separate program streams. Each program stream aims to target a separate section of the community. The four streams are:

- Community Program;
- Schools Program;
- Universities Program; and

- Workplace Program.

Council will investigate funding mechanisms involved in initiating the Travel Smart Program throughout the Ringwood CAD.

This may involve Council appointing a full-time Sustainable Transport Officer, who would be responsible for providing guidance and advice in regards to developing and implementing school and workplace travel plans. The Sustainable Transport Officer would also be responsible for the implementation and monitoring of public and sustainable transportation initiatives within Ringwood CAD.

Local Area Access Plan (LAAP)
The Local Area Access Program is part of an Accessible and Sustainable Travel Grants Package. Therefore, municipalities can receive grants from the State Government to allow the Council to specifically focus on improving sustainable transport initiatives, particularly for walking, cycling and public transport.

Funded projects will typically focus on:

- Provision or improvement of walk and cycle links (e.g. paths) to activity centres, other major destinations and the public transport network;
- Infrastructure works to overcome local obstacles or discontinuities (either physical or perceived) that impede cycling, walking or access to public transport;
- Other improvements to walking and cycling networks that encourage their use; and
- Improving the understanding of local access needs.

Council will continue to pursue grants under the LAAP program to assist in the improvement of walking, cycling and public transport initiatives.