Final Report
25 November 2009

TOWN OF VINCENT

PRECINCT PARKING MANAGEMENT PLANS

for
Leederville
Mount Hawthorn
Mount Lawley/Highgate
North Perth
Perth

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1 Summary

The Town of Vincent ("the Town") prepared a Car Parking Strategy in 2002 which was reviewed and updated in 2008 but has not yet been endorsed by Council. Following one of the recommendations from the 2008 Draft Parking Strategy a survey of actual parking supply, demand and duration of stay, both on-street and off-street was undertaken in November 2008. This showed that existing parking in several high activity centres in the Town is generally not fully utilised.

A second major recommendation in the 2008 review was for the preparation of Precinct Parking Management Plans ("PPMP") which would focus on each of the high activity centres. Using the information from the Draft Parking Strategy and the Parking Surveys and applying principles of best practice, Luxmoore has developed these PPMPs for Leederville, Mount Hawthorn, Mount Lawley/ Highgate, North Perth and Perth.

Each PPMP incorporates a number of recommendations for the short, medium and longer terms in order to provide guidance over a 10 year planning horizon and beyond. The broad aim is to manage and control parking together with a process of phased implementation of a place based package of measures, as these centres move to accommodate higher densities and intensities of use.

Section 3 deals with general parking issues in the Town, and then discusses parking measures and options to implement them.

There are several recommendations which are common to all the precincts. Detailed topics and specific plans are set out for each centre. These allow local issues to be considered, and transitional arrangements permitted in line with broad transport policy and strategic plans.

The short term focus (to 2012) will be on making more effective and efficient use of the available parking. Recommendations to better support businesses in each area, improve utilisation of existing spaces, make it easier for drivers to find a space and better integrate parking policy with broader strategic objectives include:

- Amending and simplifying the parking requirements and controls.
- Reviewing, and extending ticket parking and making it more convenient to pay.
- Encouraging shared parking rather than separately providing parking for each activity or land use.
- Improving the security, accessibility and amenity of the existing parking and upgrading the major off-street car parks as examples of best practice.
- Improving public parking wayfinding signage.
- Implementing an ongoing education campaign on the unsustainability of current parking practices.

An update of the 2008 parking survey is to be undertaken before 2013.

Over the medium term (2013-2017) the focus should continue to be on improving the effectiveness of current supply while moving towards making explicit use of parking as a travel demand management (TDM) tool. Recommendations for this second stage include:

- Extending pay parking to include all public parking within a 5 minute walk of each activity centre and continuing to prioritise short stay/visitor parking close to the centre core.
- Encouraging and providing further cycle and motorcycle parking facilities.
- Identifying locations where parking utilisation is exceeding the desired maximum and appropriate actions to deal with this.

- Undertaking investigations into multi-level car parks and preparing a business case.
- Negotiating with landlords to unify the management of off-street car parks.
- Considering the introduction of maximum rates in some areas.

In the longer term (2018+) the Town should:

- Consider expanding pay parking based on survey results.
- Continue to carefully manage parking to prioritise activities supporting economic activity.
- Provide additional space for pedestrian amenity.
- Introduce and enforce parking restrictions such as 2P parking on residential streets.
- Consider further resident priority parking schemes.

The detailed issues, findings and recommendations for each centre are set out in Sections 5 - 9 of this Report. Recommendations are consolidated and prioritised in Appendix B and proposed locations for new ticket machines are shown in Appendix C. Appendix D provides the basis of an Event Parking Management Plan.

Contents

2 Introduction

2.1 Precinct Parking Management Plans

Luxmoore Parking Consulting ("Luxmoore") has prepared these Precinct Parking Management Plans ("PPMP") for the Town of Vincent ("the Town") in accordance with recommendation 5.4.2 in the Town of Vincent Draft Car Parking Strategy September 2008. The five high activity centres are Leederville, Mount Hawthorn, Mount Lawley/Highgate, North Perth and Perth.

An extract from the recommendation is shown below in italics.

5.4.2 Precinct Parking Management Plans

A Precinct Parking Management Plan is targeted to:

- *identify parking supply and management policies and actions to support the short and longer term development of a centre with specific emphasis on land use intensification and supporting the centre's economic viability and vitality*
- *integrate parking policy and management and the location of off-street parking facilities with committed and planned transport improvements, with particular emphasis on public transport infrastructure and service improvements, the pedestrian and cycle networks and urban design objectives*
- *better internalise the cost of parking in decision making and, over time, to generate a rate of return on public parking facilities which reflects the opportunity cost of capital*
- *ensure an equitable cost of parking for drivers.*

Each Precinct Parking Management Plan will provide detailed guidance over a 10 year planning horizon in relation to management and control of parking together with a process for the phased implementation of a place based package of measures as the centres move to higher density. The geographic and temporal measures need to be highlighted both in a map and a timeline. There are some key measures such as location of on-street pay parking, time restrictions, residents parking (if any), car park buildings, cycle parking areas, mobility parks, reductions in parking, and spill-over areas that will need to be identified in the plan.

A detailed plan for dealing with specific parking issues in each high activity centre in the short, medium and long term will allow local issues to be considered, and transitional arrangements permitted in line with broad transport policy and strategic plans.

2.2 Parking Strategy reports and surveys

The PPMP is to be read in conjunction with the following reports:

1. **Town of Vincent – Draft Car Parking Strategy Review**, 15 September 2008. Prepared by Luxmoore Parking Consulting, Ref. PC74580 (the "Draft Parking Strategy"). This Draft Parking Strategy has not yet been finalised or endorsed by Council. The reader is referred in particular to Section 4 – Fundamental Parking Issues, Section 11 – Findings and Conclusions, and Section 12 – Consolidated Recommendations.

2. **Town of Vincent – Parking Survey Report**, 16 December 2008. Prepared by Luxmoore Parking Consulting, Ref. PC75022 ("the Parking Survey").

Additionally, a High Density Residential Parking Survey was undertaken in February 2009.

2.3 Parking issues and common recommendations

Section 3 deals with general parking issues in the Town. Section 4 considers the implementation of several parking measures and concludes with a list of recommendations which are common to all five precincts.

2.4 Precincts

Sections 5 – 9 comprise the PPMP for each precinct. These incorporate a map and description of each area, a list of parking issues and options to implement parking measures, and prioritised recommendations for each precinct.

2.5 Recommendations and appendices

Appendices are included at the end of this PPMP. Appendix A sets out the current required minimum parking ratios in the Town based on different land uses, Appendix B details a consolidated and prioritised summary of the recommendations in each PPMP and then compares them and Appendix C indicates proposed locations for ticket machines. Appendix D is the core of an Event Parking Management Plan for different situations.

3 General parking issues in the Town of Vincent

Section 4 of the Draft Parking Strategy provides detail on fundamental parking issues across the Town. The key issues relating to the high activity centres are summarised below. They are to be read in context with Section 4 of the Draft Parking Strategy.

3.1 Town of Vincent Car Parking Strategy

Several objectives for a parking strategy for the Town[1] are currently under consideration by Council in The Draft Parking Strategy. The objectives were derived from an understanding of all the commercial and environmental costs associated with the supply of parking, and the lack of accuracy and efficiency in the methodology used to determine minimum parking requirements. The Parking Surveys in these precincts confirmed that, with only a few exceptions, the current supply of parking is not fully utilised. It is important to recognise that it is cheaper and easier to maximise the use of current parking capacity before considering building additional spaces.

Best practice in parking has undergone a paradigm change from a demand satisfaction approach which looks to "*predict and provide*", to a demand management approach under which too much parking capacity is as harmful as too little. In this modern approach, limits to supply should be based on the environmental and other capacity of each precinct to accommodate parking, not on its capacity to accommodate development. In particular, the existing parking capacity in an area needs to be used more effectively.

The objectives of the Draft Parking Strategy are listed below together with comment in italics:

- **Ensure sufficient parking supply to support prosperous and vibrant commercial and high activity centres**

  The parking supply appears to be sufficient based on a November 2008 survey. A number of streets have less than 50% occupancy.

- **Provide enforcement resources to ensure safety, adequate turnover of parking spaces to support business activity in the areas and to protect residential amenity**

  There is a need for increased enforcement resources (as well as improved parking technologies), and the times of enforcement should fit with times of peak demand.

- **Ensure parking space availability is managed according to the varying needs of businesses, customers and commuters**

  Priority is to be given to the needs of businesses during business hours and residents after hours.

- **Promote 'shared' or publicly available parking in preference to single user parking**

  Council should negotiate to manage privately owned car parks such as the Leederville Village Shopping Centre car park.

  On-street parking particularly in residential streets which are close to commercial precincts needs to be shared with the businesses especially during the day.

  Council should review its Planning Scheme policies to encourage shared parking in new developments and update its cash-in-lieu provisions.

1 Town of Vincent Draft Car Parking Strategy Review, 15 September 2008, Section 4.8 Parking Strategy Objectives

- **Upgrade and apply CPTED (Crime Prevention Through Environmental Design) principles in the design of off-street parking facilities**

  Council should aim to set a good example of how to provide improvements to off-street car parking. The layout of the on-street parking has been generally well designed in the Town, but the off-street car parks present poorly. Pricing and time restrictions are confusing and they are in need of a number of improvements including signing, pedestrian access, landscaping and improved lighting.

- **Accommodate parking for all vehicles including motorcycles and bicycles**

  In order to encourage motorcycles, scooters and bicycles to the Town, there should be additional parking or end of trip facilities provided, as well as good wayfinding signage.

- **Support accessibility to the various high activity centres by recognising all travel modes including walking, cycling and public transport**

  Provide improved pedestrian access, and associated signage to the off-street car parks in each precinct.

  There needs to be improved wayfinding signage to the public off-street car parks in the Town - it is not clear to motorists where the current off-street parking is located and available.

- **Review the strategy for future needs**

  The strategy should be flexible to enable parking to be continuously reviewed in order to assess and make changes as the need arises. Parking surveys should be undertaken on a regular basis (every 3-5 years) in order to reassess the demand and supply.

3.2 Wayfinding signage

There is a lack of adequate signage directing drivers of cars, motorcycles, scooters and cycles to parking facilities in and around the Town. The current style of wayfinding signage for the public off-street car parks does not give advance warning of location, does not indicate the number of spaces available or the type of parking available (short term or long term).

A new wayfinding system should include a hierarchy of easily identifiable signs, providing a logical progression from the major approaches to the centres, onto the main streets within the centre and then through to individual car parks. It is recommended that wayfinding signage is installed initially on all main routes into each high activity centre. Additionally, signage should promote walking times to nearby destinations such as cinemas, Leederville Oval, the TAFE and train stations.

3.3 Unify management of adjoining car parks

Several privately owned car parks provide separate bays for the various businesses in the centre they service. The boundaries of these various parking areas are not clear to drivers and the signage is confusing. The car parks are not well presented and the fragmentation of parking inevitably means that the available parking is not fully utilised.

Examples are the Leederville Village Shopping Centre, car parks off Flinders Street Mount Hawthorn, areas of the View and Wasley Street car parks, and areas of the Raglan Road and Chelmsford Road car parks.

An opportunity exists to consolidate the management of these and other similar areas and thereby maximise the use of the available parking capacity. With consistent external and internal signage and some upgrade, there will be more effective sharing of the parking, a better perception of the availability of public parking in the Town and improved security. This will result in more confidence finding a bay, less congestion on the streets and more effective use of total parking supply.

Subiaco for example has outsourced the management of some consolidated Council and privately owned parking areas south of Rokeby Road between Hay Street and Roberts Road. This strategy has been successful in providing the public with a well presented large parking area close to the Regal Theatre. The car park is used at all hours seven days a week. A fee is payable and the net income is distributed pro rata between all the owners.

While it is not suggested that the Town outsource its parking, it is recommended that the Town approach the various owners of off-street parking and negotiate to permit the Council to take over the management of all the parking in each area as a single car park. Councils' rights and obligations will need to be specified and some provision may need to be made for special users. Council will also need to expand its enforcement resources.

In exchange for Council receiving any infringement or other income that may be generated from these sites, Council will agree to reinvest in upgrading all of the sites with signage, lighting and other measures. The upgraded presentation and the consolidation of the management of off-street parking in the Town will yield benefits for all stakeholders including customers, retail and commercial tenants, landlords, the Town of Vincent and the general public.

3.4 Future changes in parking supply

3.4.1 Concessions

As soon as practical, the Town should widen the criteria which may be applied to reduce the number of parking spaces to be provided with new developments or changes in use to encourage applications for shared parking. The chart in Section 12 – Recommendations of the Draft Parking Strategy included recommended changes to the Shortfall Parking Table.

3.4.2 Parking ratios

Over the next 3 to 8 years, the existing parking ratios within the Town's Parking and Access Policy should be amalgamated into fewer categories to simplify administration and in recognition that most are only approximations in any case. The individual standards should also be reviewed where information is available that would support a change.

For example in the Town's Land Use Parking Requirement Table, within the Town's Parking and Access Policy, any office requires 1 space per 50m^2 GFA. There are more than 20 classifications for shops. The parking space requirements for these vary from 1 per 10m^2 GFA for an arts and crafts centre, to 1 per 15m^2 GFA for a fish shop, to 1 per 20m^2 GFA for a laundromat. For a bank, the rate is 1 per 50m^2 Gross Office Area plus 1 per 15m^2 Gross Retail Area. A restaurant requires 1 space per 4.5m^2 of public area.

Believing that the problem is a parking shortage, planning requirements, (which are based on estimates determined in the 1950's and 1960's) require enough off-street parking to satisfy the peak demand for free parking. However, the minimum parking ratios in the high activity centres appear to exceed the peak demand requirements as evidenced in the Parking Survey.

The existing parking requirements (ratios) have several important deficiencies:

1. They do not distinguish between short stay/operational needs and staff/employee parking.
2. They do not take into account the use of alternatives to the single occupant car.
3. They assume each development provides its own on-site parking and do not allow for potential efficiencies through the sharing of parking between activities with different peak parking demand profiles.
4. They assume that all parking will always be free.

To put the ratios in some perspective, assume a 10,000m^2 GLA office development with 333-400 employees (25m^2–30m^2 GLA/employee) and assume that visitor/operational parking demand is equivalent to 20% of the employee demand, then:

- If 95% employees come by car at a vehicle occupancy of 1 person/car, the parking requirement is 380-456 spaces or approximately 1 space per 22-26m^2 GLA.
- If 85% employees come by car at a vehicle occupancy of 1.2 persons/car, the parking requirement is 283-340 spaces or approximately 1 space per 30m^2-35m^2 GLA.
- If 70% employees come by car at a vehicle occupancy of 1.5 persons/car, the parking requirement is 186-224 cars or approximately 1 space per 45m^2-55m^2 GLA.

While the resulting ratios vary according to the floor space per employee and assumed proportion of visitor parking, the above indicates that:

- a requirement of approximately 1 space per 20m^2 assumes a very high car use
- a requirement of approximately 1 space per 30-35m^2 appears to be reasonably representative of current conditions in many centres
- a requirement of 1 space per 45m^2 is broadly appropriate for planned future conditions.

The Town's Parking and Access Policy requires 1 space per 50m^2 of office and 1 space per 15m^2 for a liquor store.

This requirement for excessive supply is common to many WA councils. As the Town does not have adequate resources to empirically assess actual demand for free parking, it is an option for the Town to formulate a combined request with other metropolitan councils to the West Australian Local Government Association ("WALGA") to undertake a review of current ratios. It would clearly be preferable if the various Councils had the same set of standards. This would make it easier for applicants, as they would only have a single set of standards to refer to, and it would encourage Council staff to share information and knowledge. Alternatively, it is recommended the Town commence a review of its standards preceded by surveys of actual usage in each activity centre. These surveys are to be repeated every 2 years on the same date.

This exercise was undertaken in Victoria in 2008. (Refer Appendix A of the Draft Parking Strategy). The Victorian study showed generally that minimum parking requirements are excessive, for example, food premises, including restaurants, taverns and convenience food only required 3.5 spaces per 100m^2 leasable floor area (i.e. 1 per 28.6m^2).

3.4.3 Maximum parking ratios

The ability of the road system accessing some of the high activity centres may become a constraint in the longer term as the Town develops. The total supply of long stay parking may need to be capped to ensure that the traffic generated in peak periods does not exceed the capacity of the road network, once due allowance has been made for through traffic.

In the longer term, the implementation of maximum parking ratios for new developments may be appropriate. This should be accompanied by the specification of criteria which would be used to consider applications for parking amounts above that permitted by maximum ratios, and by the identification of measures which could be used to manage on-street parking in the area and to protect adjacent residential areas from possible spill-over parking.

On site parking ratios for some of the higher density precincts should be changed from minimum standards to maximum standards. Maximum parking standards should be planned to come into effect from 2014 in Leederville and Mount Lawley/Highgate and the Perth precinct, and a few years later (2018) in Mount Hawthorn and North Perth. They should be reviewed after they have been in place for approximately 5 years.

For example, the maximum standards for employee parking in new office developments in Leederville within 400m walking distance of the rail station should be based initially on a 75% car mode share. This will result in a maximum parking ratio for office/commercial development of 1 space per 40 m^2 GLFA assuming current vehicle occupancies of 1.2 persons per vehicle and an average of 25m^2 GLFA per employee. (The vehicle occupancy of 1.2 persons is probably conservative in view of recent sharp increases in the price of fuel and greater emphasis on workplace travel plans. However, the floor space per employee may be lower in some instances.)

The public transport mode share for the trip to work is likely to drop relatively quickly with increasing walking distance from the public transport station or stop. To reflect an anticipated reduction in public transport use based on walk distance from stations or stops on major corridors and encourage development close to stations, it is recommended that office standards assume an 80% car use for sites in the range 400-800m from the station or bus interchange.

Visitors to office/commercial developments should be encouraged to use short stay parking provided nearby on-street or in a convenient parking facility.

For all other non-residential developments in activity centres and growth corridors, it is recommended that the maximum parking standards be set at 90% of the current minimum standards.

These standards should be reviewed regularly to take into account changes in the use of alternatives to the car, vehicle occupancies etc., and experience gained in using maximum standards.

3.4.4 High density developments

The High Density Residential Parking Survey[2] found that as more and more new developments are constructed with reduced parking supply, pressures on on-street parking in adjacent residential areas are likely to increase. It will be necessary to monitor the situation and to introduce and enforce parking restrictions such as 2P parking on residential streets when pressures from all-day commuter parking start to develop.

In some instances where resident parking off-street is limited it may become necessary to consider the further resident priority parking schemes where supported by the residents.

For new high density residential developments, on-street parking should be time restricted during the day to cater for visitors. Resident parking needs can be reduced through encouraging walking, cycling, use of public transport, car share clubs, the use of shared parking, car pooling, or the lease of spaces after hours in an appropriately located parking building.

[2] Town of Vincent High Density Residential Parking Survey, 17 March 2009

4 Implementation of parking measures

The following are to be considered in implementing the objectives of the Draft Car Parking Strategy in the Town's high activity centres.

4.1 Shared parking

The Town is to encourage practical shared parking initiatives for property developments in its high activity centres.

Shared parking takes advantage of the fact that most parking spaces are only used part time by a particular motorist or group, and many parking facilities have a significant portion of unused spaces, with utilisation patterns that follow predictable daily, weekly and annual cycles. Parking can be shared among a group of employees or residents. It can also be shared among different buildings and facilities in an area. Land uses such as offices, professional services, medical facilities, and banks typically have weekday peaks, whereas restaurants, cinemas, bars etc. have evening peaks. Shops and malls can have weekend peaks.

Acceptable walking distances[3] to shared parking include distances of:

- less than 250m for residents, professional services and medical facilities (< 3 minutes)
- less than 350m for general retail, employees, restaurants etc. (< 5 minutes)
- less than 500m for overflow parking and major events (< 8 minutes).

In Sections 5 – 9 of this Report the radius of less than a 5 minute walk from the centre of the commercial precincts is illustrated.

Where structured parking is required, each parking space saved through shared parking represents a potential saving of $27,000 (2007) in deck parking structure construction costs. There are many opportunities for shared parking in private and public car parks within 400m of the intersections of the main streets in each high activity centre. Many of these areas should be available to other users outside of normal business hours. For example:

- the Water Corporation parking
- the Mezz Shopping Centre
- behind the Paddington Ale House
- the Queens Hotel
- St Marks School
- signage should be installed clearly permitting loading zones to be used after hours for parking on main streets.

4.2 Cash in lieu

Many cities give developers the option to pay a fee in lieu of providing the required number of parking spaces.

Cash in lieu provides many benefits. Developers obtain flexibility and make fewer demands for concessions. It provides drivers the opportunity to park once and visit multiple sites on foot, rather than park in the exclusive spaces provided by businesses which have their own parking. Public parking spaces built with the revenue from cash in lieu allow shared parking among different sites with differing peak parking times and therefore fewer spaces are required to meet the combined peak parking demand. Parking requirements generally require at grade parking for smaller buildings. Cash

[3] VTPI "Online TDM Encyclopaedia" (http://www.vtpi.org/tdm)

in lieu allows business to meet their parking requirements without on site parking resulting in better urban design and a safer, more walkable city.[4]

There are two basic approaches to setting cash in lieu fees. The first is to calculate an appropriate fee on a case by case basis for each development or change in land use. The second is to charge a uniform fee for all projects. The case by case approach is complicated, time consuming and expensive to administer. It also creates uncertainty for developers.

It is therefore recommended that the Town continues with a uniform fee for all parking cash in lieu. The two issues that then need to be addressed are the actual fee, and the entitlements of the developer/landlord who has paid the fee.

Fees charged by cities in Australia, the USA, Canada, the UK and other countries vary from a percentage of the cost of constructing a space in a deck parking facility ($27,000 in Perth in 2007) to the expected NPV (net present value) of the capital and operating costs of the space minus the expected net income from charges for parking in the structure over a 30 year term. The cash in lieu calculation here is therefore the expected value of the parking subsidy implicit in constructing a new parking space. The cost of land is not included in this calculation.

The other important purpose of cash in lieu is that it reveals the high cost of providing parking spaces especially if they are subject to a low parking fee or are expected to be free. Developers have the choice to pay for or provide their own parking and the flexibility to charge a fee for its use or provide it for free. Note that developers who pay the cash in lieu do not subsidise the Town, and the Town does not subsidise developers. Developers subsidise parking.

The current cash in lieu fee of $2,800 per space in the Town is only 10% of the true cost of constructing a space in a deck car park. It is therefore recommended that the Town adopts a timetable to increase the cash in lieu fee by an additional $2,800 each year from 2010 so that in about 10 years, a more equitable percentage of the true cost of providing parking spaces by the Town is recoverable from developers.

A number of cities that use cash in lieu to improve access, which may include the provision of parking spaces, do not guarantee when and where the spaces will be provided. Accordingly, there should not be a right to any refund if parking is not constructed as the funds may be used for other purposes (e.g. cyclist end of trip facilities) which reduce the demand for parking. Similarly there should not be any right given over a parking space to a developer, other than what the developer provides. The Draft Parking Strategy recommends the deletion of Section 11 (xi and xii) of the Town's Parking and Access Policy, whereby a contributor to cash in lieu may obtain a refund or a free parking pass.

4.3 Introduction of pay parking

The introduction of pay parking on-street should be considered when regular peak hour demand is starting to exceed 85%. It is also important that the 85% occupancy is occurring with **compliant** parking. Adequate enforcement, therefore, will need to be ensured prior to any decision to implement pay parking. Parking enforcement hours should include all periods of peak demand.

The implementation of pay parking on street is designed to save cruising time, reduce traffic, conserve energy, improve air quality and increase income to the Town. More specifically, if the price of on street parking is set to keep about 15% of spaces vacant, drivers will generally always be able to find a space at their destination.[5] On street parking fees should be 15-20% higher than equivalent off-street parking charges to reflect the premium nature of kerbside parking and to encourage drivers to use the off street facilities.

[4] The High Cost of Free Parking by Donald C Shoup. American Planning Association 2005. Chapter 9

[5] Shoup. Chapter 12

When applying this criterion, consideration should be given to adjacent streets where regular peak hour demand may rise as a result of the implementation of pay parking in areas where demand already exceeds 85%. This will require regular bi-annual surveys of parking demand in these areas.

It is recommended that the Town undertake a parking survey in 2013 updating the 2008 survey to assess any changes and take appropriate action, and use the results, supplemented by additional surveys as required, to identify locations where parking charges should be introduced or increased.

4.4 Parking for residents and managing spill-over

4.4.1 Resident priority schemes

There are some people in the Town who object to having the streets in front of their homes in constant use for parking. There have been requests from some of these residents in living near the high activity centres to introduce resident only parking permits in their street.[6]

One suggestion is that all residential streets close to the business precincts should be made "Residential Parking only".

While it is true that unrestricted application of resident parking permits that reserve all the on-street spaces for residents and their visitors will prevent spill-over from adjacent commercial areas, they also leave many unused on-street parking spaces, especially during the working day.

This is evident, for example, in many streets such as Barlee, Clarence and Roy in Mount Lawley, Brookman and Robinson in Perth, Menzies and Leake in North Perth, and Richmond in Leederville, all of which are seldom more than 50% occupied during the day. A resident permit only parking scheme in these streets would be an unnecessary over-reaction to the spill-over problem[7]. It would preclude shared parking opportunities and would have a negative impact on businesses in the precinct.

Robinson Avenue between Lake and William Streets is a resident permit zone where parking bays are seldom more than 40% occupied.

It must also be communicated to residents that on-street parking is a public resource provided for a community and it should be available to all drivers. Parking exclusive to residents results in the inefficient use of a community asset.

Demands for resident parking typically result from spill-over parking. Spill-over problems refer to the undesirable use of on street parking by customers and employees of nearby businesses, or occasionally as a result of major events in an area.

It is significant to note that regulation of parking will not in itself curb anti-social behaviour, excessive noise and litter. It is also important that spill-over issues should not be used to justify excessive parking supply. The combined implementation of regulations, pricing and strict enforcement can reduce the need for additional supply.[8]

It is recommended to identify existing and potential parking spill-over effects. Where appropriate, implement measures to protect adjacent residential areas such as on-street time restrictions and residential parking schemes.

6 Despite Luxmoore contacting 4 people who attended a Public Meeting on 23 April 2009 and offered to participate in the development of the PPMP, only one responded

7 The High Cost of Free Parking. Donald C Shoup. American Planning Association 2005. Chapter 17

8 Parking Management Best Practices. Todd Litman. American Planning Association 2006. Chapter 5

4.4.2 Parking for businesses

Many businesses fear that reduced parking supply will discourage customers. Parking management strategies such as those recommended in this Report and in Sections 7 - 12 of the Draft Car Parking Strategy improve overall accessibility and user convenience. If an area is attractive, if short term parking is convenient, and if businesses offer good value and services, customers are usually willing to pay for parking. Businesses should also be pro-active and encourage their staff to use remote parking locations and offer parking fee discounts to customers. This can only be achieved with modern parking technology and with the commitment by the Town to more innovative parking initiatives which, in turn will require additional resources and technologies.

It must be acknowledged that local businesses require an adequate supply of short stay parking. This has been endorsed by a petition, received on 23 April 2009 from 10 businesses located in and adjacent to the Alexander Building at the intersection of Beaufort and Walcott Streets, Mount Lawley. The petition requested increased short term parking in the Raglan Road off-street car park, especially for high churn, convenience shopping.

Assuming there is an insufficient supply of short stay off-street parking for business, and there is insufficient on-street short stay parking on the nearby non-residential streets, spill-over into adjacent residential streets can result. As this parking is necessary from an economic perspective, time-restricted parking is then appropriate on these streets.

As new developments are constructed with reduced parking provision, pressures on on-street parking in adjacent residential areas are likely to increase.

The provision of some long stay/unrestricted parking for employees working in the general area is both reasonable and necessary. Even with good public transport, and some employees walking or cycling to work, provision may need to be made for some employees who work in the area, to bring their car to work. This parking could be 5 minutes (400m) walk or more from the place of employment, but it needs to be available.

It is also necessary to review the current time restrictions in place in some of the residential streets which are more remote (>250m) from business area. In some streets, such as Alma Road and Leake Street, North Perth, the current time restrictions are no longer necessary and could be eliminated or reduced to allow parking for employees. It is recommended that current restrictions in streets more remote from the business areas are reviewed to assess whether they can be modified. It is also noted that the Town's Technical Services department provide details of all parking restrictions applicable in the Town in a readily accessible format.

4.4.3 Resident parking schemes

There are several ways to address spill-over problems, such as regulating parking with the use of time restrictions and permit schemes. The most effective means is to use pricing, such as charging non-residents to park on residential streets.

Resident parking schemes can take the form of time restrictions combined with resident parking permits, or parking meters with exemptions for residents.

Residents can purchase permits which strictly identify the vehicle and the street in which it may park and the times it may park. Alternatively, fees can be collected by the implementation of parking meters with residents having a permit/card which allows them to park. The Town currently provides permits at no charge. It is recommended that an annual charge of $50 per permit is introduced to cover administration and enforcement costs.

Another option is to offer parking on the street to non-residents between certain times if they pay a fair market price. This can be achieved by the sale of non-resident permits. In many cities where this system applies, the system is successful and resident acceptance has been high because the net

income generated from the sale of non-resident permits is earmarked to fund additional public services in their street or in the immediate precinct. These 'parking benefit districts'[9] are a compromise between free on-street parking that leads to overcrowding and residential permit parking that leads to under use. The parking benefit district is better for both residents and non-residents. Residents get some public services paid for by non-residents, and non-residents get to park at a fair market price rather than not at all.

4.4.4 Parking benefit districts

Should spill-over problems persist or develop over time, the second stage is to implement resident priority schemes in appropriate locations. This can be through introducing pay and permit parking on the streets in the residential areas, or through converting the streets to parking benefit districts.

Parking benefit districts can be implemented incrementally, one street at a time. For example, Harold Street between Stirling and Beaufort Streets could be identified as a parking benefit district, and parking permits sold at a fair market price for parking between 0730 and 1730 Monday to Friday, to the commercial businesses. The fair market price is the price which ensures sufficient vacancies (minimum 15%) for residents who park for free, and non residents who pay to park. It could initially be set at $5 per day, equivalent to a two-zone public transport fare. Other opportunities are Brookman Street, Perth, Fairfield Street, Mount Hawthorn, View Street, Alma Road and Raglan Road, North Perth, and Carr Place, Leederville.

4.4.5 A compromise solution

It is recommended that instead of making all residential streets near to the business precincts "Residential Parking only" a compromise solution is implemented incorporating the measures suggested below.

The Town should establish a monitoring program to identify where and when spill-over problems occur. This includes parking utilisation and duration surveys, but can also include the establishment of a hotline for residents and businesses to report spill-over problems.

It should initially be ensured that:

- there is an insufficient supply of (on-street and off-street) short stay parking to meet the business needs in the area, and as a result, some on-street parking for business customers has become necessary on nearby residential streets
- spill-over parking from nearby business activities has been identified as an important issue for residents on streets affected by this parking.

Once this has been established, action is required that will provide an equitable solution that meets the legitimate needs and concerns of both parties. This should include measures to protect residential areas from commuter parking and any business spill-over parking in locations where problems have been identified, and measures to improve the supply of short stay parking for businesses needs.

In addition, the Town should ensure to the extent practicable, that there is an adequate (reasonable minimum) supply of long stay parking for employees within reasonable walking distance of their place of work.

Once this is in place, measures should be taken to protect residential areas from commuter parking and any business spill-over parking, in locations where problems have been identified.

[9] Shoup page 435

Examples of appropriate initial measures include:

1. Introducing parking restrictions such as 2P parking on residential streets when pressures from all-day commuter parking start to develop, such as in:

   - Broome Street near Beaufort Street, Highgate
   - Brisbane Place, Perth
   - Leake, Wasley, Forrest and View Streets, North Perth

2. Installing paid parking throughout The Avenue, Frame Court, Chelmsford Road and Raglan Road off-street car parks to encourage short term parking. This should be implemented simultaneously with expansion of the time restrictions in surrounding streets.

3. Investigating and where feasible, implementing measures to provide some parking for displaced employees within a reasonable distance of their place of work.

4. Clearly indicating with frequent signage, the approximate walking times to areas of unrestricted all day parking.

4.5 Overflow parking

It is recommended that the Town urgently set up an overflow parking plan for special events and peak demand periods. Practical methods of dealing with overflow parking issues (such as set out in Appendix D) reduce parking demand and traffic congestion and confusion. They are particularly appropriate at any location where peak parking demands creates problems e.g. Members Equity Stadium.

They require the establishment and communication and marketing of alternative and remote parking facilities, combined with secure pedestrian access. Costs will include additional staff time, equipment and special services. The additional management and enforcement costs can be offset by increased income from pay parking and fines.

The Town needs to establish and clearly communicate clear rules to inform drivers where and when they may or may not park. This requires not only clearer signage, but also advance notification of nearby options (wayfinding signage and maps).

The overflow plan must be supported by effective enforcement systems. (For example Christchurch in New Zealand adopts a “zero tolerance” approach towards parking infringements including monitoring, fines and even towaways). Increased enforcement is to be applied in certain areas especially at times which attract crowds. This is likely to require additional staff resources.

4.6 Parking Control and Management Plans

All new developments, or applications for change of use are to provide a **Parking Control and Management Plan** (“PCMP”) with applications for developments with more than 10 parking spaces (refer Section 6.2 and Table 5 of the Draft Car Parking Strategy). This is a practical recommendation for developers or owners where there is a change of use, to set out in detail how parking in the proposed development will be controlled and managed.

4.7 Developments seeking more than 50 parking spaces

All applications for developments seeking more than 50 parking spaces will be required to follow a discretionary resource consent process.

Criteria that may be considered in the exercise of discretion include:

- delayed implementation of planned public transport improvements serving the development
- evidence based on similar developments in comparable locations with a similar quality of access by non-car modes justifying a higher parking provision than permitted by the parking
- unique characteristics of the development such as night activity or a requirement that clients carry large items.

All applications should be accompanied by a Parking Control and Management Plan and Travel Plan which should include the following:

- existing local and regional land use and transport strategies and plans applying to the town centre or Growth Corridor concerned
- the transport system serving the site including any planned improvements, and the means by which employees and visitors will access the site
- proposed means of encouraging more use of public transport, walking and cycling for travel to the site
- proposed means of encouraging higher vehicle occupancies for travel to the site particularly for the trip to work
- the proposed parking on site for employees and visitors/customers and how this contributes to achieving the above.

The Travel Plan will provide the basis for any subsequent auditing to establish compliance and as a benchmark if parking on site proves insufficient.

4.8 Motorcycle and scooter parking

The provision of motorcycle parking (which includes scooters) in privately owned car parks where parking ratios are in place is a matter for the owner/operator to determine. Motorcycle parking can reduce the amount of space required for parking and by so doing, reduce development costs.

Assuming 2% of vehicles are motorcycles and five parked motorcycles occupy the same space as two cars, then a 250 space car park should provide sufficient space to provide for five motorcycles and this would result in a net saving of two parking spaces. With a 4% mode share target, these numbers would double.

As motorcycle parking and mobility scooter parking is very likely to increase in importance in response to higher fuel costs and an ageing population, it is recommended that public and private car parks initially assume that 2% of vehicles are motorcycles or scooters. This figure should be reviewed based on demand, and in light of experience at each site where demand requires, preference should be given to converting motor car spaces to motorcycle or scooter parking.

It is recommended that more motorcycle parking spaces can be introduced in several of the off-street car parks.

4.9 Bicycle parking

On-Street

One or two bicycle stands for short term visitor/customer bicycle parking should be provided on average every 50m on streets in the retail core of the business precincts. They should be located within 20m of pedestrian access to a destination, with good passive surveillance and lighting. The bicycle parking should not block the footpath and should be undercover where feasible.

Off-Street

While cycle parking buildings are not anticipated to be required in the Town, where demand in an area regularly exceeds supply, preference should be given to the provision of suitable end of trip facilities, if not already available. The facilities should incorporate high quality lockers, showers and toilets together with bicycle storage. A fee for the additional services can be charged. Refer to the Cycle2city facility on the Brisbane City Council website.[10]

4.10 Mobility parking

As it is difficult to provide spaces on-street for mobility parkers in accordance with the relevant design standards, mobility permit parking on-street is to be given a low priority. Mobility parkers' requirements for wider bays, kerb ramps and greater peripheral safety are better achieved by providing them a high priority off-street.

The Building Code of Australia sets down the minimum ratio of parking bays that must be provided for people with disabilities. A ratio of 1% of the total number of parking bays in a car park with more than 10 spaces was set in 1988. The Australian Building Codes Board ("ABCB") review of the ratio of parking bays found that whilst 1% of parking is provided, the people who use it now represent 3% of the population. The difficulty now is how to find a way to implement an increase that will be effective for people with disabilities. The new draft of the Australian Standards (AS1428.1) recommends that the current parking bay allocation be increased from 1% to 2%.

The Town have been operating a system of narrow ACROD bays for a number of years in recognition that larger sized bays are not always required. The Town introduced its own legislation for these bays. The Town's policy is for a minimum of 3 ACROD bays per 100 parking bays[11].

ACROD bays are provided in car parks as follows:

- 1 (2%) in Barlee Street, Mount Lawley
- 4 (2%) in Brisbane Street, Perth
- 1 in each of Brisbane Place and Forbes Road, Perth
- 1 in Wasley Street, North Perth
- 2 in View Street, North Perth
- 13 in The Avenue and Frame Court, Leederville.

10 www.cycle2city.com.au

11 www.vincent.wa.gov.au/3/442/1/acrod_parking.pm

4.11 CPTED

Crime Prevention through Environmental Design (CPTED) principles should be applied to the car parking facilities throughout the Town. The design of the off-street car parks should create an environment where the community and visitors to the Town's high activity centres can feel safe.

The off-street car parks are generally not well signed nor well lit.

It is recommended that the Town undertake further improvements to all off-street car parks and apply CPTED guidelines to improve security.

4.12 Parking permits

Currently the Town sells a limited number of pre-paid parking permits at $95 per month (equivalent to $4.30 per day). These are provided for the off-street car parks as specified on the permit. Currently, approximately 200 permits are issued by the Town each month, 140 of which are issued for the car parks in the Leederville area, the remaining permits are available for the Barlee Street, Raglan and Chelmsford Road, Mount Lawley/Highgate and Brisbane Street, Perth car parks. Supply is based simply on demand.

As the Town sells this permit at a discount of more than 50% of the all day fee. This provides little incentive to use public transport. It is recommended that the Town cease offering a discounted monthly prepaid parking permit.

4.13 Pedestrian routes

Walking routes between off-street parking facilities and key locations such as the town centre core, community facilities and a transport interchange, should be direct, safe and pleasant. Where feasible they should take the pedestrian past active shop frontages.

Pedestrian access to The Avenue car park is from Vincent Street or through an arcade from Oxford Street or via an unattractive laneway from Oxford Street near Kailis. It is important that this laneway be upgraded with lighting, surface and signage improvements to increase its usage.

Where a parking facility access crosses a footpath, the design together with signage should make it clear that pedestrians have priority over vehicles. This is currently not the case at the entry to the Frame Court car park opposite the pedestrian ramp to the train station, at the entry to the Leederville Village from Newcastle Street and at the entry to The Avenue car park from Vincent Street.

As more pedestrians use car parks than vehicles, it is recommended that the Town commit to upgrading the major pedestrian thoroughfares to and within all public off-street car parks.

4.14 Education

The broader environmental, economic and social impacts of parking are rarely understood or appreciated by motorists. The clamour for "more parking" has been allowed to develop without any communication of its negative effects and growing unsustainability. An improved and ongoing campaign of communication on the unsustainability of current parking practices and on the benefits of parking management is required.

Everyone who drives a car is a stakeholder. The education program needs to be aimed at all stakeholders including planners, developers, designers, retailers, tenants, elected officials and council officers, business and community groups, schools, residents visitors, commuters and the general public.

It is recommended that education on the need for, and benefits of managing parking demand should be available and regularly communicated in Council publications. As a minimum, it should deal with the following issues:

- drivers cannot expect unlimited parking close to their destination
- unlimited supply has environmental, social and economic drawbacks
- the principle of User Pays as free parking has a high direct and indirect cost
- need for sustainability planning
- the provision of commuter parking away from the inner core of high activity centres
- benefits of improved compliance
- benefits of Parking Control and Management Plans
- options for reinvestment of income from parking services and cash in lieu into improving transport infrastructure
- the advantages of parking benefit districts.

The Town can also offer to enforce parking regulations on private property allowing the Council to collect additional income and be reimbursed the costs of the necessary additional resources. In order to provide this regularly requested service, it is recommended that the Town take on additional staff and purchase improved enforcement technologies.

The Town's media and online publications are to reinforce the unsustainability of current parking practices and the benefits of managing parking demand.

4.15 Park and ride

Park and ride located within a high density development centre brings extraneous traffic into the centre which can detract from the centre's walkability and amenity while adding little to its economic vitality. It should be avoided where possible, and alternative sites should be provided which contribute to public transport patronage without detracting from land use development objectives. The Town's high activity centres are generally well served by bus services from surrounding suburbs. Public transport users should be encouraged to use these services rather than drive to a parking space in the centres.

4.16 Parking technology

Surveys of demand and duration patterns should be undertaken regularly, at least every five years. The results will help decision-making on time restrictions and the possible expansion of pay parking. These surveys should also query the origin of parkers in order to build a profile of visitors and commuters and their likely target area to search for parking.

For those areas where pay parking is introduced, it is essential that the ticket parking machines to be installed are capable of providing sophisticated management reports on volumes and occupancy. This data can then form the basis of forward pricing decisions. Modern technology for the new on and for all the off-street pay parking areas, will provide greater user convenience (credit card payment) and options for businesses to pay for the parking of their clients.

4.17 Installation of new ticket machines

In Sections 5 – 9 additional pay parking is recommended in several streets. The Town currently has more than 5 different types of machine which vary between 6 and 18 years old. They provide few additional benefits other than simply accepting coins and issuing tickets. They provide a minimal level of service and convenience to drivers, and very little management reporting.

It is recommended that the Town's ticket parking machines are replaced within a few years as part of an overall parking meter replacement program together with the purchase of additional machines required.

Details of new locations are set out in Appendix C.

Figure 1: Solar powered parking meters with several options for payment

It is no longer necessary for organisations such as the Town to allocate funds in advance of the purchase of pay parking meters. Most suppliers will provide finance arrangements whereby the cost of capital can be amortised over several years and paid for from the future income earned by the machines. It is estimated that the pay back period for new meters in the Town will be less than 2 years.

The implementation of pay parking requires an understanding of many of the issues and processes that need to be considered before, during and after the implementation of pay parking. These are dealt with thoroughly in a paper entitled *Considerations for the Installation of On-Street Pay Parking*[12] which is attached to the Draft Car Parking Strategy.

The following table compares the parking meter technology available and supported elsewhere in WA with that currently installed in the Town.

[12] Considerations for the Installation of On-Street Pay Parking – by Larry Schneider of ARRB Group Ltd., presented to Canadian Parking Convention, October 2007.

Table 1: Parking meter technology comparison

New Technology	Current Technology in the Town
Support available in Perth for several different products with many other users, e.g. Subiaco, Joondalup, Cambridge, Perth, Fremantle	Supplier no longer exists. No support in Perth and no other council uses this technology
Constant wireless transmission of information and data	No information available on number of tickets issued, time of issue, cash received
Convenient payment options via credit card, smart card, coins and banknotes	Accept coins only. Requires parkers to obtain change from nearby shops
High level of reliability with uptime > 99%. Machines transmit fault signals if they are not operating.	Machines must be manually inspected every morning resulting in considerable labour cost
Solar powered machines do not require direct sunlight or trenching or cabling and can be relocated if necessary	Some machines require mains power if located in shade
Sophisticated anti vandal and anti theft features	Very basic features
Opportunities for customer service such as: • Links available to provide payment for customers parking at the discretion of a commercial tenant • Provision of a discount to specified cardholders such as disabled or pensioners who may receive the first 15 minutes free • Provision of an initial grace period e.g. for less than five minutes parking • Identification of resident permit holders, residents' visitors or business permit holders	None of these available
Opportunities to offer flexible parking fees at different times, e.g. a flat fee on weekends or for a special event. Remote programming.	Unable to provide this

4.18 Summary of recommendations for all the precincts in the Town of Vincent

The Town high activity centres

The short, medium and long term actions listed in each of the five PPMPs in Sections 5 to 9 are in addition to the actions identified below for all high activity centres. These common recommendations include:

	Action	Section Ref
High priority by 2012	Wayfinding signage is installed initially on all main routes into each high activity centre with additional signage which promotes walking distances	3.2
	The Town commences surveys in order to undertake a review of current parking ratios	3.4.2
	The Town is to encourage practical shared parking initiatives for property developments in its high activity centres	4.1
	Amend the cash in lieu policy	4.2
	Introduce pay parking on-street when regular peak hour demand exceeds 85%	4.3
	Ensure details of all parking restrictions applicable in the Town are easily available	4.4.2
	An annual charge of $50 per permit is introduced to cover administration and enforcement costs	4.4.3
	Offer parking on street to non-residents between certain times if they pay a fair market price, opportunities for these 'parking benefit districts' are Brookman Street, Perth, Fairfield Street, Mount Hawthorn, View Street, Alma Road and Raglan Road, North Perth, and Carr Place, Leederville	4.4.3/ 4.4.4
	Instead of making all residential streets near to the business precincts "Residential Parking only", a compromise solution is implemented	4.4.5
	Urgently set up detailed overflow parking plans for special events and peak demand periods	4.5
	All new developments, or applications for change of use are to provide a Parking Control and Management Plan (PCMP) with applications for developments with more than 10 parking spaces	4.6
	Cease offering a discounted monthly prepaid parking permit	4.12
	Education on the need for, and benefits of, managing parking demand should be available and regularly communicated in Council publications	4.14
	Recruit additional enforcement staff and purchase improved enforcement technologies	4.14
	Replace the existing ticket parking machines and install new machines with new technology	4.17 App. C

	Action	Section Ref
Medium priority 2013-2017	Approach the various owners of off-street parking and negotiate to permit the Council to take over the management of all the parking in each area as a single car park	3.3
	Amalgamate the existing parking ratios into fewer categories, and investigate replacing minimum standards with maximum standards in the longer term	3.4.3
	Amend the Shortfall Parking Table in the Town's Parking and Access Policy used to assess development applications to facilitate and encourage applications for shared parking; take into account reductions in demand through increased use of alternatives to the single occupant private car; and encourage the development of travel plans	3.4
	For new high density residential developments, on-street parking should be time restricted during the day to cater for visitors	3.4.4
	The Town's media and online publications are to reinforce the unsustainability of current parking practices and the benefits of managing parking demand	4.14
	Undertake a parking survey in 2013 updating the 2008 survey to assess any changes and take appropriate action and use results, supplemented by additional surveys as required, to identify locations where parking charges should be introduced or increased	3.1 / 4.3
	Identify existing and potential parking spill-over effects. Where appropriate, implement measures to protect adjacent residential areas such as on-street time restrictions and residential parking schemes	4.4.1
	Current restrictions in streets more remote from the business areas are reviewed to assess whether they can be modified	4.4.2
	All applications for developments seeking more than 50 parking spaces will be required to follow a discretionary resource consent process	4.7
	Undertake a city-wide programme in the Town for providing additional free parking for scooters and motorcycles	4.8
	Public and private car parks should initially assume that 2% of vehicles are motorcycles or scooters	4.8
	One or two bicycle stands for short term visitor/customer bicycle parking should be provided on average every 50m on streets in the retail core of the business precincts	4.9
	Undertake further improvements to all off-street car parks and apply CPTED guidelines to improve security throughout the Town	4.11
	Upgrade the major pedestrian thoroughfares to and within all public off-street car parks	4.13
	Surveys of demand and duration patterns should be undertaken regularly	4.16
	Investigate modern technology for the new on and for all the off-street pay parking areas, which will provide greater user convenience and options	4.16
	Continue to replace ticket parking machines within a few years as part of an overall parking meter replacement program together with the purchase of additional machines required	4.17

	Action	Section Ref
Low priority 2018+	Encourage development close to stations/bus interchanges by assuming an 80% car use for sites in the range 400-800m from the station or bus interchange	3.4.3
	Introduce maximum parking ratios for other non-residential developments in activity centres and growth corridors. The maximum parking standards are to be set initially at 90% of the current minimum standards	3.4.3
	As more new developments are constructed with reduced parking supply, pressures on on-street parking in adjacent residential areas are likely to increase. It will be necessary to monitor the situation and to introduce and enforce parking restrictions such as 2P parking on residential streets when pressures from all-day commuter parking start to develop	3.4.4

PRECINCT PARKING MANAGEMENT PLANS

5. LEEDERVILLE
6. MOUNT HAWTHORN
7. MOUNT LAWLEY / HIGHGATE
8. NORTH PERTH
9. PERTH

5 Leederville Precinct

Leederville is defined as the area bounded by Richmond Street, Loftus Street, the Mitchell Freeway and Oxford Street. The area includes the Loftus Centre off-street car park, The Avenue off-street car park and the Frame Court off-street car park. The area includes the TAFE located on the northern section of Oxford Street.

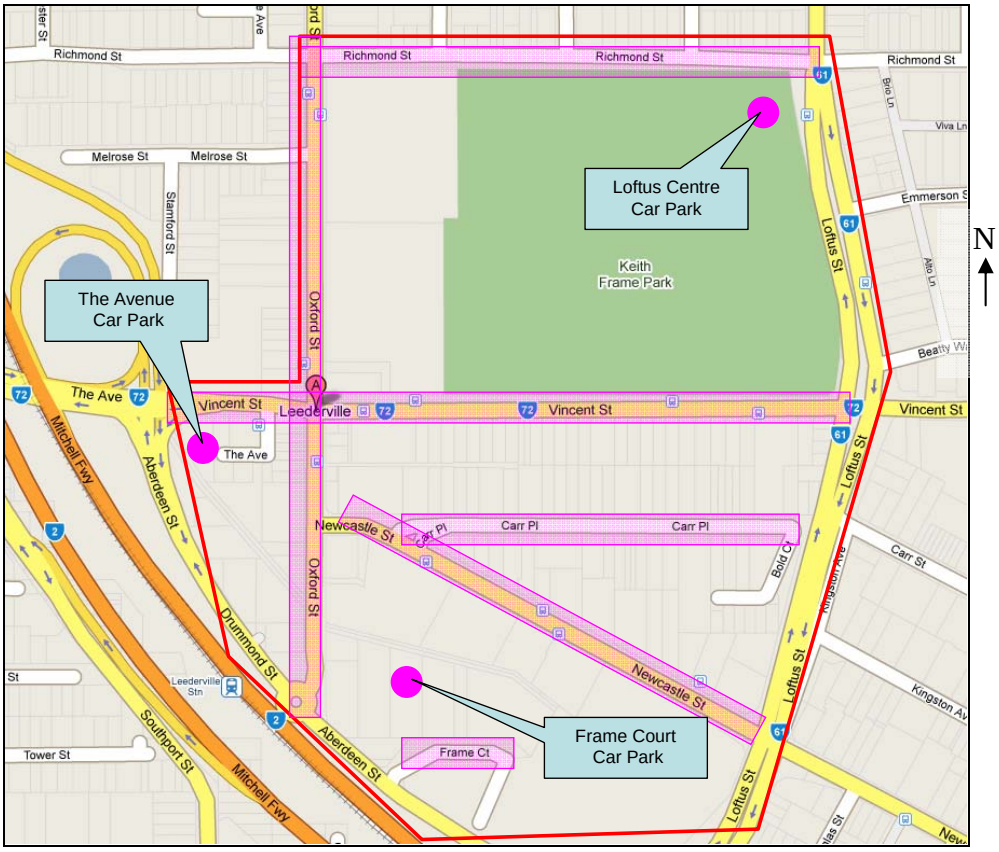

Figure 2: Leederville precinct boundary (demarcated by red line)

Leederville is a busy employment, retail, entertainment and education precinct, and has a high concentration of food outlets on Oxford Street. The Precinct has a principal function of meeting the retail, general commercial and community needs of the residents and workers in surrounding suburbs. Leederville is named as a key activity corridor in the Perth Planning Strategy, Network City (2006)[13] and has been identified as a District Centre in the Draft State Planning Policy – Activity Centres[14]. Almost 50% of Leederville's residents live in high density housing.

Leederville has three large at-grade car parks and the centre is well served by public transport east west (buses) and north south (train).

Leederville does not, however, have a well-developed bus interchange facility. It is also located in close proximity to the Mitchell Freeway and the Loftus/Thomas Street transport arterial. The Leederville Masterplan proposes building an additional 235 parking bays. Within this Precinct, the provision of bicycle storage and end of trip facilities is encouraged, with adequate parking to be provided and screened from streets and residences. Commercial car parking is required to be provided at the rear of properties and motorbike and scooter parking is to be encouraged.

13 West Australia Planning Commission
14 www.planning.wa.gov.au/Plans

The Avenue and Frame Court could be converted for motorcycles; 3 car parking bays on the south side of the Frame Court car park (opposite the café currently known as “Cranked”), as well as 3 bays in The Avenue on the east side of the premises (currently known as IGA). A number of motorcycle bays are already designated on Oxford Street.

Figure 3: Provision for motorcycle bays in Frame Court

The popularity of Oxford Street as a destination for cyclists should be encouraged by the provision of consolidated bicycle parking stands in the Frame Court car park. This could be incorporated on the north side next to the café currently known as “Cranked”.

5.1 Parking management issues & actions

5.1.1 The current situation

There are a total of approximately 1,302 parking bays in Leederville consisting of 449 on-street spaces and 853 off-street spaces in two car parks. Of the 1,302 parking spaces, approximately 876 spaces (67%) are unrestricted. Of the remaining 426 restricted spaces, 135 are time limited to 1 hour, 28 to 1.5 hours, 234 to 2 hours, and 29 to 3 hours. There are other parking restrictions including 5 minute pick ups, ¼ hour parking, motorcycle bays, disabled and ACROD bays.

The TAFE is located on the east side of Oxford Street between Richmond Street and Vincent Street and has its own private car park. The Water Corporation located on a site between Newcastle Street and Leederville Parade is the major employer in the area and also has its own private car park.

The results of the Leederville parking demand and supply surveys undertaken on Wednesday 5 and Friday 7 November 2008 are summarised in Section 5.4, Tables 3 and 4. Table 3 applies to three public off-street car parks in Leederville and Table 4 refers to on-street parking.

The surveys identified that overall there is currently good supply of parking in Leederville. The peak time occupancy of the available parking bays for Leederville was around 60%. Parking demand was fairly stable throughout the day, with occupancy ranging from a peak around 60% at midday and 45% in the evenings. A total between 82% and 79% of parked vehicles stayed for less than 3 hours, indicating that most parkers are short term. Most areas had a good level of compliance with parking restrictions, with the exception of Carr Place (30% rate of non compliance).

The Avenue and Frame Court car parks, however, both had high occupancy levels. A peak occupancy of over 90% was recorded at The Avenue over the mid-day period 12noon to 2pm on both survey days. At the Frame Court car park occupancy reached 97% over the period 12noon to 2pm on Wednesday, and 95% over the period 9-11am on Friday.

Occupancy at The Avenue car park was also high on the Friday evening reaching 89% between 7pm and 9pm. At the Frame Court car park, however, occupancy was only 57% from 7pm to 9pm on the Friday evening.

60% of the parking in The Avenue car park is restricted to 1P and 2P. There are no time restrictions in the Frame Court off-street car park.

Taking the intersection of Oxford Street and Newcastle Street as the 'focal point' of Leederville, a 5 minute walk distance (or a 400m contour) includes the following:

- The Avenue and Frame Court car parks.
- Oxford Street north of the intersection with Richmond Street.
- About 280m along Vincent Street (to the vicinity of the Early Childhood Centre access).
- Most of Newcastle Street between Oxford Street and Loftus Street.
- Carr Place.
- Frame Court.

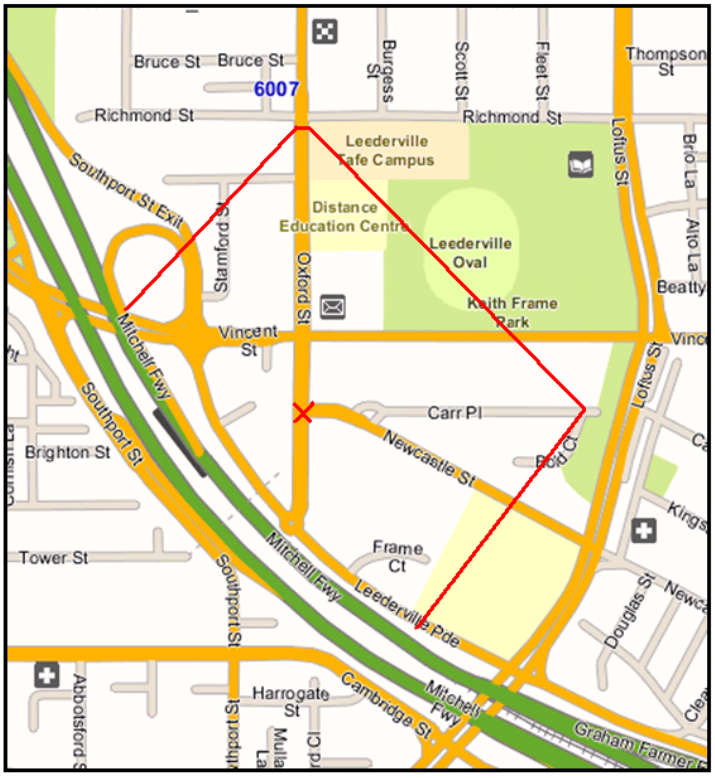

Figure 4 - Illustrates a 5 minute walk to the intersection marked "X"

There are a total of approximately 810 public parking spaces within a 5 minute walk of the Oxford Street/ Newcastle Street intersection. The Loftus Street car park is about a 10 minute walk (approximately 800m) from the Oxford Street/ Newcastle Street intersection.

5.1.2 Findings

The current parking restrictions in Leederville are complex and inconsistent and in places can be difficult to follow. Examples:

- The Avenue car park has a confusing mixture of parking times and paid or free car parking. 21 spaces are 1 hour parking, 160 spaces are 2 hour parking and 90 spaces are unrestricted. Some spaces are free, but it is not immediately clear that this is the case and it is difficult to identify the free spaces. Day parking is distinguished from night parking (after 8pm).
- Signs in a number of parking areas refer to both day parking and night parking, but not all areas require payment for parking after 8pm.
- The parking signs on Newcastle Street refer to day parking between 8am and 8pm, but the ticket machines refer to day parking between 8am and 10pm.
- The parking signs on Oxford Street south of Vincent Street refer to restrictions which apply up to 5:30pm. The implication is that parking is unrestricted after that time, but it is not clear whether this is indeed the case. To encourage shared parking, the unrestricted availability of these spaces after 5.30pm must be clearly shown.
- Elsewhere in the vicinity day parking applies up to 8pm including the 10 angle parked spaces at the southern end of Oxford Street.

With the exception of Carr Place, compliance with the posted parking restrictions appears good. Information in the March 12, 2009 edition of the West Australian indicates that the Town of Vincent's income from fines ($1,939,162 in 2007/08) is second highest in the metropolitan area after the City of Perth. This could indicate that the Council rangers are particularly vigilant. It could also indicate that the complexity of the current parking restrictions is contributing to the number of parking infringements.

The application of pay parking in car parks adjacent to Oxford Street while not charging for parking on Oxford Street itself is anomalous. As a guiding principle, on-street parking charges within 200m of public off-street car parks with pay parking should be set to at least 15% above the off-street fee to reflect the premium nature and convenience of on-street parking and to provide an incentive for drivers to park off-street. This suggests a fee of $2 per hour or 50c for 15 minutes for Oxford Street south of Vincent Street. Additional benefits of introducing pay parking on Oxford Street are that it would make it easier to enforce compliance with the time restrictions, and would ensure regular churn of vehicles both in the day and evening.

There is generally parking available within 5 minutes walk of the town centre core, which is not well used. The surveys demonstrate that during periods of peak parking demands during the day, parking is typically available in Newcastle Street, Vincent Street and Oxford Street north of Vincent Street. Measures to encourage more use of these areas would improve their utility to the centre and reduce pressure to provide additional spaces. The parking available on Vincent Street is not well utilised because of its location and its function as a major traffic route with clearway operation. It also has the highest hourly fee in the Town.

Up to 23% or approximately 50 bays at the Frame Court car park are used for long stay/commuter parking. This could be better used as short stay/visitor park to benefit the economy of the town centre. Almost one third of parking on Carr Place (approximately 24 spaces) is occupied by vehicles parking for more than 3 hours.

Although The Avenue reaches capacity on some evenings, the Frame Court car park has available capacity in the evenings which is not being used. Only limited evening use is made of the available parking in Newcastle Street and Vincent Street.

The wayfinding signage for the parking facilities in Leederville is poor. The signs are small and often difficult to see. There is no indication of the number of spaces available or the type of parking.

Improved signage would assist navigation by drivers; reduce the number of vehicles cruising the streets searching for a bay; and increase the perception of available parking within the centre.

There are 'P' signs on Vincent Street indicating that parking is available in the Leederville Oval car park after 5:30pm. A quick inspection indicates that there are over 70 bays available in the parking area closest to Vincent Street. There may be an opportunity to make more use of this parking area by improving (perceived) security and the pedestrian access to Oxford Street.

5.2 Parking management recommendations

The following short term, medium term and long term recommendations for Leederville were developed from the analysis and findings above.

5.2.1 Leederville - Short term (by 2012)

The focus in Leederville over the next 3 years should be on making more efficient and effective use of the available parking. Recommended measures are:

1. Significantly improve wayfinding signage to The Avenue, Frame Court and Loftus Street public off-street car parks from all destinations. This is to include signage in The Avenue giving detailed information of alternative parking available at Frame Court.

2. Convert the Frame Court car park from unrestricted parking to 3P parking to reduce use by commuters.

3. Apply a single hourly charge to all parking at The Avenue by removing the free parking spaces.

4. Amend the pay parking regime to apply to the period 7am to 7pm and 7am to 12 midnight for those parking bays where a charge applies for parking after 7pm. Remove the reference to night parking. Increase the maximum charge in the off-street car parks to approximately 5.5 times the hourly rate.

5. (a) Convert all parking on Oxford Street between the Leederville Parade roundabout and Richmond Street to pay parking with the exception of the motorcycle spaces.

   (b) At the same time also extend pay parking to the short section of Newcastle Street between Oxford Street and the Leederville Village Shopping Centre access (opposite Carr Place).

   (c) The location, south of Vincent Street, is a high-use area, which is full of parked cars for most of the day. Apart from a short period between 5pm and 6.30pm when the usage rate drops to around 70% this section of Oxford Street is full from around 8am to midnight on weekdays, and from around 10am to midnight on weekends. Anecdotally, a high proportion of the vehicles that park in this location, belong to staff from local businesses and their vehicles are moved from space to space every one or two hours to avoid the time restrictions. In many cases, because these vehicles move to a different side of Oxford Street, or to a different section of Oxford Street, they do not contravene the provisions of the local law. It is recommended that this portion of the street is restricted to a maximum of two hours.

   This will compel business owners and their staff to find remote parking where they can park for long periods or to convert to other modes. The increased availability of short term parking will enhance the viability of the area for bon-fide visitors and customers.

   (d) The introduction of ticket issuing machines in this section of Oxford Street will decrease the current kerbside usage rates, which in turn will ensure that there are adequate short-term parking facilities for patrons of local cafes and restaurants.

(e) The location, north of Vincent Street, is predominantly used, during the day, by some local staff, TAFE students and people who patronise local businesses. However, from around 7.30pm it is used almost exclusively by people who are going to the local cafes and restaurants, as well as those who are going to the Luna cinema.

6. Implement the parking fees proposed in Table 2 below. These include increasing The Avenue fee to $1.80 per hour; amending the maximum fees at The Avenue and Frame Court car parks; implementing a 50c for 15 minutes charge on Oxford Street south of Vincent Street; treating Vincent Street and Newcastle Street similarly; and removing the reference to separate night fees.

7. Adopt and implement a parking hierarchy in Leederville as set out in Section 4.7 of the Draft Car Parking Strategy. This hierarchy acknowledges that in certain streets a distinction of priorities needs to be made between user categories.

8. Upgrade The Avenue car park as an example of best practice. This includes signage, lighting, improving the pedestrian and traffic flow at the IGA entry and crossover area, improved bicycle parking facilities including relocating bicycle stands for short term visitor/customer bicycle parking, and improving the pedestrian link from the car park to Oxford Street at the south and north ends of the car park. Classification of signage is especially important.

9. Apply CPTED principles to the Frame Court car park to improve perceived security and the overall pedestrian environment to encourage greater use in the evenings. Upgrade the pedestrian route from the car park to Oxford Street.

10. Negotiate with owners of the Leederville Village Shopping Centre just south of the intersection of Newcastle Street and Carr Place for the Town to take over the management of the area as a single car park to improve utilisation and to upgrade the overall presentation (Section 3.3 above).

11. Encourage practical shared parking initiatives for property developments in Leederville, for example the Water Corporation parking.

12. Carr Place is identified as a parking benefit district (refer Section 4.4.4) and parking permits sold at a fair market price for parking between 0730 and 1730 Monday to Friday, to the commercial businesses.

13. Communicate the benefits of the above actions for all stakeholders in Leederville.

14. Investigate introducing a fixed fee of $3 to use the Leederville Oval parking area after 6pm on Wednesday, Friday, Saturday and other special event days. The fee could be collected by an attendant at the entrance to provide additional security, and the income generated used to further improve the security during the hours of operation to and improve the overall quality of the parking area.

Table 2: Proposed new parking fee structure - Leederville

Location	No. Bays	Current Fee p/h Time period* Restrictions	Maximum	Proposed Fee Structure
The Avenue car park	279	$1.60 or free 8am-8pm (8pm-8am) 1/4P, 1P, 2P or Unrestricted	$8.50 day $7.50 night	$1.80/hour 7am-12 midnight Retain1/4P, 1P, 2P, 7am-7pm No time restrictions after 7pm No maximum fee No free bays
Frame Court car park & Frame Court	259	$1.60 8am-8pm (8pm-8am) Unrestricted except 4 Frame Court bays	$8.50 day $7.50 night	$1.60/hour, 7am-12 midnight 3P, 7am-7pm, Mon-Fri No time restrictions after 7pm and Saturday and Sunday No maximum fee
Oxford Street south of Vincent Street	56 (7 m/c)	Free 8am-5:30pm Mon-Fri 8am-12noon Sat 1/4P or 1P + $1.60 for 10 angle bays @ 1P	No maximum where hourly charge applies	$2/hour, 7am-12 midnight. Scooter & m/c free. 1/4P or 1P, 7am-7pm Mon-Fri and 7am-12 noon Saturday No time restrictions after 7pm Saturday pm and Sunday No maximum fee
Newcastle St south side Oxford Street – Carr Place	12 (+ 3 m/c)	Free 8am-5:30pm Mon-Fri 8am-12noon Sat 1P	N/A	$2/hour, 7am-12 midnight Scooter & m/c free 1P, 7am-7pm Mon-Fri and 7am-12 noon Saturday No time restrictions after 7pm Saturday pm and Sunday No maximum fee
Newcastle Street	59	$1.60 8am-8pm Unrestricted	No maximum	$1.60/hour, 7am-12 midnight No time restrictions No maximum fee
Vincent Street	57	$2.20 8am-10pm** Unrestricted***	No maximum	$1.60/hour, 9am-6pm (9am-4:15pm on south side) No time restrictions

5.2.2 Leederville - Medium term (2013 to 2017)

The medium term focus should be on continuing to provide efficient and cost effective parking while starting to make explicit use of parking as a travel demand management tool. Recommended measures are:

1. Identify and implement improvements to the pedestrian network in Leederville to facilitate and encourage walking, and continue to improve the accessibility of the parking areas. Educate all users on the access options within the 400m, 5 minute walk.

2. Signage should promote walking times to nearby destinations such as the cinema, Leederville Oval, the TAFE and train station.

3. Continue to implement a parking hierarchy for Leederville.

* Applies over 7 days (Monday-Sunday) unless otherwise stated
** Clearway operates 7:30-9am both sides and 4:15-6pm south side, Monday-Friday
*** 2-hour limit according to parking information sign on Newcastle Street, but no limit stated on parking signs or machines on Vincent Street

4. Manage all public parking within a 5-minute walk (400m) of the centre of Leederville as paid short stay parking. This includes Oxford Street as far as Richmond Street and Carr Place.

5. Review installation of pay parking in Richmond Street between Oxford and Loftus Streets.

6. The popularity of Oxford Street as a destination for cyclists should be encouraged by the provision of consolidated bicycle parking stands in the Frame Court car park.

5.2.3 Leederville - Long term (2018+)

Towards and beyond 2020 the focus should be on strengthening a culture based on high use of public transport, walking and cycling, particularly for the trip to work but increasingly for other trip purposes. Parking should be used as a key travel demand management tool. Recommended measures are:

1. Repeat the surveys to identify and take action on any changes to the parking situation in Leederville.

2. On the streets in the Leederville centre core area where the emphasis will increasingly be on pedestrian movement, and public transport, it will be necessary to carefully manage parking to prioritise activities supporting economic activity while providing additional space for pedestrian amenity and, potentially, for public transport.

3. Implement pay parking at the equivalent of 50c per hour in $2009 to the unrestricted angle parking on Richmond Street (89 spaces). This will help make better use of the available spaces and encourage employees and students to use alternative forms of transport. At the same time review the need to apply fees to the restricted parking on the other side of the street and at the Loftus Street car park.

4. Commission an initial design and feasibility study for a deck car park with the prime purpose of providing additional short stay public parking. The first step should be to produce demand projections, determine the appropriate parking fees and estimate the income that would be generated by the development. Sketch drawings and elevations that comply with local planning regulations for the precinct can then be produced and a revised construction cost estimate prepared to enable preparation of a business case. The study should also detail the proposed pedestrian links to the new car park(s). Once the study is complete, the results can be made available to the community for comment and to encourage interest from the private sector.

5.3 Implications for the Leederville Masterplan

This section discusses the potential implications of the above recommendations for the Leederville Masterplan.

The Leederville Masterplan includes the following:

- Construction of a 360 bay multi-storey car park on The Avenue site plus construction of a 375 bay multi-level car park on the Frame Court car park site. Together these would increase the overall parking supply by only 235 bays (at a $2009 cost of approximately $21m).
- A review of the on-street parking capacity of Oxford Street
- All new developments will be required to provide sufficient on-site car parking on their own land
- The Town will retain ownership, control and management of all public parking and car parks in Leederville
- Significant redevelopment of Watercorp and associated land holdings.

This Leederville Precinct Parking Management Plan does not include/endorse a specific recommendation to construct deck parking on either site. Instead it recommends making more effective and efficient use of the existing car parking; using parking as a travel demand management tool to encourage shared parking and to increase mode share; and delaying an investigation into the provision of deck parking to the medium term (2013-2017). In addition it recommends that the prime purpose of such a facility be short stay parking.

It is recommended that paid parking be introduced in Oxford Street in two stages. Paid parking is recommended between Vincent Street and Leederville Parade over the short term, and between Vincent Street and Richmond Street over the medium term. This recommendation is consistent with the Manager Ranger and Community Safety Services recommendation in a report dated 10 November 2008 that paid parking be introduced on Oxford Street between Leederville Parade and Richmond Street.

This Precinct Parking Management Plan does not support a requirement that all new developments provide sufficient on-site parking on their own land. Instead it recommends that the Town encourage shared parking and enable a reduction in parking based on the use of alternatives to the single occupant car supported, where appropriate, by travel plan production and implementation. Appropriate amendments to the cash-in-lieu policy are also identified. In the long term replacement of minimum parking standards by maximum standards may be appropriate.

Town of Vincent ownership of parking facilities is not essential to enable the Town to control and manage parking. The Town should continue to own the land. Provided contractual arrangements ensure that the pricing and management of the parking is consistent with and supports the Town's car parking strategy, public ownership of the facility is not a pre-requisite.

5.4 Parking inventories, supply and use of parking

Table 3: Off-Street Public Car Parks – Leederville November 2008

Car Park	No. Bays	Time Restrictions & Limits	Fee($)	Peak Occupancy (%) and Duration (% and hours)
The Avenue Car Park	279	2 @ 1/4P 21 @ 1P ticket 160 @ 2P ticket 8am-8pm-8am Monday-Sunday 90 ticket all times 6 disabled/ACROD	1.60/hour max 8.50/day max 7.50/night Some free	• >90% 12-2pm Wed & Fri • 89% 7-9pm Friday • 84% vehicles parked 3 hours or less
Frame Court Car Park	232	222 ticket unrestricted 8am-8pm-8am Monday-Sunday 6 ACROD 1 motorcycle 3 taxi	1.60/hour max 8.50/day max 7.50/night	• 97% 12-2pm Wednesday • 95% 9-11am Friday • 55% & 57% 7-9pm Wed & Friday respectively • Up to 23% parked 5-7hrs
Loftus Centre Car Park	342	304 unrestricted 28 @ 1 ½ P 3 @ P10 7 motorcycles	Free	• 56% 7-9pm Wednesday • 45% 12-2pm Friday • 84% parked for 3 hours or less both days.
Total	**853**			

Table 4: On-Street Car Parking – Leederville November 2008

Street	No. Bays	Time Restrictions & Limits	Fee($)	Peak Occupancy (%) and Duration (% and hours)
Oxford Street (Leederville Parade–Vincent St)	56	46 @ 1/4P or1P, no fee 8am-5:30pm Mon-Fri and 8am-12noon Saturday 10@1P paid parking all day and night Mon-Sun	Free or 1.60/hour	• 84% 12-2pm Friday • 73% 7-9pm Friday evening • 97% vehicles parked 3 hours or less
Oxford Street (Vincent-Richmond)	31	26 @ 1P 1 @ 1/2P 3 @ 1/4P 1 @ 10mins	Free	• 68% & 65% 7-9pmWed & Friday respectively • 61% 12-2pm Friday • 94% vehicles parked 3 hours or less
Frame Court	27	22 ticket unrestricted 8am-8pm 4 @ 1P 1 ACROD	1.60	• Did not exceed 20% • All vehicles parked 3 hours or less on Wed and 54% on Friday
Newcastle Street	71	55 ticket unrestricted 8am-8pm Mon-Sun 9 @ 1P 2 @ 1/4P 2 @ 5mins 3 construction work	1.60	• 55% & 68% 12-2pm Wed & Fri respectively • 40% 7-9pm both days • Over 80% vehicles parked 3 hours or less on both days

Street	No. Bays	Time Restrictions & Limits	Fee($)	Peak Occupancy (%) and Duration (% and hours)
Vincent Street	57	All ticket parking 8am–10pm Mon-Sun	2.20	• Below 20% both days except 25% 3-5pm Fri • 74% & 96% parked 3 hours or less Wed & Fri respectively
Carr Place	74	All 2P or less	Free	• >80% 9am-5pm Wed reducing to 20% after 7pm • 68% vehicles parked 3 hours or less
Richmond Street	133	89 unrestricted 35 @ 1P 2 @ 1/4P 2 @ 5min pick-up 3 motorcycle 2 ACROD	Free	• 78% &72% Wed & Fri mornings respectively • 68% & 63% parked 3 hours or less
Total	**449**			

5.5 Recommendations – Leederville

The following table summarises the recommended actions to maximise the available parking in Leederville both on-street and off-street.

Priority: H - High (by 2012)
M - Medium (2013-2017)
L - Low (2018+)

Action	Priority
Significantly improve wayfinding signage to The Avenue, Frame Court and Loftus Street public off-street car parks from all destinations	H
Convert the Frame Street car park from unrestricted to 3P parking	H
Apply a single hourly charge to all parking at The Avenue by removing the free parking spaces	H
Amend the pay parking regime, remove the reference to night parking and increase the maximum charge in the off-street car parks to approximately 5.5 times the hourly rate	H
Convert all parking on Oxford Street between Leederville Parade and Richmond Street to pay parking	H
Implement the parking fees proposed in Table 2	H
Adopt and implement a parking hierarchy in Leederville as set out in Section 4.7 of the Draft Car Parking Strategy	H
Upgrade The Avenue car park as an example of best practice	H
Apply CPTED principles to the Frame Court car park	H
Negotiate with owners of the Leederville Village Shopping Centre for the Town to take over the management of the area as a single car park	H
Encourage practical shared parking initiatives for property developments in Leederville	H
Carr Place is identified as a parking benefit district and parking permits sold at a fair market price for parking between 0730 and 1730 Monday to Friday, to the commercial businesses	H
Communicate the benefits of the above actions for all stakeholders in Leederville	H
Investigate introducing a fixed fee of $3 to use the Leederville Oval parking area after 6pm on Wednesday, Friday, Saturday and other special event days	H
Identify and implement improvements to the pedestrian network in Leederville and educate all users on the access options within the 400m, 5 minute walk	M
Signage should promote walking times to nearby destinations such as the cinema, Leederville Oval, the TAFE and train station	M
Continue to implement a parking hierarchy for Leederville	M
Manage all public parking within a 5 minute walk (400m) of the centre of Leederville as paid short stay parking	M
Review installation of pay parking in Richmond Street	M
Provide consolidated bicycle parking stands in the Frame Court car park	M
Repeat the surveys to identify and take action on any changes to the parking situation in Leederville	L
Manage parking to prioritise activities supporting economic activity while providing additional space for pedestrian amenity	L
Implement pay parking at the equivalent of 50c per hour in $2009 to the unrestricted angle parking on Richmond Street	L
Commission an initial design and feasibility study for a deck car park	L

6 Mount Hawthorn Precinct

Mount Hawthorn is defined as the area bounded by Anzac Road, The Boulevard, Matlock Street, Woodstock Street, Fairfield Street, Scarborough Beach Road and Oxford Street. The area includes the Flinders Street off-street car park, the Coogee Street off-street car park and the Oxford Street off-street car park.

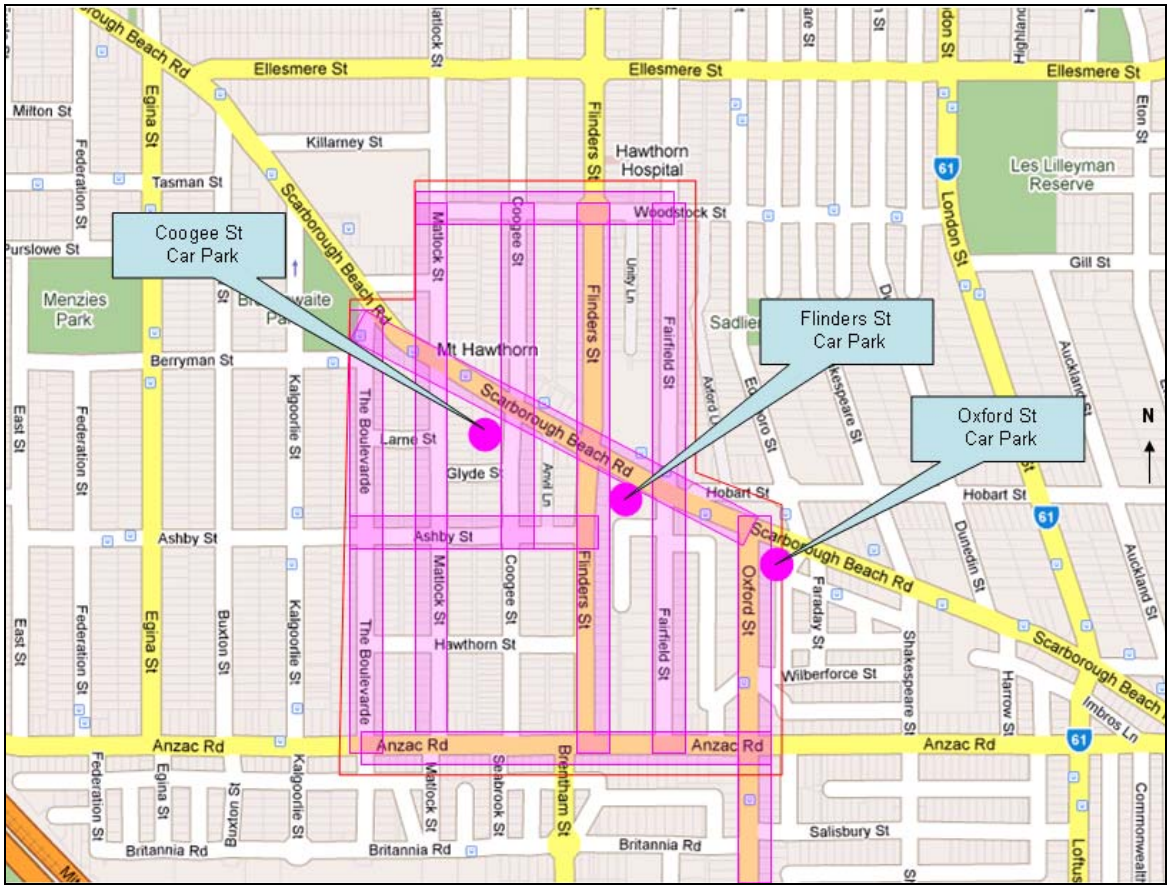

Figure 5: Mount Hawthorn precinct boundary (demarcated by red line)

Mount Hawthorn is a busy employment, retail and entertainment precinct. The precinct has a principal function of meeting the retail, general commercial and community needs of workers and the residents in surrounding suburbs, with the shopping area forming its focus. It is primarily zoned District Centre under the Town's Town Planning Scheme No.1 with Residential R30 immediately surrounding it.

Within the Precinct, there are three areas of land zoned Special Use – Car Park, which are occupied by car parking facilities. Their continued use in encouraged by the Town with any future change in land use requiring a scheme amendment.

Within this Precinct, the provision of bicycle storage and end of trip facilities is encouraged, with adequate parking to be provided and screened from streets and residences. Commercial car parking is required to be provided at the rear of properties.

A potential location for additional cycle parking could be at the west end of the Axford Park off-street car park north of Scarborough Beach Road. The existing ACROD bay could be relocated nearby. The cycle parking would be good location for surveillance given its proximity to shops and the Paddington Ale House.

Figure 6: Potential location for cycle parking in the off-street car park adjacent to Axford Park

Mount Hawthorn is well-serviced by buses but does not have a well-developed bus interchange facility nor is it serviced by rail. The nearest train stations are located at Glendalough and Leederville which are both approximately 2 km from Mount Hawthorn.

6.1 Parking management issues & actions

6.1.1 The current situation

There are a total of approximately 1,153 parking bays in Mount Hawthorn consisting of 1,047 on-street spaces and 106 off-street spaces in two car parks (see Appendix A). Of the 1,153 parking spaces, 890 spaces (77%) are unrestricted. Of the 263 restricted spaces, 209 are time limited to 1 hour, five to 2 hours, and three to 3 hours.

The Parking Survey identified that overall there is currently an ample supply of parking in Mount Hawthorn. The peak time occupancy of the available parking bays was just over 40%. A total of 74% to 76% of parked vehicles stayed for less than 3 hours.

Scarborough Beach Road had the highest on-street peak time parking occupancy of 73%.

The Coogee Street and Flinders Street off-street car parks, however, both have occupancy rates exceeding 85% over most or all of the period from 9am to 5pm on the days surveyed (a Wednesday and Friday). Parking in both of these off-street car parks is unrestricted.

The car park located east of Oxford Street, just outside the study area is owned and operated by the Town. Pay parking is available at a fee of $1.60 per hour. It was noted to be underutilised at the time of the survey.

6.1.2 Findings

The introduction of pay parking on-street is to be considered when regular peak hour compliant demand is starting to exceed 85%. Currently in Scarborough Beach Road, this figure is only 73% at peak demand time. It is also important that an 85% occupancy is occurring with compliant parking. Adequate enforcement, therefore, will need to be ensured prior to any decision to implement pay parking. When applying this criteria, consideration should be given to adjacent streets where regular peak hour demand may exceed 85% as a result of the implementation of pay parking in areas where demand already exceeds 85%. This will require regular bi-annual surveys of parking demand in these areas prior to implementation of pay parking.

The results of the updated 2008 surveys show that generally overall there is underused parking in Mount Hawthorn. Therefore it is not considered necessary to introduce pay parking at this time. A parking hierarchy should be introduced to maximise the current supply of parking available and compliance is to be increased. This will include altering the hours of enforcement to include all periods of peak demand.

The demand at the Coogee Street and Flinders Street off-street car parks exceeds 85%. The Town should introduce time restrictions in these car parks, and provide adequate enforcement to ensure compliance, and that they are being used by the users they are intended for. The Town could introduce a two hour limit along with increased enforcement.

The Town should give longer term consideration to introducing paid parking on-street after careful monitoring of the changing car parking over time. Following paid parking for the high demand on-street parking, the Town should introduce paid parking in the off-street car parks.

6.2 Parking management recommendations

6.2.1 Mount Hawthorn - Short term (by 2012)

The focus over the next 3 years should be on making more efficient and effective use of the available parking. Recommended measures are to:

1. Upgrade the presentation of Coogee Street car park to set an example of best practice. This would include improved external and internal signage, pedestrian access, and introduce motorcycle parking bays. This could then be used as an example for the upgrading and subsequently shared use of the Flinders Street off-street car park.
2. Review the underutilised off-street car park located on the east side of Oxford Street. It is currently the only parking area in Mount Hawthorn which is pay parking. It is understood that this was originally to prevent all day parking generated from the taxi business on Oxford Street. As with the other off-street car parks, it is not well signed. The car park is seldom used after hours. It has reserved spaces which occupy the most desirable bays.

   It is recommended that pay parking is expanded across the entire site, enforcement is expanded and motorcycle parking bays. The fee should remain at $1.60 per hour from 7am – 12 midnight with a 3 hour time restriction.
3. Investigate the potential location for additional cycle parking at the west end of the Axford Park off-street car park north of Scarborough Beach Road.
4. Improve signage – both wayfinding and internal car park signs, marking and layout of the bays in order to maximise current parking spaces. Improved signage will assist navigation by drivers and increase the perception of available parking in the Town.
5. Fairfield Street is identified as a parking benefit district (refer Section 4.4.4) and parking permits sold at a fair market price for parking between 0730 and 1730 Monday to Friday, to the commercial businesses.
6. The Town should consider putting in place a programme to reduce the number of unrestricted on-street spaces in Mount Hawthorn over time to encourage the use of public transport. This will expand the number of short-stay parking spaces available to support the economy. The reduction, for example, could be say 20% or 180 spaces over 10 years i.e. convert 18 spaces a year to restricted parking. Overall, current peak occupancy in Mount Hawthorn is 40% - if supply is reduced by 20% and demand is increased by 20%, then peak occupancy increases to 60%, which is still low.

6.2.2 Mount Hawthorn - Medium term (by 2013-2017)

The medium term focus should be on continuing to provide efficient and cost effective parking while starting to make explicit use of parking as a travel demand management tool. Recommended measures are:

1. Identify and implement improvements to the pedestrian network in Mount Hawthorn to facilitate and encourage walking, and continue to improve the accessibility of the parking areas. Promote walking times within a 400m radius of the Flinders Street and Scarborough Beach Road intersection.
2. Continue to implement a parking hierarchy for Mount Hawthorn as set out in Section 4.7 of the Draft Car Parking Strategy. This hierarchy acknowledges that in certain streets a distinction of priorities needs to be made between user categories.
3. Negotiate with landlords to unify the management of off-street parking and seek support and formal agreement for the Mezz private car park to be shared use with parking available for use outside the Mezz centre hours. This would ease pressure on the Flinders Street off-street car park and residents parking on Fairfield Street during the evenings and Sundays. It is noted that most of the parking infringement notices on Fairfield Street are for non recidivist drivers.

6.2.3 Mount Hawthorn - Long term (2018+)

Towards and beyond 2020 the focus should be on strengthening a culture based on high use of public transport, walking and cycling, particularly for the trip to work but increasingly for other trip purposes. Parking should be used as a key travel demand management tool. Recommended measures are:

1. Repeat the surveys to identify and take action on any changes to the parking situation in Mount Hawthorn.
2. On the streets in the Mount Hawthorn centre core area where the emphasis will increasingly be on pedestrian movement, and public transport, it will be necessary to carefully manage parking to prioritise activities supporting economic activity while providing additional space for pedestrian amenity and, potentially, for public transport. Priority for the use of the limited spaces available should be given to drop-off and deliveries through P5 - P15 restrictions and, where appropriate, bus stops and, possibly, taxis.
3. Commission an initial design and feasibility study for a deck car park. Currently this would be one of the Hobart Street car park, the Oxford Street car park or the Flinders Street car park with recognition of other adjacent open air sites. The study is an inexpensive way of considering sketch drawings and elevations that comply with local planning regulations for the precinct, as well as an obtaining an updated estimate of construction costs and proposed user types, parking fees and income that will be generated from the development to ensure optimal accessibility. The study should also detail the proposed pedestrian links to the new car park. Once the study is complete, the results can be made available to the community for comment and to encourage interest from the private sector.

6.3 Parking inventories, supply and use of parking

Table 5: Off-Street Public Car Parks – Mount Hawthorn November 2008

Car Park	No. of Bays	Time Limits/Restrictions	Fee($)	Peak Occupancy (%) and Duration (% and hours)
Coogee Street Car Park	44	42 Unrestricted 2 disabled/ACROD	Free	• >90% 12-2pm Wed & Fri • +55% vehicles parked 3 hours or less
Flinders Street Car Park	65	Unrestricted	Free	• >87% 12-2pm Wed & Fri • +57% vehicles parked 3 hours or less
Oxford Street Car Park			1.60/hour Free	• <10% 12-2pm Wed & Fri • <15% vehicles parked 3 hours or less
TOTAL	**109**			

Table 6: On-Street Car Parking – Mount Hawthorn November 2008

Street	No. Bays	Time Restrictions & Limits	Fee($)	Peak Occupancy (%) and Duration (% and hours)
Anzac Street	80	73 unrestricted 5 @ 2P 2 @ 1/4P	Free	• 27% 12-2pm Fri • 12% 3pm-5pm Fri
The Boulevard	59 59	Unrestricted Unrestricted	Free	• 27% 12-2pm Fri • 12% 3pm-5pm Fri • 80% parked 3 hours or less
Matlock Street	128	117 unrestricted 2 @ 5min 3 @ 3P 6 @1P	Free	• 23% 12-2pm Wed & Fri • 70% & 78% parked 3 hours or less Wed & Fri respectively
Flinders Street	128	110 unrestricted 15 @ 1P 3 @ 1/4P	Free	• 35% 12-2pm Wed & Fri • 71% & 76% parked 3 hours or less Wed & Fri respectively
Fairfield Street	126	54 unrestricted 68 @ 1P 4 @ 1/2P	Free	• 42% 12-2pm Fri • 73% & 83% parked 3 hours or less Wed & Fri respectively
Coogee Street	151	135 unrestricted 14 @1P 2 @ 1/4P	Free	• 42% 12-2pm Fri • 75% & 82% parked 3 hours or less Wed & Fri respectively
Woodstock Street	28	Unrestricted	Free	• <11% Wed & Fri
Oxford Street	185	94 unrestricted 75 @1P 10@ 1/2P 5 @1/4P 1 @ 10 min	Free	• 53% 7pm Fri • 83% & 87% parked 3 hours or less Wed & Fri respectively
Total	**746**			

6.4 Recommendations – Mount Hawthorn

The following table summarises the recommended actions to maximise the available parking in Mount Hawthorn both on-street and off-street.

Priority: H - High (by 2012)
M - Medium (2013-2017)
L - Low (2018+)

Action	Priority
Upgrade the presentation of the Coogee Street car park to set an example of best practice	H
Review the underutilised off-street car park located on the east side of Oxford Street	H
Improve signage – both wayfinding and internal car park signs	H
Encourage bicycles and provide further bicycle and motorcycle facilities	H
Fairfield Street is identified as a parking benefit district and parking permits sold at a fair market price for parking between 0730 and 1730 Monday to Friday, to the commercial businesses	H
Reduce the number of unrestricted on-street spaces in Mount Hawthorn	H
Identify and implement improvements to the pedestrian network in Mount Hawthorn to facilitate and encourage walking and promote walking times within a 400m radius of the flinders Street and Scarborough Beach Road	M
Continue to implement a parking hierarchy for Mount Hawthorn as set out in Section 4.7 of the Draft Car Parking Strategy	M
Negotiate with landlords to unify the management of off-street parking and seek support and formal agreement for the Mezz private car park to be shared use with parking available for use outside the Mezz centre hours	M
Repeat the surveys to identify and take action on any changes to the parking situation in Mount Hawthorn	L
Manage parking to prioritise activities supporting economic activity while providing additional space for pedestrian amenity	L
Commission an initial design and feasibility study for a deck car park	L

7 Mount Lawley/Highgate Precinct

Mount Lawley/Highgate is defined as the area bounded by Walcott Street, Lord Street, Newcastle Street, Beaufort Street, Bulwer Street, William Street, Vincent Street and Beaufort Street. This area includes the Barlee Street off-street car park, the Brisbane Street off-street car park and the Pier Street off-street car park, plus the Raglan Road off-street car park and the Chelmsford Road off-street car park.

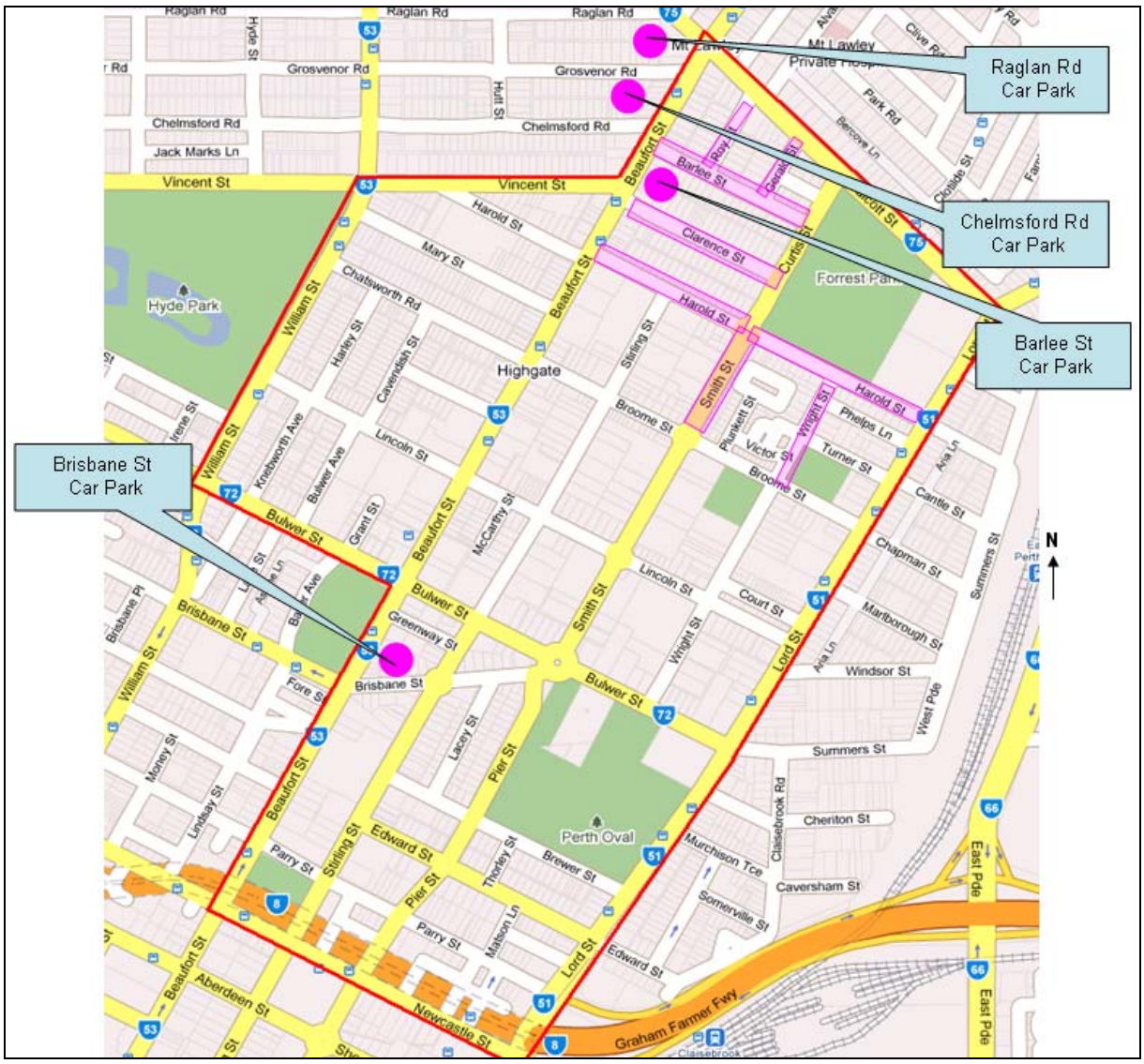

Figure 7: Mount Lawley/Highgate precinct boundary

The Mount Lawley/Highgate precinct as defined above is a larger consolidated precinct than the areas surveyed in the Parking Survey. These were Forrest Park (as highlighted in pink on the map above and Perth as illustrated in Figure 14). The area west of Beaufort Street and north of Chatsworth and Broome Streets was not surveyed.

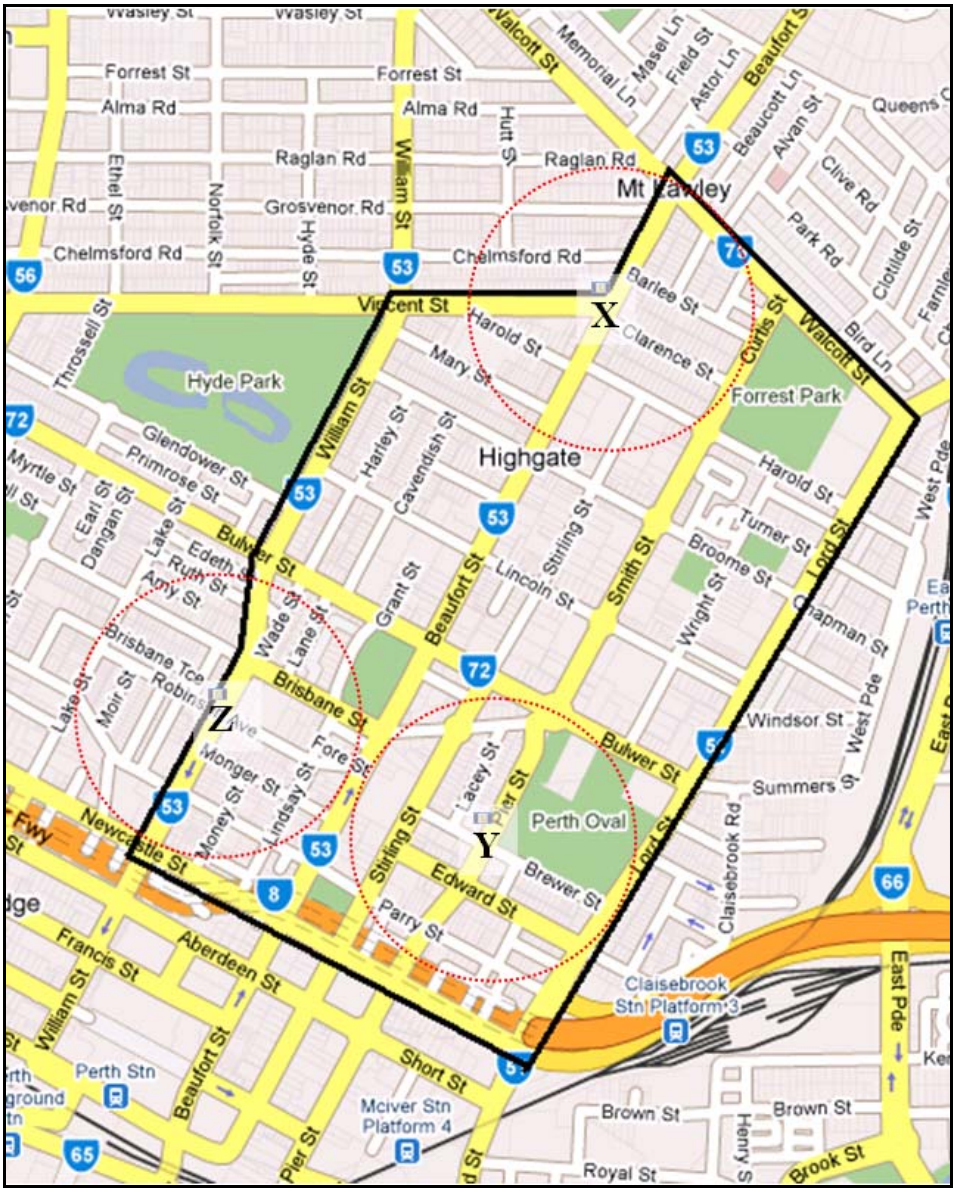

Figure 8: Illustrates a 5 minute walk to the intersections marked "X", "Y" and "Z"

7.1 Parking management issues & actions

7.1.1 The current situation

Mount Lawley/Highgate is a large mixed area bounded by Walcott Street, Lord Street, Newcastle Street, William Street, Vincent Street and Beaufort Street. Some of the off-street car parks are just outside the boundary sections of the area surveyed in November 2008. These were west of Forrest Park, and an area closer to the City of Perth, south of Bulwer Street. This precinct plan specifically considers these two areas as well as the Mount Lawley area to the west of Beaufort Street.

7.1.2 Forrest Park study area

The following is based on the results of the parking surveys for the Forrest Park area undertaken on Wednesday 12 and Friday 14 November and on Sunday 9 and Sunday 16 November 2008. The Wednesday and Friday surveys were held over the period 9am to 9pm, and the Sunday surveys over the period 11am to 4pm.

Sunday 9 was a soccer event day at Members Equity Stadium, and Sunday 16 was a "non-event" day, when no events were held. Holding surveys on both an event day and a non-event day allowed a comparison of events at the stadium on the parking environment in the Forrest Park precinct.

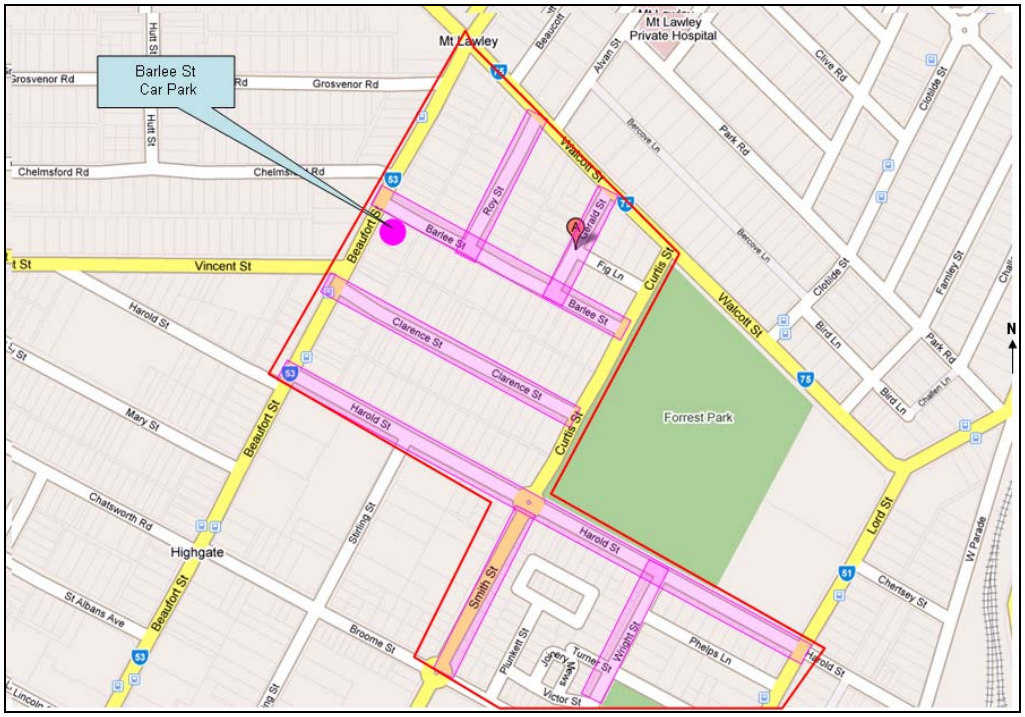

Figure 9: Forrest Park study area

The Barlee Street car park has 47 Bays (1 ACROD) and ticket parking at a cost of $1.60 per hour with a maximum of $8.50 per day. No time restriction applies.

All 42 bays on Roy Street are 1P. Barlee Street has 36 x 2P and 12 x 1P bays. Harold Street (Curtis to Lord) has 37 x 1P and 52 x 3P bays. All 26 bays on Clarence Street are 2P. Wright Street has 20 x 1P and 25 unrestricted bays. Smith Street has 14 x 2P and 14 unrestricted bays. Harold Street (Beaufort to Curtis) has 63 unrestricted bays, 3 x 2P and 6 x 30 minute bays. Clarence Street has 68 unrestricted and 10 x 3P bays.

The parking supply breakdown over the survey area is as follows:

15 minutes	2 bays
30 minutes	6 bays
1P	111 bays
2P	79 bays
3P	62 bays
Unrestricted (free)	170 bays
Unrestricted (pay)	47 bays
Total	483 bays

Weekdays

The surveys indicate that occupancies are generally low from 9am to 5pm during weekdays. The average occupancy is only 35% between 12noon and 2pm and between 3pm and 5pm. The highest occupancy recorded was 65% on Harold Street (Beaufort to Curtis) between 3pm and 5pm.

Occupancies are generally higher during the weekday evening period of 7-9pm, although the average remains low at 49%. The peak 7-9pm occupancies are on Harold Street (Beaufort to Curtis). These were 79% on Wednesday and a high 96% on Friday.

Over the whole area, 31% of vehicles were parked for over 3 hours during both Wednesday and Friday. The proportion of vehicles staying over 3 hours seems to bear little relation to the time restrictions in place. For example:

Roy Street (1P)	31% over 3 hours on Wednesday and 36% on Friday
Gerald Street (2P)	45% over 3 hours on Wednesday and 33% on Friday
Barlee Street (1P & 2P)	29% over 3 hours on Wednesday and 37% on Friday
Harold Street (1P & 3P)	20% over 3 hours on Wednesday and 17% on Friday
Clarence Street (68 unrestricted)	37% over 3 hours on Wednesday and 26% on Friday
Harold Street (63 unrestricted)	27% over 3 hours on Wednesday and 20 % on Friday

This suggests that enforcement is variable across the area and was generally ineffective at the time of the survey. Part of the reason for this may be the confusing combinations of restrictions between streets and along some streets which suggest ad hoc/reactive decision making rather than a cohesive policy.

The Barlee Street car park is significantly underused for an at-grade car park off a major road. There are usually more than 35 vacant bays available at this site. The maximum recorded weekday occupancy was just 26% between 3pm and 5pm on Friday, although this increased to 47% on Friday evening. Compliance was, however, good with very few vehicles staying over 3 hours.

Sundays

Generally, the parking demand is higher over the period 2-4pm than over the period 11am-1pm.

During the Sunday event day at Members Equity Stadium when a soccer final was being played, the overall occupancy from 2-4pm was 45% reducing to 41% on the non-event Sundays. These figures are higher than weekday daytime demands and similar to Wednesday or Friday evening demands (40% and 49% respectively).

It is significant that the surveys did not identify any particular issues on event days. As expected there were substantial increases on event days compared to non-event days. The occupancies of Barlee Street (40% to 60%), Harold Street (Beaufort to Curtis) (18% to 74%) and Smith Street (14% to 57%) all showed higher demand, but none of these figures indicate a need for immediate provision of additional supply.

There were also three locations where surveyed occupancies were significantly greater on non-event days. These were Barlee Street car park (36% compared with 19%), Clarence Street (85% compared with 47%) and Harold Street (Curtis to Lord) (60% compared with 11%).

Clarence Street had a high occupancy of 85% on the day of the survey. The large majority of parking spaces on Clarence Street are unrestricted. The proportion of vehicles staying for more than 3 hours was only 14% indicating that the parking spaces are largely occupied by visitors to the area.

The Parking Survey Report has the following to say on the variations in occupancies between the two Sunday surveys – "It should be noted that due to the relatively small number of parking spaces available on some of these streets, large fluctuations in parking occupancy may not be solely attributed to the event held at Members Equity Stadium. For example Clarence Street had almost 40% greater occupancy on the non-event Sunday. It should also be noted that on the most adversely affected street, there is still a vacancy of around 18 spaces."

Findings

1. The survey results indicate that there are no significant parking issues from 9am to 5pm during weekdays or on Sundays even when there is an event at the Members Equity Stadium. During these periods there is ample parking available and no single location has peak demands exceeding 85% of the available supply.

2. There is a high percentage of vehicles staying for over 3 hours on almost all streets surveyed irrespective of whether they have a time restriction on all or some of the parking spaces. Improved enforcement combined with a simpler and more consistent allocation of parking restrictions would result in much more effective use being made of the available short stay bays.

3. The 72 parking spaces on Harold Street between Beaufort Street and Curtis Street are in high demand on Wednesday and Friday evenings and the available spaces were almost fully occupied on the Friday evening of the survey. There are, however, many spaces available during these evenings at the Barlee Street car park and on Clarence Street and other streets in the area.

4. The low utilisation of the Barlee Street car park can be partly explained by the availability of free on-street parking in the vicinity. However, the relatively low 47% utilisation on the Friday evening indicates that there are other factors discouraging use of the car park. Observation of the area indicates that these are:

   a) Poor wayfinding signage to and at the car park

   b) Vehicle access is not convenient

   b) Perception of safety and security to be improved especially at night.

   Greater use of the car park could also be encouraged by marketing it to patrons of nearby businesses – new technology can permit implementation of a validation discount system.

5. The relatively high occupancy of the Clarence Street parking bays identified for the period 2-4pm on the non-event Sunday was accompanied by a very low utilisation of the parking on Harold Street between Beaufort Street and Curtis Street over the same period, although both streets have over 60 unrestricted spaces available. This suggests that the problem does not warrant immediate action, although the situation should be monitored.

7.1.3 Mount Lawley study area

It is noted that the area west of Beaufort Street as shown below, demarcated by a green line was not included in the Parking Survey.

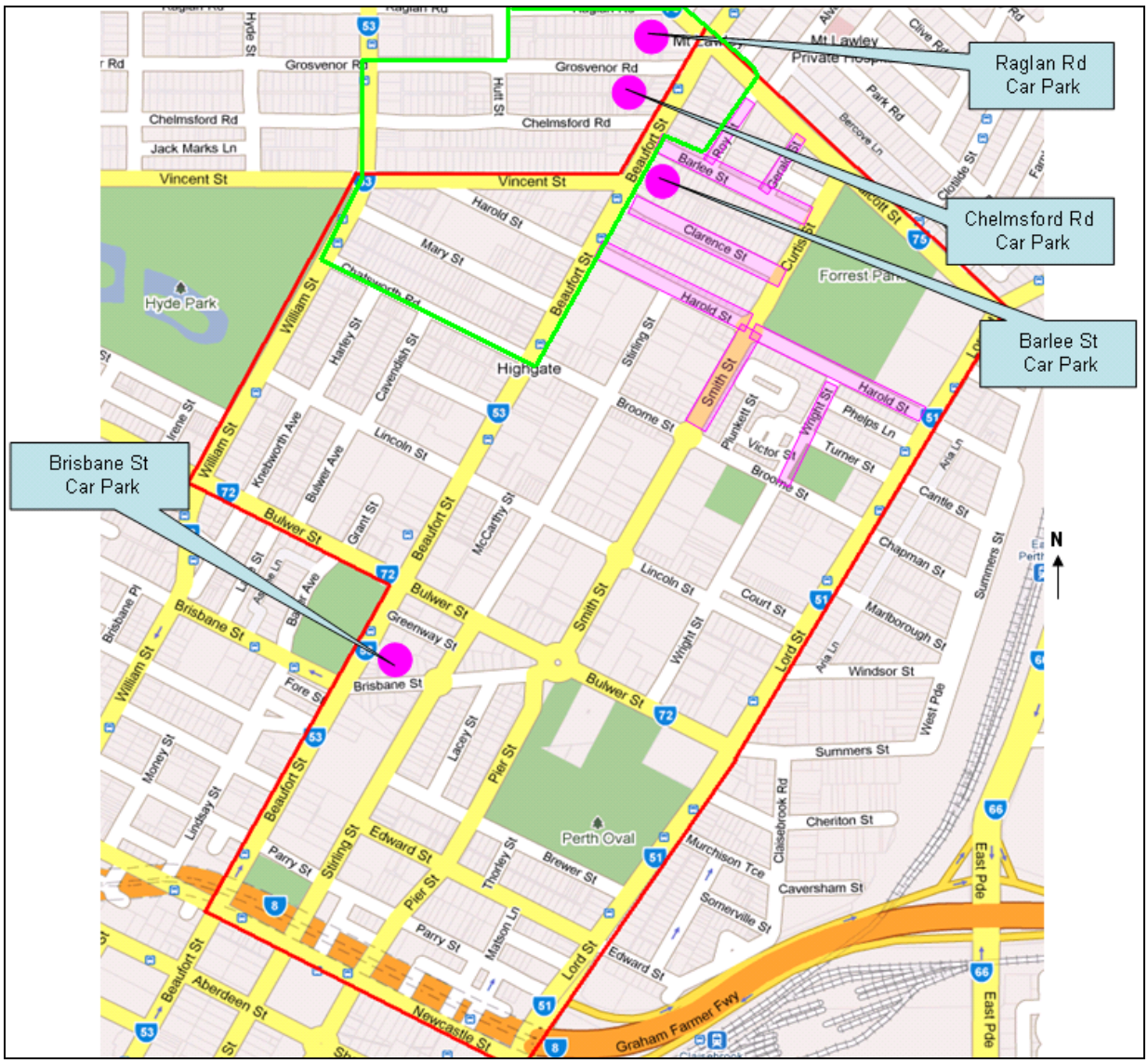

Figure 10: Mount Lawley study area

7.2 Parking management recommendations

The following short term, medium term and long term recommendations for Mount Lawley/Highgate were developed from the analysis and findings above in Section 7.1.

The recommendations below are made on the basis of more than 12 observations of the area at different times of the day and evening, on weekdays and weekends between February and June 2008. Additionally discussions occurred with several stakeholders in the area including residents and shop and restaurant owners. The Town have also provided copies of correspondence from other stakeholders.

7.2.1 Short term (by 2012)

The focus over the next 3 years should be on making more efficient and effective use of the available parking. Recommended measures are:

1. Significantly improve wayfinding signage to the Chelmsford Road, Raglan Road and Barlee Street off street public car parks from all destinations (Section 3.2 above). This is to include signage at each site providing detailed information about alternative parking available at the other car parks.

2. Convert all parking in the Chelmsford Road and Raglan Road car parks to pay parking. The current partially pay, partially free parking is confusing and serves no purpose. Drivers seek a vacant space, and many who park in designated free bays, actually purchase a ticket anyway.

3. Amend the pay parking regime to apply to the period 7am to 7pm and 7am to 12 midnight for those parking bays where a charge applies for parking after 7pm. Remove the reference to night parking. Increase the maximum charge in the off-street car parks to approximately 5.5 times the hourly rate.

4. Install pay parking on-street as marked in pink in Figure 11 below. The introduction of ticket issuing machines will improve compliance and increase the "churn" of parkers which in turn will ensure that there are adequate short-term parking facilities for patrons of local cafes, restaurants and other businesses.

    4.1 On both sides of Beaufort Street from Walcott Street to Chatsworth Road/ Broome Street.

    4.2 On Raglan, Grosvenor and Chelmsford Roads from Beaufort Street extending beyond the off street car parks.

    4.3 In Harold Street and Broome Street from Beaufort Street to Stirling Street.

    4.4 In Barlee Street and Clarence Street for 80m from Beaufort Street.

    4.5. East of William Street between Newcastle and Monger Streets is a high-use area, which is full of parked cars for most of the day. Anecdotally, a high proportion of the vehicles that park in this location, belong to staff from local businesses and their vehicles are moved from space to space every one or two hours to avoid the time restrictions. In many cases, because these vehicles move to a different section of the street, they do not contravene the provisions of the local law. It is recommended that these streets are converted to pay parking. This will compel business owners and their staff to find remote parking where they can park for long periods or to convert to other modes. The increased availability of short term parking will enhance the viability of the area for bona-fide visitors and customers.

    4.6 In Monger Street, Money Street, Little Parry Street and Lindsay Street.

    4.7 In Newcastle Street from Beaufort Street to Forbes Lane.

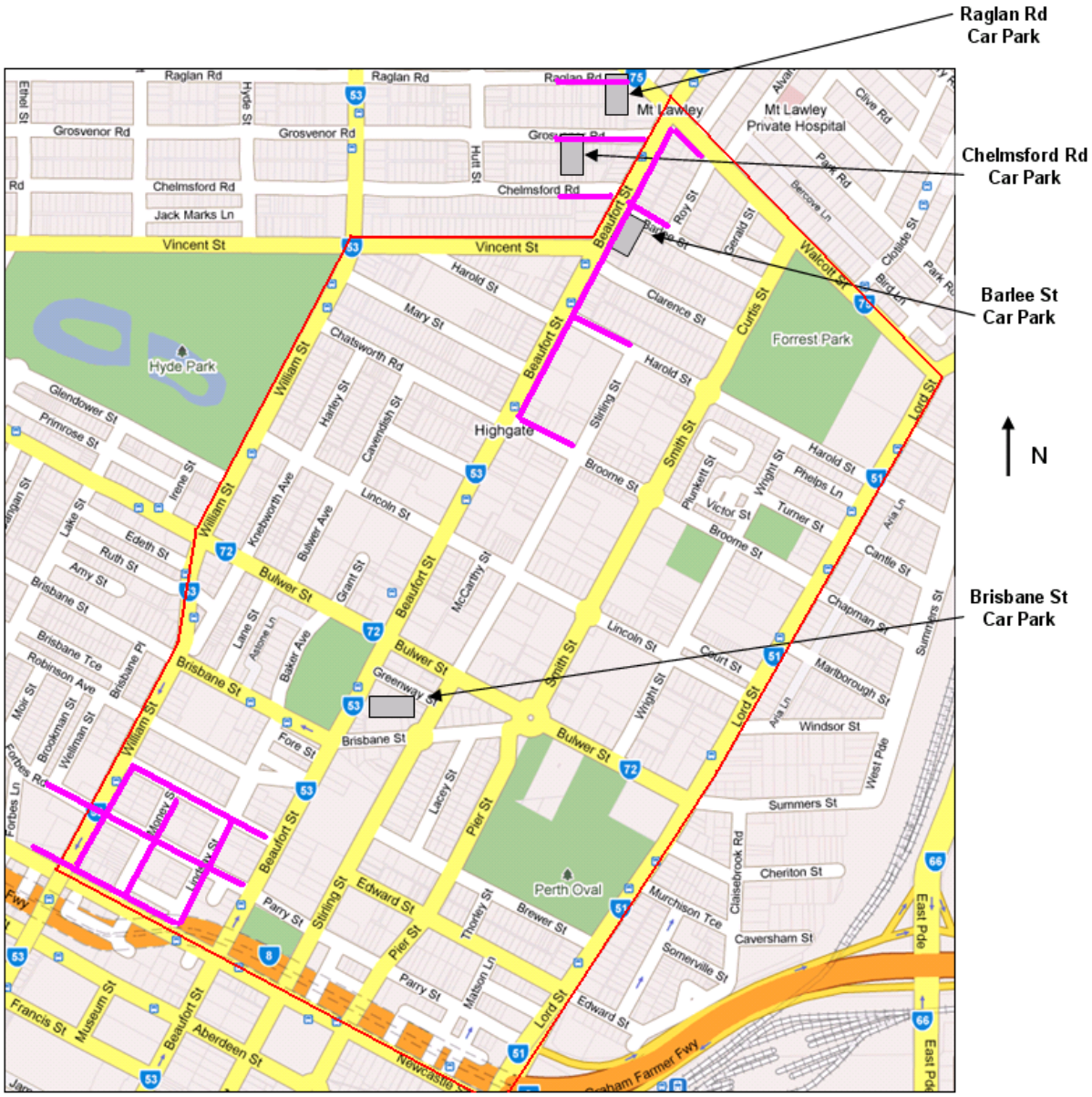

Figure 11: Recommended pay parking on-street – Mount Lawley/Highgate

5. There are 7 bays on the west side of Beaufort Street between Chelmsford Road and Walcott Street travelling towards Walcott Street. Drivers using these bays interfere with the considerable daily movement of traffic along the street. Additionally, the bays are subject to a clearway restriction from 3.15pm - 6pm Monday to Saturday, but this restriction is abused almost every day. It is recommended that to improve safety and traffic flow, these 7 bays are deleted, and replaced 50m to the east by reducing the wide verge on the south side of Walcott Street between Beaufort Street and Roy Street. There are many short term bays available in the 3 nearby off-street car parks.

   Payment for motorcycles and scooters is to be free, but subject to time restrictions.

6. Introduce parking restrictions such as 2P parking on residential streets when pressures from all-day commuter parking start to develop, such as in Broome Street near Beaufort Street.

7. Implement the parking fees proposed in Table 7 below. These include increasing off street car park fees to $1.80 per hour; amending the maximum fees; implementing a 60c for 15 minutes charge for the convenience of premium short term parking on Beaufort, William and Newcastle streets, a lower fee on adjacent streets and removing the reference to separate night fees.

8. Redesign access to the Barlee Street car park and create an entry only off Beaufort Street immediately after Barlee Street. This is to be highlighted with new illuminated signage clearly indicating the availability of spaces and the fee for parking. This entry will provide more convenient access to the car park. The current access off Beaufort Street at the southern end of the car park is to be retained. Although this change will require the relocation of the ACROD bay and the loss of 3 bays, it will provide more convenience to drivers and encourage greater use of the car park.

9. Adopt and implement a parking hierarchy in Mount Lawley/Highgate as set out in Section 4.7 of the Draft Car Parking Strategy. This hierarchy acknowledges that in certain streets a distinction of priorities needs to be made between user categories.

10. Upgrade the presentation of the Barlee Street, Chelmsford Road and Raglan Street car parks as an example of best practice. This includes improved signage, lighting, landscaping and the creation of free parking areas for scooters and motorcycles in various sections of the car parks which provide safe access for these vehicles and are unsuitable for cars. Improve bicycle parking facilities including the addition of one or two bicycle stands for short term visitor/customer bicycle parking.

11. Apply CPTED principles to Barlee Street, Chelmsford Road and Raglan Street car parks to improve perceived security and the overall pedestrian environment to encourage greater use in the evenings. Upgrade their pedestrian routes to Beaufort Street.

12. Harold Street between Stirling and Beaufort Streets could be identified as a parking benefit district (refer Section 4.4.4) and parking permits sold at a fair market price for parking between 0730 and 1730 Monday to Friday, to the commercial businesses.

13. Communicate the benefits of the above actions for all stakeholders in Mount Lawley/Highgate. In particular link the car park upgrades and increased ”churn” of vehicles with the additional income funded from increased pay parking.

Table 7: Proposed new parking fee structure – Mount Lawley/Highgate

Location	No. Bays	Current Fee Time period *[*] Restrictions	Maximum	Proposed Fee Structure *
Raglan Road car park	98 (14 fee paying)	Free or $1.60 p hr 8am-8pm	$8.50 day 8am-8pm $7.50 night	$1.80/hour 7am-12 midnight Retain1/4P, 1P 7am-7pm No time restrictions after 7pm No maximum fee No free bays
Chelmsford Road car park	56 (26 fee paying)	Free or $1.60 p hr 8am-8pm	$8.50 day 8am-8pm $7.50 night	$1.80/hour, 7am-12 midnight No maximum fee No free bays
Barlee Street car park	47	$1.60 p hr	$8.50 day 8am-8pm $7.50 night	$1.60/hour 7am-6pm[**] No maximum fee $5 Flat fee after 6pm
Brisbane Street car park	228	$1.60 p hr	$8.50 day 8am-8pm $7.50 night	$1.80/hour 7am-12 midnight No maximum fee
Beaufort Street (from Broome St to Walcott St)		1/4P 1P and 2P		60c for 15 mins, 7am-12 midnight 1/4P or 1P 7am-7pm Scooters and m/cycles free No time restrictions after 7pm No maximum fee
William Street and Newcastle Street		1/4P 1P and 2P		60c for 15 mins, 7am-12 midnight 1/4P or 1P 7am-7pm Scooters and m/cycles free No time restrictions after 7pm No maximum fee
Streets adjacent to Beaufort St: Clarence St – 90° bays Walcott St to Roy St Raglan St – 80m Grosvenor Rd – 80m Chelmsford Rd – 40m Broome St – 80m Harold St to Stirling St Broome St to Stirling St		1P and 2P		50c for 15 mins, 7am-12 midnight Retain 1P or 2P 7am-7pm Scooters and m/cycles free No time restrictions after 7pm No maximum fee
Streets adjacent to William/Newcastle St: Forbes Rd Money St Monger St Lindsay St		1P and 2P		50c for 15 mins, 7am-12 midnight Retain 1P or 2P 7am-7pm Scooters and m/cycles free No time restrictions after 7pm No maximum fee

[*] Applies over 7 days (Monday-Sunday) unless otherwise stated.
[**] Barlee Street fee structure is designed to increase patronage of the car park. After average occupancy is regularly achieving >75%, the fees should be increased to match other car parks.

7.2.2 Medium term (2013 to 2017)

The medium term focus should be on continuing to provide efficient and cost effective parking while starting to make explicit use of parking as a travel demand management tool. Recommended measures are:

1. Use the 2013 survey results supplemented by additional surveys as required to identify locations where parking charges should be introduced or increased (e.g. Bulwer, Wade and Lane Streets).

2. Continue to implement a parking hierarchy for Mount Lawley/Highgate.

3. Negotiate with owners of the establishment known as Planet Video on the corner of Beaufort and Walcott Streets, and adjacent car parks for the Town to take over the management of the area as a single car park to improve utilisation and to upgrade the overall presentation.

4. Review installation of additional pay parking in streets abutting onto Beaufort and William Streets south of Bulwer Street.

5. One or two bicycle stands for short term visitor/customer bicycle parking should be provided on average every 50m on streets in the retail core of Mount Lawley/Highgate.

7.2.3 Long term (2018+)

Towards and beyond 2020 the focus should be on strengthening a culture based on high use of public transport, walking and cycling, particularly for the trip to work but increasingly for other trip purposes. Parking should be used as a key travel demand management tool. Recommended measures are:

1. Repeat the surveys to identify and take action on any changes to the parking situation in Mount Lawley/Highgate.

2. On the streets in the Mount Lawley/Highgate centre core area where the emphasis will increasingly be on pedestrian movement, and public transport, it will be necessary to carefully manage parking to prioritise activities supporting economic activity while providing additional space for pedestrian amenity and, potentially, for public transport.

3. Commission an initial design and feasibility study for a deck car park with the prime purpose of providing additional short stay public parking. The first step should be to produce demand projections, determine the appropriate parking fees and estimate the income that would be generated by the development. Sketch drawings and elevations that comply with local planning regulations for the precinct can then be produced and a revised construction cost estimate prepared to enable preparation of a business case. The study should also detail the proposed pedestrian links to the new car park(s). The sites for consideration should be one of the two sites owned by the Town, i.e. the Chelmsford Road or Raglan Street sites. Once the study is complete, the results can be made available to the community for comment and to encourage interest from the private sector.

7.3 Parking inventories, supply and use of parking

Table 8: Off-Street Public Car Parks – November 2008

Car Park	No. Bays	Time Restrictions & Limits	Fee($)	Peak Occupancy (%) and Duration (% and hours)
Barlee St	47	Ticket parking 3P max	$1.60 p/h $8.50 max/day 8am – 8pm $7.50/night	• 11% - 19% Wed & Fri • 47% Fri evening • 95% vehicles parked 3 hrs or less
Brisbane St	228	Ticket parking 3P max	$1.60 p/h $8.50 max/day 8am – 8pm $7.50/night	• 21% - 30% Wed & Fri • 90% vehicles parked 3 hrs or less
Raglan St	98	1/4P 1P 2P Ticket parking at only 14 bays	$1.60 p/h $8.50 max/day 8am – 8pm $7.50/night	Not surveyed
Chelmsford Rd	56	1P 2P Ticket parking at only 26 bays	$1.60 p/h $8.50 max/day 8am – 8pm $7.50/night	Not surveyed
Total	**429**			

7.4 Recommendations – Mount Lawley/Highgate

The following table summarises the recommended actions to maximise the available parking in Mount Lawley/Highgate both on-street and off-street.

Priority: H - High (by 2012)
M - Medium (2013-2017)
L - Low (2018+)

Action	Priority
Significantly improve wayfinding signage to the Chelmsford Road, Raglan Road and Barlee Street off street public car parks from all destinations	H
Convert all parking in the Chelmsford Road and Raglan Road car parks to pay parking	H
Amend the pay parking regime, remove the reference to night parking and increase the maximum charge in the off-street car parks to approximately 5.5 times the hourly rate	H
Install pay parking on-street as marked in pink in Figure 11 above	H
Replace the 7 bays on the west side of Beaufort Street between Chelmsford Road and Walcott Street 50m to the east	H
Introduce parking restrictions such as 2P parking on residential streets when pressures from all-day commuter parking start to develop, such as in Broome Street near Beaufort Street	H
Implement the parking fees proposed in Table 7	H
Redesign access to the Barlee Street car park and create an entry only off Beaufort Street immediately after Barlee Street	H
Adopt and implement a parking hierarchy in Mount Lawley/Highgate as set out in Section 4.7 of the Draft Car Parking Strategy	H
Upgrade the presentation of the Barlee Street, Chelmsford Road and Raglan Street car parks as an example of best practice	H
Apply CPTED principles to Barlee Street, Chelmsford Road and Raglan Street car parks to improve perceived security and the overall pedestrian environment. Upgrade their pedestrian routes to Beaufort Street	H
Harold Street between Stirling and Beaufort Streets could be identified as a parking benefit district and parking permits sold at a fair market price for parking between 0730 and 1730 Monday to Friday, to the commercial businesses	H
Communicate the benefits of the above actions for all stakeholders in Mount Lawley/ Highgate	H
Use the 2013 survey results to identify locations where parking charges should be introduced or increased (e.g. Bulwer, Wade and Lane Streets)	M
Continue to implement a parking hierarchy for Mount Lawley/Highgate	M
Negotiate with owners of the Planet Video, corner of Beaufort and Walcott Streets, and adjacent car parks for the Town to take over the management of the area as a single car park	M
Review installation of additional pay parking in streets abutting onto Beaufort and William Streets	M
Provide bicycle stands for short term visitors/customers on average every 50m on streets in the retail core of Mount Lawley/Highgate	M
Repeat the surveys to identify and take action on any changes to the parking situation in Mount Lawley/Highgate	L
Manage parking to prioritise activities supporting economic activity while providing additional space for pedestrian amenity	L
Commission an initial design and feasibility study for a deck car park	L

8 North Perth Precinct

North Perth is defined as the area bounded by Menzies Street, Fitzgerald Street, Alma Road, Leake Street, View Street and Woodville Street. It includes the Wasley Street car park on the east side of Fitzgerald Street.

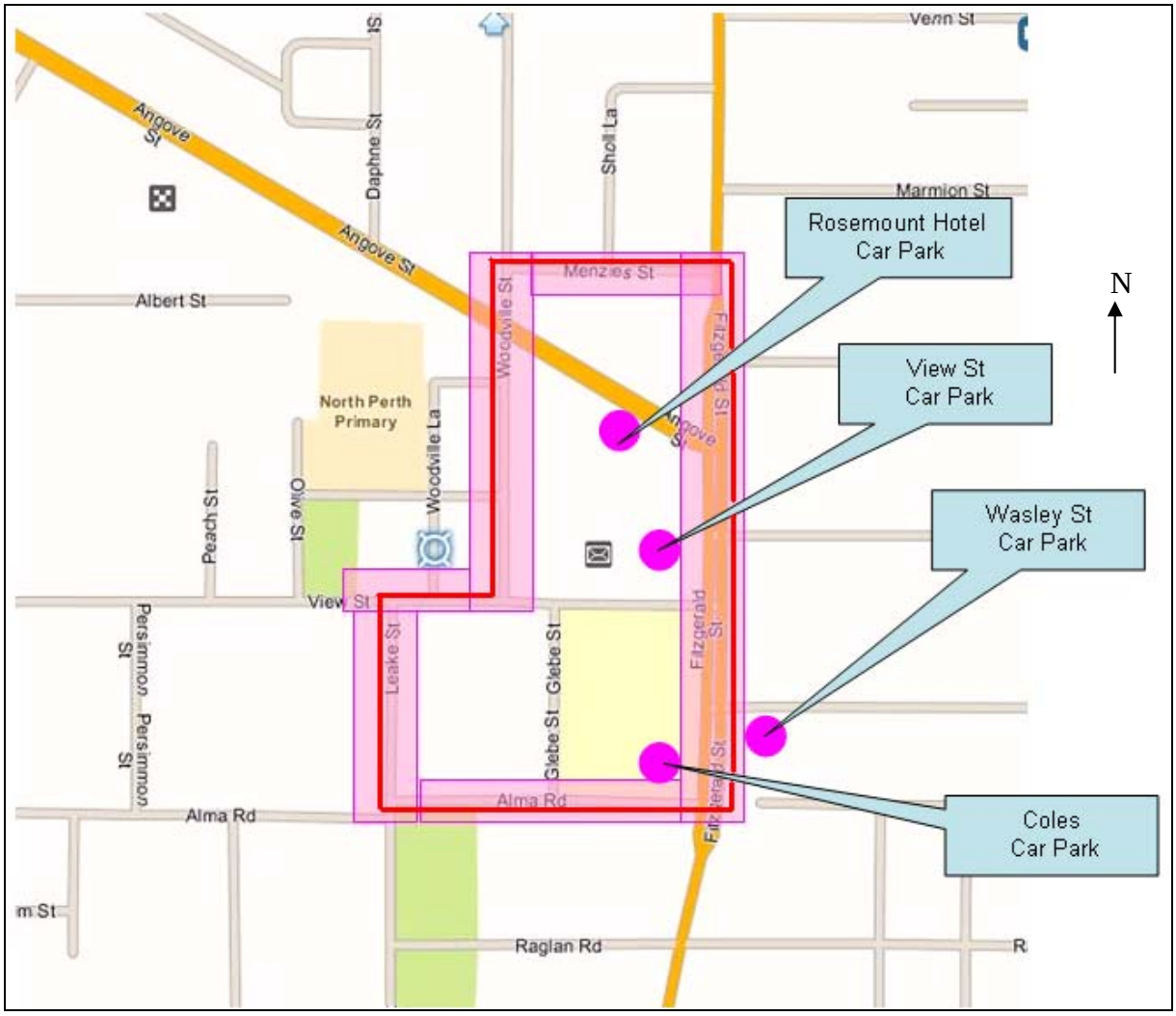

Figure 12: North Perth precinct boundary (demarcated by red line)

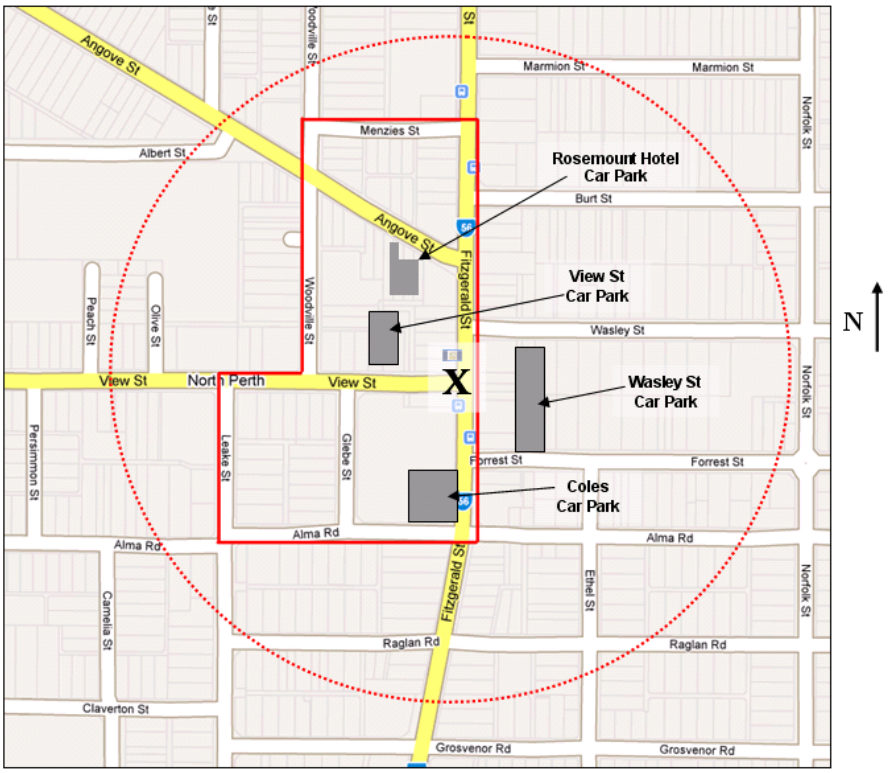

Figure 13: Illustrates a 5 minute walk to the intersection marked "X",

8.1 Parking management issues & actions

8.1.1 The current situation

Parking supply in the area is sufficient for the current demand. Peak time occupancy in most streets and the View Street car park does not generally exceed 55%. Although some streets such as Woodville and Fitzgerald appear to be more popular, there is generally always available parking within a 350m (<5 minute) walk of Fitzgerald Street. These more remote areas are available to employees working in the North Perth Precinct. In addition it was observed that the Coles car park had a high degree of turnover of vehicles, providing regular vacancies. The high demand on Fitzgerald Street between View and Alma Streets is generated by the convenience of these bays outside shops and commercial premises. Fitzgerald Street has a high 'churn' rate as none of these cars stay for more than 3 hours.

8.2 Parking management recommendations

The following short term, medium term and long term recommendations for North Perth were developed from the analysis and findings above. Before outlining these, this section first identifies actions that apply to all high activity centres under investigation. It then discusses the implementation of paid parking.

8.2.1 Pay parking

The introduction of pay parking on-street should be considered when regular peak hour demand is starting to exceed 85%. This is currently not the case in North Perth. Demand is only high in Woodville Street which has no time restrictions and Fitzgerald Street which has high turnover 1P parking.

8.2.2 North Perth - Short term (by 2012)

The focus over the next 3 years should be on making more efficient and effective use of all the available parking in North Perth. Recommended measures are:

1. Improve wayfinding signage to the View and Wasley Street off-street public car parks from all destinations (Section 3.2 above). This is to include signage at each site providing detailed information about alternative parking available at the other car parks.
2. Amend the parking regime to apply to the period 7am to 7pm and 7am to 12 midnight for night parking.
3. Introduce parking restrictions such as 2P parking on residential streets when pressures from all-day commuter parking start to develop, such as in Leake, Forrest and View Streets.
4. Merge the parking and vehicle traffic flow between the Rosemount Hotel car park and the View Street car park.
5. Negotiate with the landlords of the businesses on Fitzgerald Street (e.g. Bendigo Bank, Bells Pharmacy and the Coles car park) to permit their exclusive spaces to be available to the public after hours.
6. Implement motorcycle parking bays in the View Street and Wasley Street car parks, and provide additional bicycle parking facilities in Fitzgerald Street and in Alma Road east of Fitzgerald Street.
7. Adopt and implement a parking hierarchy in North Perth as set out in Section 4.7 of the Draft Parking Strategy. This hierarchy acknowledges that in certain streets a distinction of priorities needs to be made between user categories.
8. Upgrade the presentation of the View Street car park as an example of best practice. This includes improved signage, lighting, landscaping and the creation of free parking areas for scooters and motor-cycles in various sections of the car park which provide safe access for these vehicles and are unsuitable for cars. Improve bicycle parking facilities including the addition of one or two bicycle stands for short term visitor/customer bicycle parking.
9. Apply CPTED principles to the View Street car park to improve perceived security and the overall pedestrian environment to encourage greater use in the evenings. Upgrade the pedestrian routes.
10. View Street, Leake Street and Raglan Road could be identified as parking benefit districts (refer Section 4.4.4) and parking permits sold at a fair market price for parking between 0730 and 1730 Monday to Friday, to the commercial businesses.
11. Review the current restriction in streets more than 250m from the business area to assess whether restrictions can be reduced to accommodate employee parking.

8.2.3 North Perth - Medium term (2013 to 2017)

The medium term focus should be on continuing to provide efficient and cost effective parking while starting to make explicit use of parking as a travel demand management tool. Recommended measures are:

1. Undertake a parking survey in 2013 updating the 2008 survey to assess any changes and take appropriate action, and use the results supplemented by additional surveys as required to identify locations where parking charges should be introduced (e.g. Fitzgerald Street and the off-street car parks).
2. Identify and implement improvements to the pedestrian network in the North Perth to facilitate and encourage walking, and continue to improve the accessibility of the parking areas. Educate all users on the access options within a 5 minute walk.

3. Continue to implement a parking hierarchy for North Perth.

4. One or two bicycle stands for short term visitor/customer bicycle parking should be provided on average every 50 m on streets in the retail core of North Perth

5. Negotiate with landlords of the Rosemount Hotel and Coles car parks for the Town to take over the management of each area as a single car park to improve utilisation and to upgrade the overall presentation.

6. Review installation of pay parking in streets abutting onto Fitzgerald Street between Menzies Street and Alma Road.

8.2.4 North Perth - Long term (2018+)

Towards and beyond 2020 the focus should be on strengthening a culture based on high use of public transport, walking and cycling, particularly for the trip to work but increasingly for other trip purposes. Parking should be used as a key travel demand management tool. Recommended measures are:

1. Repeat the surveys to identify and take action on any changes to the parking situation in North Perth.

2. On the streets in the North Perth centre core area where the emphasis will increasingly be on pedestrian movement, and public transport, it will be necessary to carefully manage parking to prioritise activities supporting economic activity while providing additional space for pedestrian amenity and, potentially, for public transport.

3. Commission an initial design and feasibility study for a deck car park with the prime purpose of providing additional short stay public parking. The first step should be to produce demand projections, determine the appropriate parking fees and estimate the income that would be generated by the development. Sketch drawings and elevations that comply with local planning regulations for the precinct can then be produced and a revised construction cost estimate prepared to enable preparation of a business case. The study should also detail the proposed pedestrian links to the new car park(s). The site for consideration should be one of the sites owned by the Town, i.e. Wasley Street or Wise Street. Once the study is complete, the results can be made available to the community for comment and to encourage interest from the private sector.

8.3 Parking inventories, supply and use of parking

Table 9: Off-Street Public Car Parks – November 2008

Car Park	No. Bays	Time Restrictions & Limits	Fee($)	Peak Occupancy (%) and Duration (% and hours)
View St	40	3P max 1 ACROD	NIL	• 50% Wed • 47% Fri evening • 93% vehicles parked 3 hrs or less
Wasley St	48	3P max 1 ACROD	NIL	• 71% Wed • 81% vehicles parked 3 hrs or less
Total	**88**			

8.4 Recommendations – North Perth

The following table summarises the recommended actions to maximise the available parking in North Perth both on-street and off-street.

Priority: H - High (by 2012)
M - Medium (2013-2017)
L - Low (2018+)

Action	Priority
Improve wayfinding signage to the View and Wasley Street off-street public car parks from all destinations	H
Amend the pay parking regime	H
Merge the parking and vehicle traffic flow between the Rosemount Hotel car park and the View Street car park	H
Introduce parking restrictions such as 2P parking on residential streets when pressures from all-day commuter parking start to develop, such as in Leake, Forrest and View Streets	H
Negotiate with the landlords of the businesses on Fitzgerald Street to permit their exclusive spaces to be available to the public after hours	H
Implement motorcycle parking bays in the View Street and Wasley Street car parks, and provide additional bicycle parking facilities in Fitzgerald Street and in Alma Road	H
Adopt and implement a parking hierarchy in North Perth as set out in Section 4.7 of the Draft Parking Strategy	H
Upgrade the presentation of the View Street car park as an example of best practice	H
Apply CPTED principles to this car park to improve perceived security and the overall pedestrian environment	H
View Street, Leake Street and Raglan Road could be identified as parking benefit districts and parking permits sold at a fair market price for parking between 0730 and 1730 Monday to Friday, to the commercial businesses	H
Review the current restriction in streets more than 250m from the business area to assess whether restrictions ca be reduced to accommodate employee parking	H
Undertake a parking survey in 2013 to assess any changes and take appropriate action, and use the results to identify locations where parking charges should be introduced (e.g. Fitzgerald Street and the off-street car parks)	M
Identify and implement improvements to the pedestrian network to facilitate and encourage walking, and continue to improve the accessibility of the parking areas and educate all users on the access options within a 5 minute walk	M
Continue to implement a parking hierarchy for North Perth	M
Provide one or two bicycle stands for short term visitors/customers on average every 50 m on streets in the retail core of North Perth	M
Negotiate with landlords of the Rosemount Hotel and Coles car parks for the Town to take over the management of each area as a single car park	M
Review installation of pay parking in streets abutting onto Fitzgerald Street between Menzies Street and Alma Road	M
Repeat the surveys to identify and take action on any changes to the parking situation in North Perth	L
Manage parking to prioritise activities supporting economic activity while providing additional space for pedestrian amenity	L
Commission an initial design and feasibility study for a deck car park	L

9 Perth Precinct

The Perth Precinct is defined as the area bounded by Beaufort Street, Newcastle Street, Lake Street and Bulwer Street. However the precinct north of Newcastle Street and east of William Street has been included in the Mount Lawley/Highgate precinct for the purposes of determining a Precinct Parking Management Plan.

This area shaded in yellow will be excluded from this Parking Precinct Plan for the area defined as the Perth Precinct (William Street is included in the Mount Lawley/Highgate Plan).

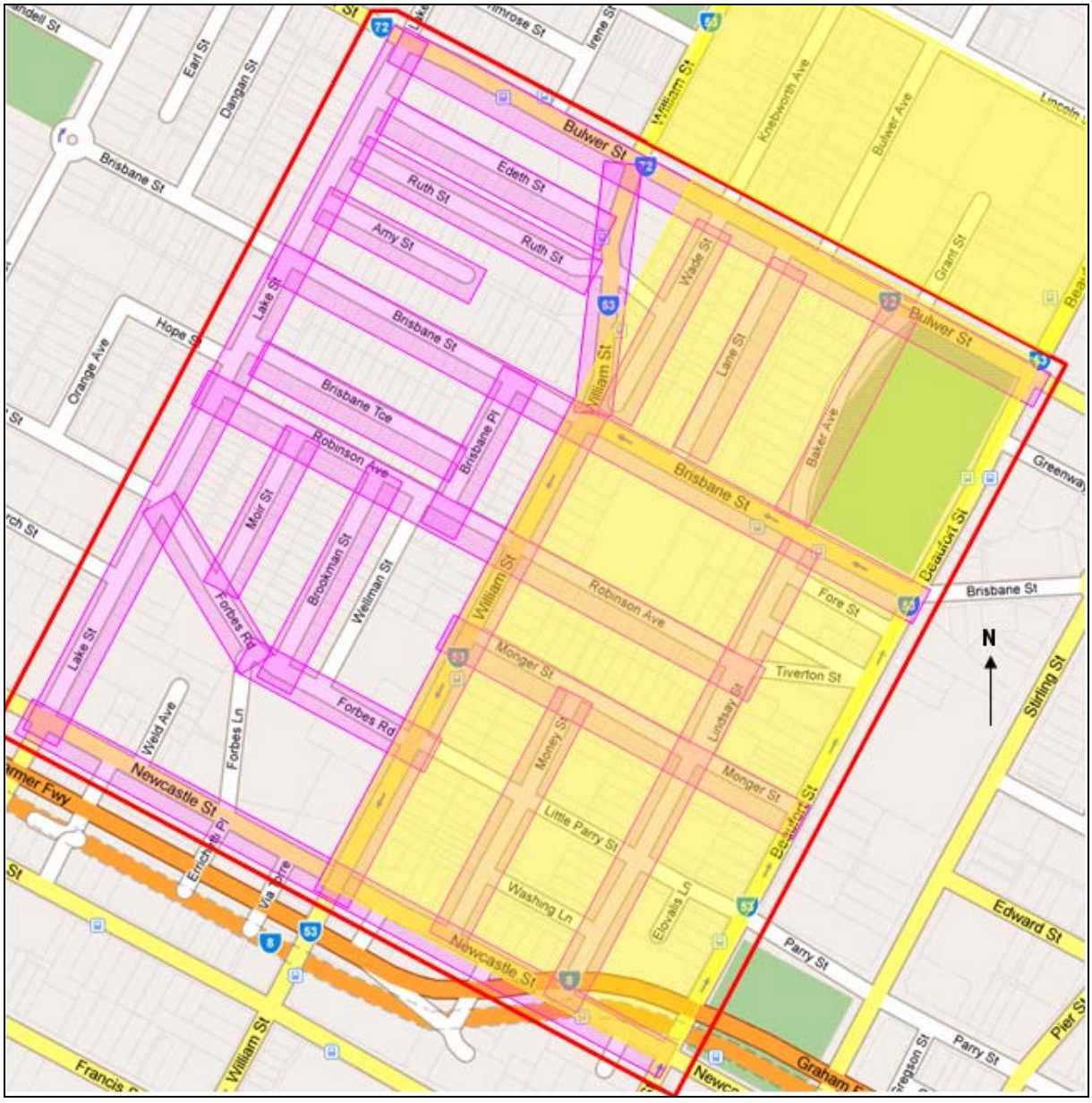

Figure 14: The Perth Precinct boundary (demarcated by red line)

Figure 15: Illustrates a 5 minute walk to the intersection marked "X"

9.1 Parking management issues & actions

9.1.1 The current situation

There are pockets of high parking occupancy close to the William Street trading area. However this high occupancy is a consequence of lack of street enforcement of time restrictions. There is however, relatively high vacancy at peak times especially on Brisbane Street within a 5 minute walk.

Overall there is not a significant shortage of parking supply as long as time restrictions are complied with.

9.1.2 Perth study area

The following is based on the results of parking surveys for the "Perth" area bounded by Beaufort Street, Newcastle Street, Lake Street and Bulwer Street held on Wednesday 12 and Friday 14 November between the hours of 9am and 9pm.

The assessment focuses on that part of the Perth survey area which is included in the Mount Lawley/ Highgate precinct, i.e. the area bounded by Bulwer Street, Beaufort Street, Newcastle Street and William Street. It includes the adjacent Brisbane Street car park. The survey counted a total of 661 public parking spaces in this area.

As Bulwer Street, Brisbane Street, Robinson Avenue and Newcastle Street extend across the whole Perth survey area, the assessment of these streets (occupancy and duration) refers to their whole length between Beaufort Street and Lake Street, not just to the parts between Beaufort Street and William Street.

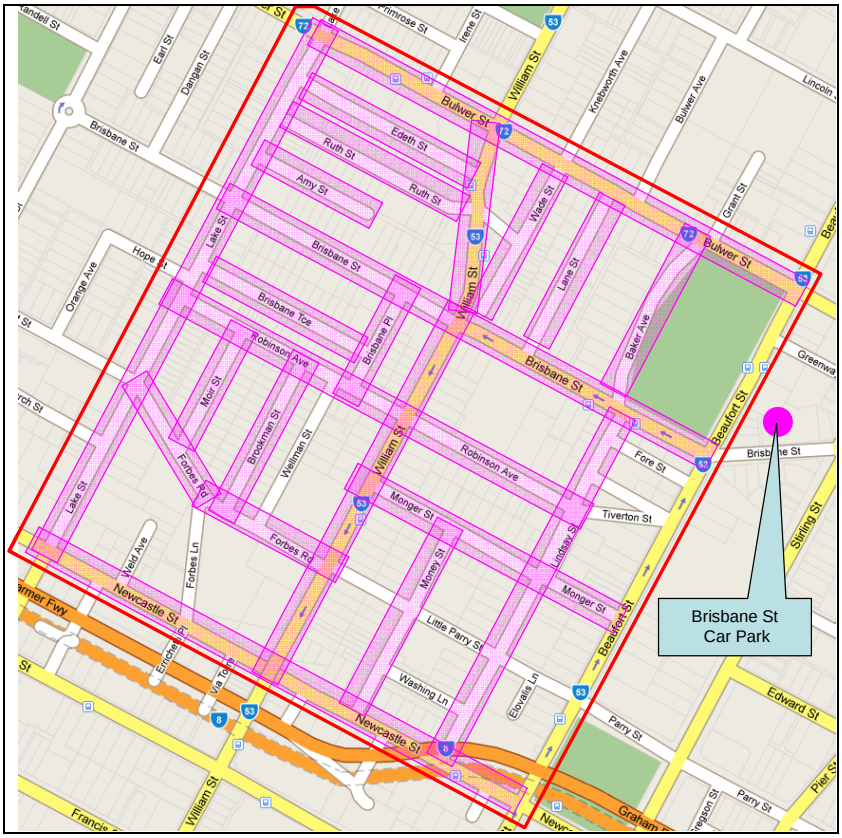

Figure 16: Perth study area

The Brisbane Street car park has ticket parking at a cost of $1.60 per hour with a maximum of $8.50 per day. There are no time restrictions. The car park has 228 bays including 4 ACROD bays. The car park was relatively little used with occupancy reaching only 21% during the period 12 noon to 2pm on both the Wednesday and Friday, increasing to 36% between 7pm and 9pm on the Friday evening.

Brisbane Street has a time restriction of 2P or less. Over the full length between Lake Street and Beaufort Street, the occupancy reached 49% between 12noon and 2pm and 68% between 7pm and 9pm on the Wednesday. The equivalent figures on the Friday were only 14% and 48% respectively. These figures do not indicate any major issues.

Bulwer Street has a 2P time restriction and Baker Avenue, Lane Street and Wade Street all have a 2P time restriction plus date restrictions. The Bulwer Street occupancy was 55% and 57% between 12noon and 2pm on the Wednesday and Friday respectively. Parking bay occupancy was 100% on Baker Avenue from 12noon-2pm on the Wednesday, but only 47% on the Friday over the same period. Lane Street had a 50% occupancy from 3-5pm on both days. Wade Street was relatively well utilised from 3pm through to 9pm on both days with a maximum of 81% occupancy from 3-5pm on the Wednesday.

These four streets all had a high proportion of parked vehicles staying over 3 hours despite the 2P restriction. The following proportions of vehicles staying over 3 hours were recorded:

Bulwer Street	43% Wednesday and 37% Friday
Baker Avenue	46% Wednesday and 16% Friday
Lane Street	29% Wednesday and 50% Friday
Wade Street	57% Wednesday and 44% Friday.

At the southern end of the area, Money Street (45 parking spaces) has a high occupancy. The surveys recorded occupancies of 82% from 12noon-2pm on each survey day, 89% from 7-9pm on Wednesday evening, 93% from 3-5pm on Friday afternoon and 84% from 7-9pm on Friday evening. Despite the 1P restriction, 16% of vehicles were parked for over 3 hours on the Friday.

Newcastle Street has a 2P restriction east of William Street, and either a 1P or a 2P restriction west of William Street. Peak occupancies recorded reached 83% from 9-11am and 92% from 7-9pm on Wednesday, and 81% from 3-5pm on Friday. However, 40% of vehicles were parked for over 3 hours on the Friday, reducing to 15% on the Friday.

Monger Street has 52 bays, of which 44 have a 2P restriction and 4 have a 15-minute time limit (plus 4 construction, 6am-6pm). A peak occupancy of 77% was recorded on Wednesday from 12noon-2pm, with 20% vehicles staying for over 3 hours.

Lindsay Street has 68 bays, of which 53 have a 1P, 6 a 2P and a 2 a 15 minute time restriction (plus 7 construction, 6am-6pm). Peak occupancies are relatively low reaching 47% and 40% from 12noon-2pm on Wednesday and Friday respectively. Despite the 1P restriction over most spaces, over 23% of vehicles stayed for over 3 hours on the Friday.

William Street (63 bays and a 2P restriction) has surveyed occupancies of 81% and 78% from 12noon-2pm on Wednesday and Friday respectively. Only 3% of vehicles were parked for more than 3 hours on both days indicating a high level of compliance. While this level of occupancy does not require immediate action, the situation should be monitored.

Findings

1. There is a high degree of non-compliance on Bulwer Street, Baker Avenue, Lane Street and Wade Street. Improved enforcement should remove the apparent parking deficiency identified on Baker Avenue by freeing up parking spaces in the area for short stay parkers.

2. There is ample parking available at the Brisbane Street car park to accommodate longer stay vehicles displaced from these streets.

3. High peak occupancies were recorded on Money Street and Newcastle Street. However, the results indicate that the first priority should be to improve enforcement in the area. Should peak occupancies continue to exceed 85% on Money Street despite effective enforcement, consideration should be to introducing pay parking on Money Street.

9.2 Parking management recommendations

The following are short term, medium term and long term recommendations for the Perth Precinct. Before outlining these, this section first identifies actions that apply to all high activity centres under investigation. It then discusses the implementation of paid parking.

9.2.1 Introduction of pay parking

The introduction of pay parking on-street should be considered when regular peak hour demand is starting to exceed 85%. This should be considered in Lake Street, Forbes Road and Newcastle Street.

9.2.2 Short term (by 2012)

The focus over the next 3 years should be on making more efficient and effective use of the available parking. Recommended measures are:

1. Significantly improve wayfinding signage to the parking areas either side of William Street from all destinations (Section 3.2 above). This is to include signage providing detailed information about alternative parking available at car parks such as Brisbane Street and the public car parks off William Street between Newcastle and Aberdeen Streets.
2. Amend the pay parking regime to apply to the period 7am to 7pm and 7am to 12 midnight for those parking bays where a charge applies for parking after 7pm.
3. Introduce parking restrictions such as 2P parking on residential streets when pressures from all-day commuter parking start to develop, such as in Brisbane Place.
4. Install pay parking on-street as marked in pink in Figure 17 below. The introduction of ticket issuing machines will improve compliance and increase the "churn" of parkers which in turn will ensure that there are adequate short-term parking facilities for patrons of local cafes, restaurants and other businesses.
   a. On both sides of Lake Street from Newcastle Street to Bulwer Street.
   b. On Forbes Road from Lake Street to William Street.
   c. On Newcastle Street from Lake Street to William Street.

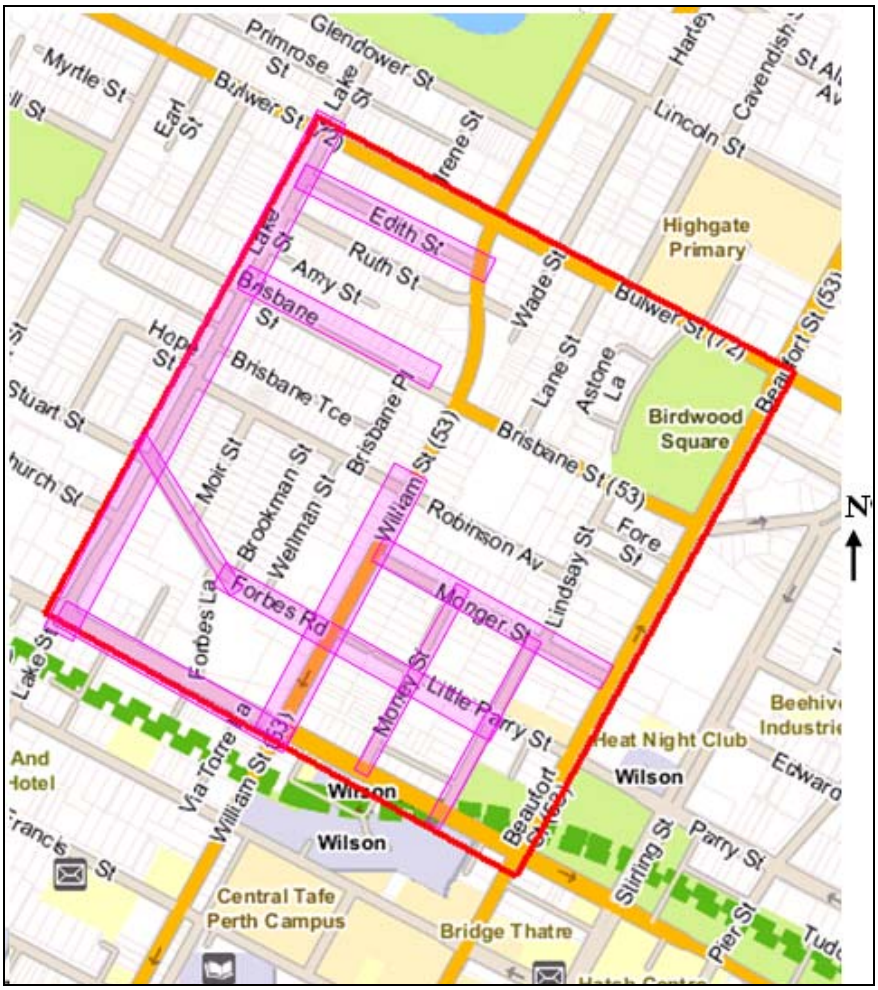

Figure 17: Recommended pay parking on-street

5. Payment for motorcycles and scooters is to be free, but subject to time restrictions.

6. Implement the parking fees proposed in Table 10 below. These include amending the maximum fees; implementing a 60c for 15 minutes charge for the convenience of premium short term parking on Lake, William and Newcastle Streets, a lower fee on adjacent streets and removing the reference to separate night fees.

7. Adopt and implement a parking hierarchy in the Perth Precinct as set out in Section 4.7 of the Draft Parking Strategy. This hierarchy acknowledges that in certain streets a distinction of priorities needs to be made between user categories.

8. Brookman Street could be identified as a parking benefit district (refer Section 4.4.4) and parking permits sold at a fair market price for parking between 0730 and 1730 Monday to Friday, to the commercial businesses.

9. Communicate the benefits of the above actions for all stakeholders in the Perth Precinct. In particular link the expanded meter locations and increased "churn" of vehicles with the additional income funded from increased pay parking, by undertaking visible improvements to parking and access for the precinct.

Table 10: Proposed new parking fee structure - Perth

Location	No. Bays	Current Fee Time period * Restrictions	Maximum	Proposed Fee Structure *
Lake Street from Newcastle St to Bulwer St		1/4P and 2P		50c for 15 mins, 7am-12 midnight Retain 2P 7am-7pm Scooters and m/cycles free No time restrictions after 7pm No maximum fee
Edith Street, Forbes Road and Forbes Lane		1P and 2P		50c for 15 mins, 7am-12 midnight Retain 1P or 2P 7am-7pm Scooters and m/cycles free No time restrictions after 7pm No maximum fee
Newcastle Street from Lake St to William St		1P and 2P		60c for 15 mins, 7am-12 midnight 1P or 2P 7am-7pm Scooters and m/cycles free No time restrictions after 7pm No maximum fee
Brisbane Street from Beaufort St to Lake St		1/4P 1P and 2P		60c for 15 mins, 7am-12 midnight 1/4P or 2P 7am-7pm Scooters and m/cycles free No time restrictions after 7pm No maximum fee

9.2.3 Medium term (2013 to 2017)

The medium term focus should be on continuing to provide efficient and cost effective parking while starting to make explicit use of parking as a travel demand management tool. Recommended measures are:

1. Undertake a parking survey in 2013 updating the 2008 survey to assess any changes and take appropriate action and use the results, supplemented by additional surveys as required, to identify locations where parking charges should be introduced or increased (e.g. Moir and Ruth Streets and Robinson Avenue).

2. Continue to implement a parking hierarchy for the Perth Precinct.

3. Negotiate with owners of the William Street Shopping Centre car park for the Town to take over the management of the area as a single car park to improve utilisation and to upgrade the overall presentation.

4. Review installation of additional pay parking in streets abutting onto William Street and Robinson Avenue.

9.2.4 Long term (2018+)

Towards and beyond 2020 the focus should be on strengthening a culture based on high use of public transport, walking and cycling, particularly for the trip to work but increasingly for other trip purposes. Parking should be used as a key travel demand management tool. Recommended measures are:

1. Repeat the surveys to identify and take action on any changes to the parking situation in Perth.

2. On the streets in the Perth Precinct core area where the emphasis will increasingly be on pedestrian movement, and public transport, it will be necessary to carefully manage parking to prioritise activities supporting economic activity while providing additional space for pedestrian amenity and, potentially, for public transport.

9.3 Parking inventories, supply and use of parking

Table 11: Off-Street Public Car Parks – November 2008

Car Park	No. Bays	Time Restrictions & Limits	Fee($)	Peak Occupancy (%) and Duration (% and hours)
Bulwer St Lake-William	33	2P		• 57% 12 – 2pm Wed • 57% vehicles parked <3 hrs
Edith St Lake-William	43	2P		• 58% - 88% Fri all day • 60% vehicles parked <3 hrs
Ruth St Lake-William	55	2P		• 44% - 60% Fri all day • 67% vehicles parked <3 hrs
Brisbane St Lake-William		15 min & 2P		• 68% 7 – 9pm Wed • 77% vehicles parked <3 hrs
Brisbane Tce	38	1P		• 50% 12 – 2pm Wed • 52% vehicles parked <3 hrs
Lake St	119	2P		• 81% - 89% Fri all day • 74% vehicles parked <3 hrs
Edith St	16	2P		• 58% - 88% Fri all day/eve • 60% vehicles parked <3 hrs
Forbes St	3	1P		• 54% - 104% Fri all day/eve • 89% vehicles parked <3 hrs
Newcastle St	22	1P & 2P		• 82% - 92% Wed all day • 60% vehicles parked <3 hrs
Total	**198**			

9.4 Recommendations – Perth

The following table summarises the recommended actions to maximise the available parking in Perth both on-street and off-street.

Priority: H - High (by 2012)
M - Medium (2013-2017)
L - Low (2018+)

Action	Priority
Significantly improve wayfinding signage to the parking areas either side of William Street from all destinations	H
Amend the pay parking regime	H
Introduce parking restrictions such as 2P parking on residential streets when pressures from all-day commuter parking start to develop, such as in Brisbane Place	H
Install pay parking on-street as marked in pink in Figure 17	H
Payment for motorcycles and scooters is to be free, but subject to time restrictions	H
Implement the parking fees proposed in Table 10	H
Adopt and implement a parking hierarchy in the Perth Precinct as set out in Section 4.7 of the Draft Parking Strategy	H
Brookman Street could be identified as a parking benefit district and parking permits sold at a fair market price for parking between 0730 and 1730 Monday to Friday, to the commercial businesses	H
Communicate the benefits of the above actions for all stakeholders in the Perth Precinct	H
Undertake a parking survey in 2013 to assess any changes and take appropriate action and use the results to identify locations where parking charges should be introduced or increased (e.g. Moir and Ruth Streets and Robinson Avenue)	M
Continue to implement a parking hierarchy for the Perth Precinct	M
Negotiate with owners of the William Street Shopping Centre car park for the Town to take over the management of the area as a single car park	M
Review installation of additional pay parking in streets abutting onto William Street and Robinson Avenue	M
Repeat the surveys to identify and take action on any changes to the parking situation in Perth	L
Manage parking to prioritise activities supporting economic activity	L

Appendix A – Parking requirements in the Town of Vincent

Land Use Parking Requirement Table[15]

ACTIVITY	NUMBER OF CAR PARKING SPACES
Aged or Dependent Persons' Dwelling	As prescribed by the Policy relating to Aged or Dependent Persons' Dwelling
Amusement Centre	3 spaces plus 1 space per 50 square metres of gross floor area
Amusement Facility	3 spaces plus 1 space per 50 square metres of gross floor area
Amusement Parlour	3 spaces plus 1 space per 50 square metres of gross floor area
Ancillary Accommodation	As prescribed by the Policy relating to Ancillary Accommodation
Animal Boarding	1 space per 4 staff employed
Animal Keeping	1 space per 4 staff employed
Art and Craft Centre	1 space per 10 square metres of gross floor area
Art Gallery	1 space per 50 square metres of gross floor area
Auction Mart	1 space per 50 square metres of gross floor area
Bank	1 space per 50 square metres of gross office/administration floor area plus 1 space per 15 square metres of gross retail banking floor area
Beauty Therapist	1 space per 15 square metres of gross floor area
Betting Agency	1 space per 15 square metres of gross floor area
Boat Sales and Hire Premises	3 spaces for the first 200 square metres of display and sales area and thereafter 1 space per 100 square metres of display and sales area or part thereof
Building Society	1 space per 50 square metres of gross office/administration floor area plus 1 space per 15 square metres of gross retail banking floor area
Business College	As determined by the Council
Camping and Caravan Park	1 space per caravan/park home site plus 1 space per employee plus 1 space per 20 caravan/park home sites for visitors
Caravan Park	1 space per caravan/park home site plus 1 space per employee plus 1 space per 20 caravan/park home sites for visitors
Caravan Sales and Hire Premises	3 spaces for the first 200 square metres of display and sales area and thereafter 1 space per 100 square metres of display and sales area or part thereof
Caretaker's Dwelling	As prescribed by the Residential Planning Codes
Child Care Centre	1 space per 5 children
Child Day Care Centre	1 space per 5 children
Child Family Care Centre	1 space per 5 children
Cinema	1 space per 6 seats provided
Club Premises	1 space per 3.8 square metres of public floor area or 1 space per 4.5 persons of maximum number of persons approved for the site, whichever is the greater
College	As determined by the Council
Consulting Room(s)	3 spaces per consulting room
Contractor's Yard	3 spaces for the first 200 square metres of yard area and thereafter 1 space per 100 square metres of yard area or part thereof
Dry Cleaning Premises	1 space per 20 square metres of gross floor area
Education Centre	As determined by the Council
Fire Brigades Depot	1 space per 50 square metres of gross floor area
Fish Shop	1 space per 15 square metres of gross floor area
Funeral Parlour	6 spaces plus additional parking spaces to be determined by the Council where a chapel is included
Grouped Dwelling	As prescribed by the Residential Planning Codes
Hairdresser Premises	1 space per 15 square metres of gross floor area
Hall	1 space per 3.8 square metres of public floor area or 1 space per 4.5 persons of maximum number of persons approved for the site, whichever is the greater
Health Club	1 space per 30 square metres of gross floor area
Home Occupation	As prescribed for the dwelling type defined by the Residential Planning Codes

[15] Extracted from the Town of Vincent's Parking and Access Policy 3.7.1

ACTIVITY	NUMBER OF CAR PARKING SPACES
Home Store	3 spaces plus as per Residential Planning Codes for the residential requirement
Hospital	As determined by the Council
Hotel	1 space per bedroom or 1 space per 3 beds provided, whichever is the greater, plus; 1 space per 3.8 per square metres of public floor area or 1 space per 4.5 persons of maximum number of persons approved for the site, whichever is the greater
Industry	3 spaces for the first 200 square metres of gross floor area and thereafter 1 space per 100 square metres of gross floor area or part thereof
Landscape Supplies	3 spaces for the first 200 square metres of display and sales area and thereafter 1 space per 100 square metres of display and sales area or part thereof
Laundromat	1 space per 20 square metres of gross floor area
Library	1 space per 50 square metres of gross floor area
Liquor Store	1 space per 15 square metres of gross floor area
Market	3 spaces per stall provided
Medical Centre	3 spaces per consulting room
Motor Vehicle Repair	3 spaces per each working bay provided
Multiple Dwelling	As prescribed by the Residential Planning Codes
Museum	1 space per 50 square metres of gross floor area
Night Club	1 space per 3.8 square metres of public floor area or 1 space per 4.5 persons of maximum number of persons approved for the site, whichever is the greater
Nursing Home	1 space per 3 beds provided
Office	1 space per 50 square metres of gross floor area
Open Air Display	3 spaces for the first 200 square metres of display and sales area and thereafter 1 space per 100 square metres of display and sales area or part thereof
Park Home	1 space per caravan/park home site plus 1 space per employee plus 1 space per 20 caravan/park home sites for visitors
Place of Assembly	1 space per 3.8 square metres of public floor area or 1 space per 4.5 persons of maximum number of persons approved for the site, whichever is the greater
Plant Nursery	1 space per 50 square metres of display and sales area
Post Office	1 space per 15 square metres of gross floor area
Pre-school	1.25 spaces per classroom provided
Real Estate Agency	1 space per 15 square metres of gross floor area
Reception Centre	1 space per 4 seats provided
Recreation – Indoor, Outdoor, Private, Public	1 space per 30 square metres of gross floor area
Recreation and Leisure	1 space per 30 square metres of gross floor area
Residential Building	1 space per bedroom or 1 space per 3 beds provided, whichever is the greater
Resort	1 space per bedroom or 1 space per 3 beds provided, whichever is the greater
Restaurant	1 space per 4.5 square metres of public area
Restricted Premises	1 space per 15 square metres of gross floor area
Retail Premises – Convenience Store	1 space per 15 square metres of gross floor area
Retail Premises – Local Shop	1 space per 15 square metres of gross floor area
Retail Premises – Restricted	1 space per 15 square metres of gross floor area
Retail Premises – Shop	1 space per 15 square metres of gross floor area
Retirement Village	1 space per residential dwelling provided
Salvage Yard	3 spaces for the first 200 square metres of yard area and thereafter 1 space per 100 square metres of yard area or part thereof
School	1.25 spaces per classroom provided
Service Station	1 space per working bay provided
Serviced Apartments	1 space per bedroom or 1 space per 3 beds provided, whichever is the greater

ACTIVITY	NUMBER OF CAR PARKING SPACES
Showroom	3 spaces for the first 200 square metres of gross floor area and thereafter 1 space per 100 square metres of gross floor area or part thereof
Single House	As prescribed by the Residential Planning Codes
Small Bar	1 space per 4.5 persons of maximum number of persons approved for the site
Storage Yard	3 spaces for the first 200 square metres of yard area and thereafter 1 space per 100 square metres of yard area or part thereof
Take-Away Food Outlet	1 space per 4.5 square metres of seating area plus 1 space per 2.5 square metres of queuing area with a minimum of 4 spaces
Tavern	1 space per 3.8 square metres of public floor area or 1 space per 4.5 persons of maximum number of persons approved for the site, whichever is the greater
Theatre	1 space per 6 seats provided
Transport Depot	3 spaces for the first 200 square metres of depot and gross floor area and thereafter 1 space per 100 square metres of depot and gross floor area or part thereof
Travel Agency	1 space per 15 square metres of gross floor area
Twenty-Three-Hour Recovery Care Centre	3 spaces per consulting room
University	As determined by the Council
Vehicle Sales and Hire Premises	3 spaces for the first 200 square metres of display and sales area and thereafter 1 space per 100 square metres of display and sales area or part thereof
Veterinary Centre	3 spaces per consulting room
Veterinary Clinic	3 spaces per consulting room
Veterinary Hospital	3 spaces per consulting room
Video Shop	1 space per 15 square metres of gross floor area
Warehouse	3 spaces for the first 200 square metres of gross floor area and thereafter 1 space per 100 square metres of gross floor area or part thereof

Bicycle Parking Requirement Table

CLASS	SECURITY LEVEL	DESCRIPTION	MAIN USER TYPE
1	High	Fully enclosed individual lockers	Bike and ride commuters at railway and bus stations
2	Medium	Locked compounds fitted with Class 3 facilities. Communal access using duplicate keys or electronic swipe cards	Regular employees, students, regular bike and ride commuters
3	Low	Facilities to which the bicycle frame and wheels can be locked	Shoppers, visitors to public offices. Places of employment where there is security supervision of the parking facilities

USER CLASS	EMPLOYEE/RESIDENT BICYCLE PARKING SPACE	CLASS	VISITOR/SHOPPER BICYCLE PARKING SPACE	CLASS
Amusement Parlour	-	1 or 2	2 spaces plus 1 per 50 square metres gross floor area	3
Art Gallery	1 space per 200 square metres gross floor area	2	2 spaces plus 1 per 1500 square metres gross floor area	3
Bank	1 space per 200 square metres gross floor area	2	2 spaces	3
Consulting rooms	1 space per 8 practitioners	2	1 space per 4 practitioners	3
Health Club	1 space per 400 square metres gross floor area	1 or 2	1 space per 200 square metres gross floor area	3
Hotel	1 space per 25 square metres bar floor area & 1 per 100 square metres lounge, beer garden	1 or 2	1 space per 25 square metres gfa and 1 per 100 square metres lounge, beer garden	3
Library	1 space per 500 square metres gross floor area	1 or 2	4 space plus 2 per 200 square metres gross floor area	3
Museum	1 space per 1500 square metres gross floor area	1 or 2	2 spaces and 1 per 1500 square metres gross floor area	3
Nursing Home	1 space per 7 beds	1 or 2	2 spaces and 1 per 1500 square metres gross floor area	3
Office	1 space per 200 square metres gross floor area	1 or 2	1 space per 750 square metres over 1000 square metres	3
Residential Building	1 space per 4 lodging rooms	1 or 2	1 space per 16 lodging rooms	3
Restaurant	1 space per 100 square metres public area	1 or 2	2 spaces plus 1 space per 100 square metres of public area	3
Retail premises – convenience store	1 space per premises	2	1 space per 20 square metres gross floor area	3
Retail Premises - shop	1 space per 300 square metres gross floor area	1 or 2	1 space per 200 square metres	3
School	1 space per 5 pupils over year 4	2		3
Take-away food outlet	1 space per 100 square metres gross floor area	1 or 2	1 space per 50 square metres gross floor area	3

Appendix B – Consolidated and prioritised, recommendations

The following table summarises the recommended actions for all and for each of the five high activity centres.

Priority: H - High (by 2012)
M - Medium (2013-2017)
L - Low (2018+)

Recommendation	Section	Leederville	Mount Hawthorn	Mt Lawley/ Highgate	North Perth	Perth	Priority
Wayfinding signage is installed initially on all main routes into the Town	3.2	√	√	√	√	√	**H**
Commence surveys in order to undertake a review of current ratios	3.4.2	√	√	√	√	√	**H**
Encourage practical shared parking initiatives for property developments	4.1	√	√	√	√	√	**H**
Amend the cash in lieu policy	4.2	√	√	√	√	√	**H**
Ensure details of all parking restrictions applicable in the Town are easily available	4.4.2	√	√	√	√	√	**H**
An annual charge of $50 per permit is introduced to cover administration and enforcement costs	4.4.3	√	√	√	√	√	**H**
Instead of making all residential streets near to the business precincts "Residential Parking only", a compromise solution is implemented	4.4.5	√	√	√	√	√	**H**
Harold Street between Stirling and Beaufort Streets could be identified as a parking benefit district	4.4.4			√			**H**
Brookman, Fairfield, View and Alma Streets, Raglan Road and Carr Place, are identified as a parking benefit districts	4.4.4	√	√			√	**H**
Urgently set up detailed overflow parking plans for special events and peak demand periods	4.5	√	√	√	√	√	**H**
All new developments, or applications for change of use are to provide a Parking Control and Management Plan (PCMP) with applications for developments with more than 10 parking spaces	4.6	√	√	√	√	√	**H**

Recommendation	Section	Leederville	Mount Hawthorn	Mt Lawley/ Highgate	North Perth	Perth	Priority
Education on the need for, and benefits of, managing parking demand should be available and regularly communicated in the Town's publications	4.14	√	√	√	√	√	**H**
Replace the existing ticket parking machines and install new machines with new technology	4.17	√	√	√	√	√	**H**
Adopt and implement a parking hierarchy	5 - 9	√	√	√	√	√	**H**
Convert the Frame Court car park from unrestricted to 3P parking	5.2.1	√					**H**
Apply a single hourly charge to all parking at The Avenue	5.2.1	√					**H**
Upgrade The Avenue car park to set an example of best practice	5.2.1	√					**H**
Implement the proposed parking fees in Table 2	5.2.1	√					**H**
Investigate introducing a fixed $3 fee to use the Leederville Oval parking area after hours	5.2.1	√					**H**
Cease offering a discounted monthly prepaid parking permit	5.2.1 7.2.1 9.2.2	√		√		√	**H**
Amend the pay parking regime	5.2.1 7.2.1 8.2.2	√		√	√	√	**H**
Remove the reference to night parking and increase the maximum charge in the off-street car parks	5.2.1 7.2.1 9.2.2	√		√			**H**
Upgrade the presentation of the Coogee Street car park to set an example of best practice	6.2.1		√				**H**
Review the underutilised off-street car park located on the east side of Oxford Street	6.2.1		√				**H**
Reduce the number of unrestricted on-street spaces	6.2.1		√				**H**
Convert all parking in the Chelmsford Road and Raglan Road car parks to pay parking	7.2.1			√			**H**
Install pay parking on-street as marked in pink in Figure 11	7.2.1			√			**H**

Recommendation	Section	Leederville	Mount Hawthorn	Mt Lawley/ Highgate	North Perth	Perth	Priority
Redesign access to the Barlee Street car park and create an entry only off Beaufort Street	7.2.1			√			**H**
Upgrade the presentation of the Barlee Street, Chelmsford Road and Raglan Street car parks as an example of best practice	7.2.1			√			**H**
Merge the parking and vehicle traffic flow between the Rosemount Hotel car park and the View Street car park	8.2.2				√		**H**
Implement motorcycle parking bays in the View Street and Wasley Street car parks, and provide additional bicycle parking facilities in Fitzgerald Street and in Alma Road	8.2.2				√		**H**
Upgrade the presentation of the View Street car park as an example of best practice	8.2.2				√		**H**
Implement the parking fees proposed in Table 10	9.2.2					√	**H**
Install pay parking on-street as marked in pink in Figure 17	9.2.2					√	**H**
Approach the various owners of off-street parking and negotiate to permit the Council to take over the management of all the parking in each area as a single car park	3.3	√	√	√	√	√	**M**
Amend the Shortfall Parking Table within the Town's Parking Access Policy, used to assess development applications to facilitate and encourage applications for shared parking	3.4.1	√	√	√	√	√	**M**
Over the next 3 to 8 years, the existing parking ratios should be amalgamated into fewer categories	3.4.2	√	√	√	√	√	**M**
Amalgamate the existing parking ratios into fewer categories, and investigate replacing minimum standards with maximum standards in the longer term	3.4.3	√	√	√	√	√	**M**
Many of these car park areas should be available to other users outside of normal business hours	4.1	√	√	√	√	√	**M**

Recommendation	Section	Leederville	Mount Hawthorn	Mt Lawley/ Highgate	North Perth	Perth	Priority
The Draft Parking Strategy recommends the deletion of Section 11 (xi and xii) of the Parking and Access Policy, whereby a contributor to cash in lieu may obtain a refund or a free parking pass	4.2	√	√	√	√	√	**M**
Current restrictions in streets more remote from the business areas are reviewed to assess whether they can be modified	4.4.2	√	√	√	√	√	**M**
All applications for developments seeking more than 50 parking spaces will be required to follow a discretionary resource consent process	4.7	√	√	√	√	√	**M**
Public and private car parks initially assume that 2% of vehicles are motorcycles or scooters	4.8	√	√	√	√	√	**M**
Undertake a city-wide programme in the Town for providing additional free parking for scooters and motorcycles	4.8	√	√	√	√	√	**M**
It is recommended that more motorcycle parking spaces can be introduced in several of the off-street car parks	4.8	√	√	√	√	√	**M**
One or two bicycle stands for short term visitor/customer bicycle parking should be provided on average every 50m on streets	4.9	√	√	√	√	√	**M**
Provision of additional cycle parking	4.9	√	√	√	√	√	**M**
Crime Prevention through Environmental Design (CPTED) principles should be applied to the car parking facilities throughout the Town	4.11	√	√	√	√	√	**M**
Upgrade the major pedestrian thoroughfares to and within all public off-street car parks	4.13	√	√	√	√	√	**M**
Surveys of demand and duration patterns should be undertaken regularly	4.16	√	√	√	√	√	**M**

Recommendation	Section	Leederville	Mount Hawthorn	Mt Lawley/ Highgate	North Perth	Perth	Priority
Continue to replace ticket parking machines within a few years as part of an overall parking meter replacement program together with the purchase of additional machines required	4.17	√	√	√	√	√	**M**
Undertake a parking survey in 2013 updating the 2008 survey to assess any changes and take appropriate action	5 - 9	√	√	√	√	√	**M**
Identify and implement improvements to the pedestrian network and educate all users on the access options within the 400m, 5 minute walk	5 - 9	√	√	√	√	√	**M**
Manage all public parking within a 5-minute walk of the centre of Leederville as paid short stay parking	5.2.2	√					**M**
Provision of consolidated bicycle parking stands in the Frame Court car park	5.2.2	√					**M**
Review installation of additional pay parking in streets abutting onto Beaufort and William street south of Bulwer Street	7.2.2			√			**M**
Review installation of pay parking in streets abutting onto Fitzgerald Street between Menzies Street and Alma Road	8.2.3				√		**M**
Review installation of additional pay parking in streets abutting onto William Street and Robinson Avenue	9.2.3					√	**M**
Encourage development close to stations/bus interchanges by assuming an 80% car use for sites in the range 400-800m from the station or bus interchange	3.4.3	√	√	√	√	√	**L**
Introduce maximum parking ratios for other non-residential developments in activity centres and growth corridors. The maximum parking standards are to be set initially at 90% of the current minimum standards	3.4.3	√	√	√	√	√	**L**

Recommendation	Section	Leederville	Mount Hawthorn	Mt Lawley/ Highgate	North Perth	Perth	Priority
Introduce and enforce parking restrictions such as 2P parking on residential streets when pressures from all-day commuter parking start to develop	5 - 9	√	√	√	√	√	**L**
For new high density residential developments, on-street parking should be time restricted during the day to cater for visitors	5 - 9	√	√	√	√	√	**L**
Commission an initial design and feasibility study for a deck car park	5 - 8	√	√	√	√		**L**

Appendix C – Recommended locations for new ticket machines

Priority: H - High (by 2012)
M - Medium (2013-2017)
L - Low (2018+)

Precinct	Proposed Location	Qty	Priority
Leederville	Oxford Street, between Leederville Parade and Richmond Street	15	H
Leederville	Newcastle Street, between Oxford Street and Carr Place	2	H
Leederville	Richmond Street, between Oxford Street and Loftus Street	14	H
Mt Lawley/ Highgate	Beaufort Street from Walcott Street to Chatsworth Road/ Broome Street	20	H
Mt Lawley/ Highgate	Raglan, Grosvenor and Chelmsford Roads from Beaufort Street to Hutt Street	12	H
Mt Lawley/ Highgate	Harold Street and Broome Street from Beaufort Street to Stirling Street	4	H
Mt Lawley/ Highgate	Barlee Street and Clarence Street for 80m from Beaufort Street	4	H
Mt Lawley/ Highgate	William Street between Newcastle and Monger Streets	4	H
Mt Lawley/ Highgate	Monger Street, Money Street, Little Parry Street and Lindsay Street	16	H
Mt Lawley/ Highgate	Newcastle Street from Beaufort Street to Forbes Lane	8	H
Mt Lawley/ Highgate	Chelmsford and Raglan Street car parks	2	H
N Perth	Fitzgerald Street between Menzies Street and Alma Road	8	M
Perth	Lake Street from Newcastle Street to Bulwer Street	12	H
Perth	Forbes Road from Lake Street to William Street	5	H
Perth	Newcastle Street from Lake Street to William Street	6	H
	Total	**132**	

It is **recommended** that new ticket machines are installed in all high priority locations by 2012. As a matter of urgency the 31 machines in Leederville and the 23 machines in Perth should be installed first.

Appendix D – Event Management Plan

Background

Event parking management plans reduce parking demand and traffic congestion and confusion. They are particularly appropriate at any location where peak parking demands creates problems.

They require the establishment and communication and marketing of alternative and remote parking facilities, combined with secure pedestrian access. Costs will include additional staff time, equipment and special services.

The Town needs to establish and clearly communicate clear rules to inform drivers where and when they may or may not park. This requires not only clearer signage, but also advance notification of nearby options (wayfinding signage and maps).

The event plan must be supported by effective enforcement systems. (For example Christchurch in New Zealand adopts a “zero tolerance” approach towards parking infringements including monitoring, fines and even towaways). As increased enforcement will be necessary in certain areas especially at times which attract crowds and this is likely to require additional staff resources.

Any event management parking plan requires the allocation of sufficient resources for both the planning and the implementation stages. These include not only labour and supervision, but signage, liaison with other organisations (e.g. the police), technology for communications, and prior dissemination of information in the media to those attending the event as well other persons or businesses that may be affected by traffic and parking management associated with the event. The cost of additional resources should be recoverable wherever possible from the event organisers.

Overview

This Plan provides a checklist of the issues that need to be addressed by specific procedures by which transportation and parking issues related to large events in the Town will be handled. It will describe how vehicular and pedestrian activity in the vicinity of the event will be controlled, and also the methods of minimising traffic and parking impacts in the neighbouring communities.

Drivers coming to and departing from the event will be encouraged to use specific routes and preferred parking facilities. This goal will be achieved through a combination of pre-selling parking spaces, permanent signage, changeable message signs, media releases, and mass marketing programs designed to inform the public and event attendees about these travel routes and parking facilities.

The use of various temporary traffic control devices, in conjunction with the deployment of traffic police close to the venue, will give priority to the established travel routes, thereby minimising traffic and parking impacts on the neighbouring communities.

The following issues should be considered for all major events which will have an impact on parking and traffic in the precinct.

1. Constraints

The Plan is subject to the following constraints:

No access from……. (specify the routes)

Keep existing public transit routes open.

Avoid sending traffic into streets which are already congested during weekend/evening hours and also have a large number of pedestrians.

Minimise vehicle/pedestrian flow conflicts as much as possible. Large numbers of pedestrians and vehicles will be arriving and leaving the event at the same time. To protect pedestrians and to keep traffic flowing, areas of conflict should be kept to a minimum.

Direct traffic away from streets which pass through adjacent neighbourhoods. Event-related vehicular usage of these streets will be discouraged.

Discourage or prohibit event attendees from parking on-street in surrounding communities.

2. Geographic and Timeframe Definitions

The Plan will focus on traffic and parking impacts in several areas. Insert a detailed map of the area and the boundaries to which it applies

3. Resources

Clearly determine the staff and external support required and ensure staff are:

- uniformed, identifying them as a parking and traffic officer
- trained, particularly what to do in an emergency
- have suitable communication equipment
- are made aware of other staff and other organisations such as traffic police and ambulance officers that are on duty at the event.

4. Parking Supply

Detail the number of on and off-street parking spaces available.

5. Parking Zones and Times

Define the zones and the applicable times for the event.

6. Preferred Access Routes

Detail these for both in bound and outbound traffic.

7. Traffic Flow & Control – Inbound

The Town is to implement comprehensive and intensive public information programs to educate all event attendees about the options for driving to the event area.

8. Traffic Flow & Control – Outbound

Immediately following an event, there will be a large number of pedestrians departing and moving toward their cars, buses, and downtown businesses. The dispersal of pedestrians into the commercial streets will be a significant factor in minimising the number of pedestrian/vehicle conflict points. In the first minutes at the end of an event, when the greatest numbers of attendees are departing, some streets immediately surrounding may need to be closed to vehicular traffic to facilitate this dispersal.

9. Pricing

Wherever possible, parking should be paid for in advance at a fixed fee for the duration of the event and for at least 3 hours thereafter. If meters are used, their normal per hour fee structure should be adjusted for the event. Payment should be simple and convenient and easy to understand (e.g. $10).

Payment for parking will recover some of the additional costs incurred in managing the event.

10. Public information program

The event organisers are to ensure that the general public and ticket holders are fully informed regarding all features of the transportation and parking plan for the venue.

A public information plan will utilise the event organisers communications resources to inform and educate the public. Major features of this program will include printed materials, on-line information, media exposure (print, radio and television) and other information sources.

10.1 Printed materials

The organisers are to produce printed materials detailing information regarding parking and transportation for the venue. Information to be included will be locations of available parking facilities modes of public transit, suggested vehicular and recommended pedestrian ingress and egress routes. Printed information will also present maps, parking prices and costs for the various modes of transportation.

The printed materials will be widely distributed well in advance of the event. In addition, they will be available to the general public and be mailed to all season ticket holders and other ticket purchasers as necessary.

10.2 On-line information

The event organisers are to make transportation and parking information for the venue available on the associated web page through a variety of links including but not limited to their home page.

10.3 Town of Vincent Home Page

This is to include a Traffic Information Page. Addresses for on-line links will be listed on event organisers printed materials as they relate to transportation and parking.

10.4 Radio/Television

The event organiser is to use both television and radio to communicate information regarding the venue and parking transportation and parking.

Television may be used to promote the key messages of the transportation and parking plans for the event as well as promoting available modes of transportation with clear instructions on how this information may be obtained. Radio/SMS may be used to assist by relaying real time information and current traffic reports.

Information at the event

A comprehensive communication program will also include messages at the venue to keep the public informed. Screens are to be located inside and around the venue providing transportation- related information.

Scoreboard/stage messages and public address announcements may be used to communicate messages specific to parking operations.

Finally, the event organiser is to employ trained and supervised “Customer Assistance Officers” throughout the nearby areas and at the venue to answer questions and offer assistance regarding transportation and parking.