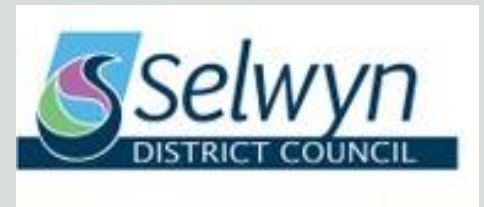


Lincoln Town Centre Parking Management Plan



Lincoln Town Centre Parking Management Plan

Selwyn District Council

Quality Assurance Information

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Executive Summary

Introduction

Parking in the Lincoln Town Centre is currently provided through a combination of on-street spaces and a number of privately-owned and Council managed off-street parking areas. A Parking Management Plan has been developed to support the Lincoln Town Centre Plan. The Lincoln Town Centre Parking Survey undertaken on Thursday 26 March 2015 and the Lincoln Town Centre Streetscape informed the development of this management plan. The vision for parking is:

Parking is managed in a manner which supports a sustainable, prosperous, vibrant and easily accessible Town Centre.

As part of the Lincoln Town Centre Plan process a street design exercise was undertaken. This concluded that an upgrade of Gerald Street be undertaken to meet the vision of the plan. The key feature of the design is the inclusion of separated bicycle lanes on each side of Gerald Street. To accommodate the design within the road reserve 32 parking spaces on the north side of the street will need to be removed between West Belt and Kildare Terrace. Any loss of on-street parking, which is considered by the community to be 'convenient' parking, was considered carefully in terms of the impact on parking supply.

Proposed Cross section for Gerald Street between Kildare Tce and West Belt



The Lincoln Library off-street car park was only partially formed at the time of the 2015 survey and the remaining area of the car park was still under construction. The carpark currently provides 30 car parking spaces including four disabled parking spaces. The carpark will provide an additional 32 car parking spaces when fully formed and include the area to the west of the existing formed car park to West Belt. It is considered that the proposed reduction in on-street car parking spaces on Gerald Street (32 spaces) is offset by the additional off-street parking at the Lincoln Library in terms of overall supply at the time of the survey. The Library car park is located within reasonable walking distance of 200m to 300m to the existing businesses on Gerald Street. The construction of the off-street car park will be completed before the Gerald Street upgrade.

Parking Supply

Lincoln is one of the main urban centres of the Selwyn District and as the population grows and parking demand increases, management of the parking resource will become an increasingly important priority for Council. Efficient provision of parking is paramount to the ongoing growth and development of the Lincoln Town Centre. It is understood that the community, including the businesses in the town centre, are concerned that the current level of parking supply is insufficient. The parking survey showed that at peak times the occupancy in some Council owned off-street parking areas and in a private off-street car park (Lincoln Vale car park) was high, exceeding 80% occupancy during the peak 30-minute parking period (1pm-1.30pm). Also a total of five on-street parking areas also exceeded 80% occupancy and another two on-street parking areas reached 80% occupancy during the peak 30-minute period. However across the entire day the survey showed that the overall the parking occupancy is below the 80% to 85% optimum occupancy range. Occupancies higher than 85% create difficulties for motorists searching for a car parking space.

In the short term it appears the current parking supply is sufficient for a typical weekday however with the population growth expected, and the increase in Town Centre destinations over time, increasing the parking supply will be required in the medium to long term.

The following recommendations are made with respect to **managing current supply better** and **future parking supply**:

- It is recommended that the existing parallel on-street parking spaces on Gerald Street within the Core Retail Area (East) are 'marked up' as individual spaces, rather than a line at each end of the parking lane. Marking these parking spaces is expected to result in more efficient use of space which will maximise the number of vehicles which can park in an area.
- It is recommended that the potential to increase parking on the side streets is investigated. For example by converting existing parallel parking to angle parking this could improve the 'efficiency' of these areas. Modifications to on-street parking layouts are low-cost solutions that could be implemented in the short term.
- It is recommended that any opportunities to create shared public/private and shared private parking areas are pursued. For instance it was observed that the Church car park on the corner of Gerald Street and West Belt was empty on the day of the survey, there may be opportunities for Council and land owners to reach agreement on sharing car parks so that land in the Town Centre is used more efficiently.

Parking time management

Observation of 'duration of stay' in on-street and Council owned parking areas during the March 2015 parking survey indicated that over half of all visitors parked for less than 30 minutes. The 'duration of stay' on Gerald Street is generally for less than 30 minutes except on the south side of Gerald Street west of West Belt. The longer 'duration of stay' of more than 4 hours was observed at Gerald Street west of Murray Place. It is likely that the parking was associated with the residents on Gerald Street or staff working at New World or the adjacent service station. The general 'duration of stay' of parked vehicles in various parking areas in the Town Centre is shown below.

General Duration of Stay within each section



The following recommendation is made with respect to **better managing the turnover of the on-street parking**:

- It is recommended in the short term that P60 (1 hour) restrictions are applied to Gerald Street (between Kildare Terrace and West Belt). This will enable short stay visitors to find a parking space during peak times. This change should be monitored and altered in conjunction with the town centre businesses over time as required.
- It is recommended that P240 (4 hour) restrictions are applied to the majority of the side streets within the Core Retail Area. Parking on these streets beyond the Core Retail Area would cater for all day parking.
- It is recommended that a P120 (2 hour) restriction is applied to the Lincoln Library car park to provide for longer stay visitors but not whole day or staff parking.

There are other parking management methods that could be utilised to meet the parking vision including parking search routes, parking regulation (District Plan), reducing parking demand (mode shift and pricing) and improving user information. An Action Plan showing these and the parking supply and time management recommendations are outlined below.

Action Plan for
Parking
Management in
Lincoln

No.	Action
Short Term (0-2 years)	
1	Mark up the individual parking spaces on Gerald Street to better utilise the kerbside space.
2	Introduce parking restrictions as recommended in Section 4 and monitor the success of this prior to the Gerald Street upgrade.
3	Progressively introduce parking enforcement to support the parking restrictions
4	Implement parking search route signage at either end of the Core Retail Area (East)
5	Develop a parking user information webpage within Council's website and print brochures which also provide this information for distribution to businesses within the town centre.
6	Investigate opportunities to increase on-street parking capacity in the side streets in the Core Retail Area (East) prior to the Gerald Street upgrade.
7	Investigate opportunities to increase off street parking supply in the Core Retail Area (East), such as the use of private car parks or communal car parks.
8	Review parking requirements in the District Plan.
Medium Term (2-3 years)	
9	Potentially implement a new off-street car parking area.
10	Extend provision of trip facilities for active transport modes, such cycle parking, seating areas and drinking fountains.
11	Include active transport provisions in the future intersection and street upgrades along Gerald Street
Long Term (4-10 years)	
12	Implement Priced Parking if optimal parking rates are being consistently exceeded with existing restrictions

Contents

1.	<i>Introduction</i>	5
2.	<i>Vision and Objectives</i>	6
2.1	<i>Vision</i>	6
2.2	<i>Objectives</i>	6
3.	<i>Parking Survey Findings</i>	7
3.1	<i>Parking Occupancy</i>	7
3.2	<i>Parking Duration and Turnover</i>	10
4.	<i>Parking Management Methods</i>	13
4.1	<i>Parking Supply</i>	13
4.2	<i>Parking Search Routes</i>	16
4.3	<i>Parking Planning</i>	17
4.4	<i>Reducing Parking Demand - Mode Shift</i>	18
4.5	<i>Reducing Parking Demand - Parking Pricing</i>	19
4.6	<i>User Information</i>	20
4.7	<i>Special Event Parking</i>	20
5.	<i>Action Plan</i>	21

1. Introduction

The Selwyn District Council (Council) commissioned Abley Transportation Consultants Limited to develop a Parking Management Plan to support the Lincoln Town Centre Plan development. Parking in the Lincoln Town Centre is currently provided through a combination of on-street spaces and a number of privately-owned and Council managed off-street parking areas.

Lincoln is one of the main urban centres of the Selwyn District and the Selwyn Growth Model¹ (updated on 23 March 2015) shows that Lincoln's population is projected to double over the next two decades. As the population grows and parking demand increases, management of the parking resource will become an increasingly important priority for Council. Efficient provision of parking is paramount to the ongoing growth and development of the Lincoln Town Centre. A vision and objectives for managing parking are outlined in Section 2.

It is understood that the community, including the businesses in the town centre, are concerned that the current level of parking supply is insufficient. This is particularly the case on Saturday mornings when a Farmers Market is held north of the library and people are accessing the sports grounds to the north of the town centre.

This Plan is informed by the Lincoln Town Centre Parking Survey² (Abley Transportation Consultants, 2015) and the Lincoln Opportunities³ document (Selwyn District Council, 2011) which outlines the opportunities for enhancing the town centre as Lincoln grows. The findings of the parking survey are discussed in Section 3.

As part of the Lincoln Town Centre Plan process a street design exercise was undertaken. This concluded that an upgrade of Gerald Street be undertaken to meet the vision of the plan. The key feature of the design is the inclusion of separated bicycle lanes on each side of Gerald Street. To accommodate the design within the road reserve 32 parking spaces on the north side of the street will need to be removed between West Belt and Kildare Terrace. The proposed cross section is shown below in **Figure 1.1**. Any loss of on-street parking, which is considered by the community to be 'convenient' parking, will need to be considered carefully in terms of the impact on parking supply.

Figure 1.1
Proposed Cross
section for Gerald
Street between
Kildare Tce and
West Belt



Section 4 discusses a range of parking management methods and recommends which are applicable to Lincoln. Section 5 outlines an Action Plan for the short, medium and long term.

Appendix A provides more detail on Parking Management Principles.

¹ https://www.selwyn.govt.nz/_data/assets/pdf_file/0009/157455/SDC-Growth-Projections-2015.pdf

² Abley Transportation Consultants (April 2015) *Lincoln Town Centre Parking Survey*

³ https://www.selwyn.govt.nz/_data/assets/pdf_file/0010/53839/Lincoln-Opps-March-2011.pdf

2. Vision and Objectives

2.1 Vision

Parking is managed in a manner which supports a sustainable, prosperous, vibrant and easily accessible Town Centre.

2.2 Objectives

The supply and management of public parking is a service that Council currently provides to the community through on-street and off-street parking spaces. Private parking for customers and staff is supplied and managed by the private sector and contributes to the overall parking supply.

This Parking Management Plan seeks to ensure that parking is provided in an economically, environmentally and socially sustainable manner. The objectives of the Parking Management Plan are:

- Parking supply and management enhances the economic growth of the Lincoln Town Centre;
- The operation, management and delivery of parking is efficient and cost effective thereby reducing overall costs to the community;
- Parking management contributes to achieving a sustainable future for the Lincoln Town Centre;
- Parking that complements the 'village feel' of the Lincoln Town Centre;
- Parking is supplied and managed in an efficient manner which meets the needs of the community i.e. parking that meets the users need;
- Parking areas and connections are provided to maximise the safety of the community;
- Parking opportunities are convenient for users and respond to the different needs of the community; and
- Parking is provided in a legible manner i.e. it is easy to find.



3. *Parking Survey Findings*

This section discusses the key findings of a parking survey undertaken on Thursday 26 March 2015 between the hours of 8:30am and 5:30pm. The parking survey allowed parking occupancy and turnover statistics to be determined for Council controlled spaces and occupancy statistics for privately owned car parking spaces. The findings are important to consider when deciding what parking management methods are appropriate for Lincoln Town Centre.

3.1 *Parking Occupancy*

Parking opportunities in the Lincoln Town Centre are provided both on and off-street. Council provides around 309 on-street spaces and 85 off-street spaces in five off-street car parking areas. An additional 124 parking spaces are provided in private off-street car parks within the study area. These are provided privately as customer and staff parking spaces. These have no time restrictions.

The survey found that overall parking occupancy, when combining on-street and off-street parking in the Lincoln Town Centre was generally 50% to 60% between 9:30am to 3:00pm and peaked between 1:00pm to 1:30pm with 59% occupancy.

The parking survey showed that Council owned off-street parking is most demanded with 63% of parking spaces being occupied on average throughout the survey period compared to 49% in private off-street and on-street parking areas.

The parking occupancy on Gerald Street within the core of the town centre is generally higher compared to the occupancy of Gerald Street west of West Belt.

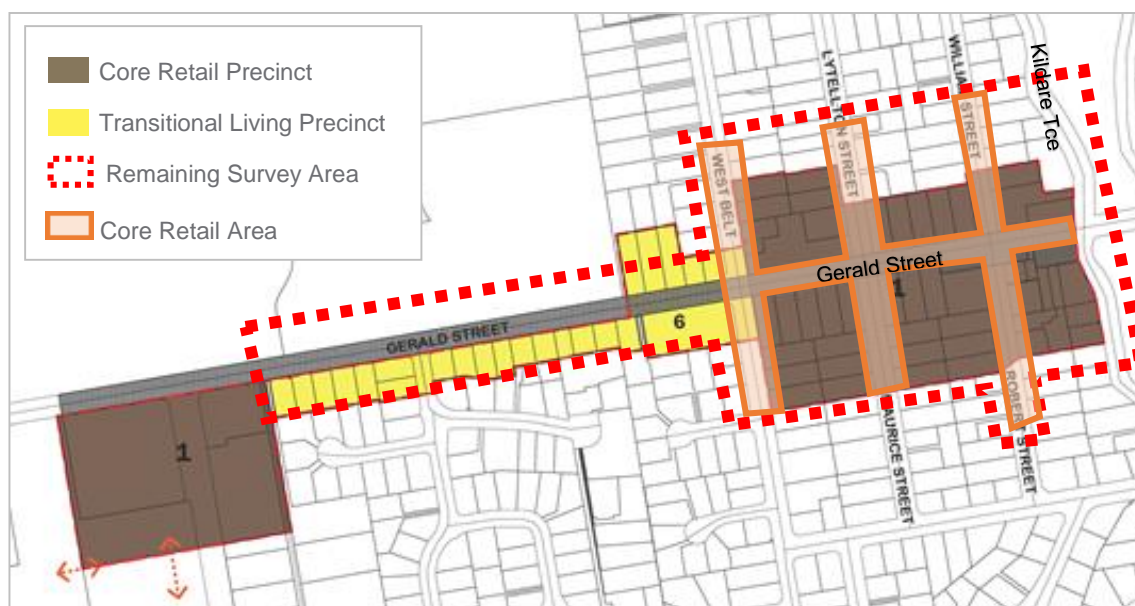
Parking in the Core Retail Area was observed to be 5 - 12% higher than the average occupancy rate over the entire study area. The occupancy levels of various parking areas in the Town Centre are discussed further on the following pages.



The occupancy results are discussed in terms of two distinct parts of the parking survey area, as shown in **Figure 3.1**. Each of these areas have different parking characteristics:

- The Core Retail Area– this area has the highest demand for parking and only includes on-street parking; and
- The Remaining Survey Area – this area is similar to the March 2015 survey area excluding the Core Retail Area. This area includes all surveyed off-street parking areas and includes moderate on-street parking demand areas.

Figure 3.1 Lincoln Town Centre



It should be noted that the Lincoln Library off-street car park was only partially formed at the time of the survey and the remaining area of the car park was still under construction. The carpark currently provides 30 car parking spaces including four disabled parking spaces. The carpark will provide an additional 32 car parking spaces when fully formed and include the area to the west of the existing formed car park to West Belt.

Figure 3.2 Lincoln Town Centre Parking Occupancy

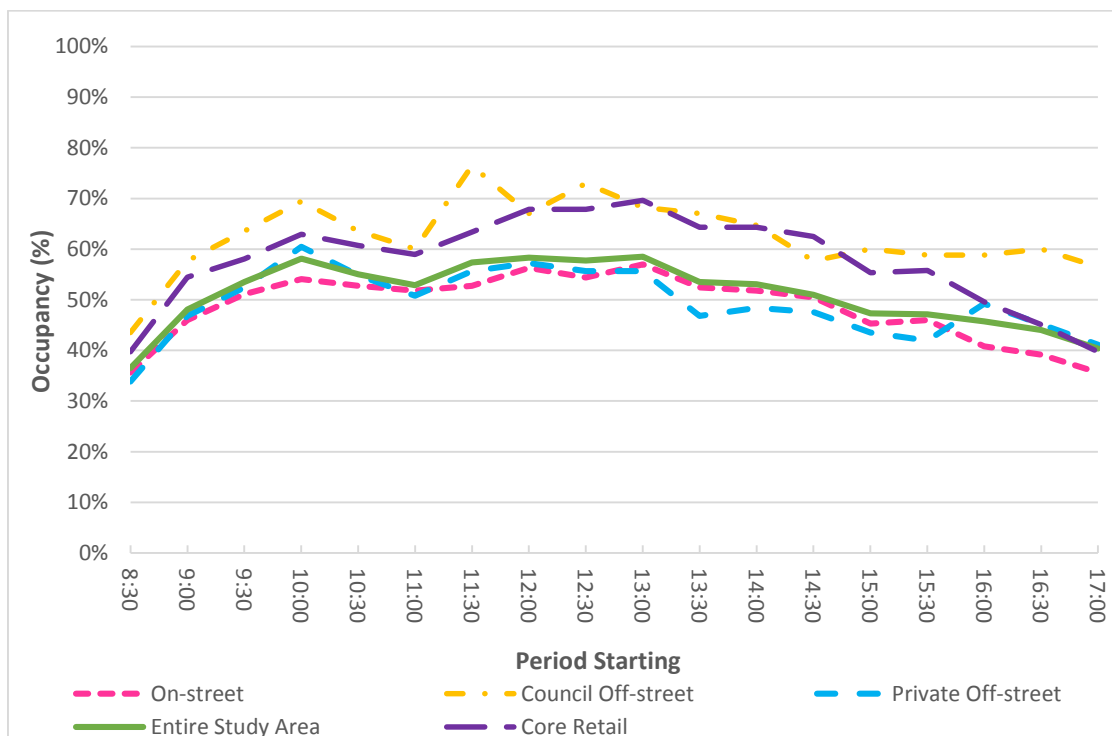


Figure 3.2 shows that the peak parking occupancy in the Core Retail Area (purple dashed line) occurred between 1:00pm to 1:30pm and reached 70%, this was 12% higher than the peak occupancy across the entire survey area of 58% (solid green line). Peak occupancy in some on-street parking areas within the Core Retail Area exceeded 85% which could be why visitors report having difficulty in finding a parking space in the town centre. This results in additional vehicle circulation in and around the town centre.

While overall parking demand is high, some parking areas are better utilised than others. The private off-street parking areas behind the Famous Grouse (between William Street and Kildare Terrace) are significantly underutilised compared to other off-street parking areas.

It was noted in the survey report that the highly occupied spaces on side streets are up to 200m walking distance from the centre of Gerald Street. Although it is not known whether the spaces are occupied by people accessing Gerald Street businesses it does indicate that people may be prepared to walk up to 200m between their parked vehicles and their destination.

Observation of 'duration of stay' in on-street and Council owned parking areas during the March 2015 parking survey indicated that over half of all visitors parked for less than 30 minutes.

Parking Duration

- Generally half hour
- Generally half hour or more than 4 hours
- Generally half hour to an hour
- Generally less than two hours
- Generally more than 4 hours

Parking duration in the town centre on the day of the survey is shown in **Figure 3.4**. The 'Gerald Street' column includes parked vehicles on Gerald Street (between Kildare Terrace and West Belt) and the two angle parking areas at the southwest and southeast corner of the Gerald Street / Robert Street intersection.

Figure 3.4 Lincoln Town Centre Parking Duration

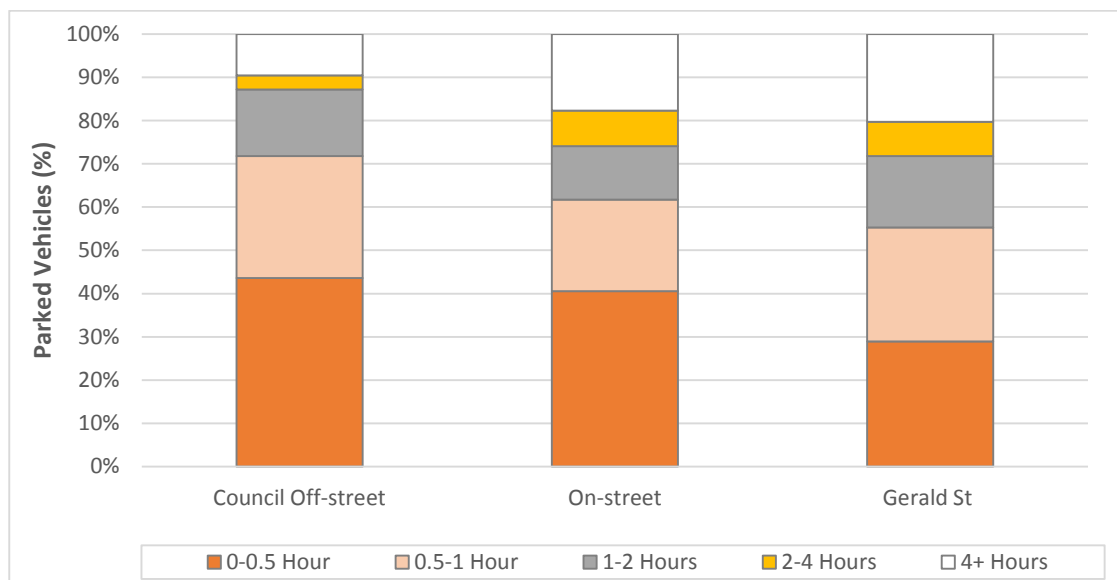


Figure 3.4 shows that the majority of vehicles parked in Council managed spaces in the study area stayed for less than 30 minutes. Long term parking for four or more hours is generally attributed to commuter parking. More than 50% of vehicles parked on Gerald Street for less than an hour. The type of parking demand by duration in Gerald Street (between Kildare Terrace and West Belt and including the two angle parking areas at the southwest and southeast corner of Gerald Street / Robert Street intersection) is shown in **Figure 3.5**. The 'future supply' shown in **Figure 3**, represents the number of parking spaces (33 spaces) that will be available in the area after the removal of parking on the north side of Gerald Street.

Figure 3.5 Type of Demand by Duration in Gerald Street (both sides)

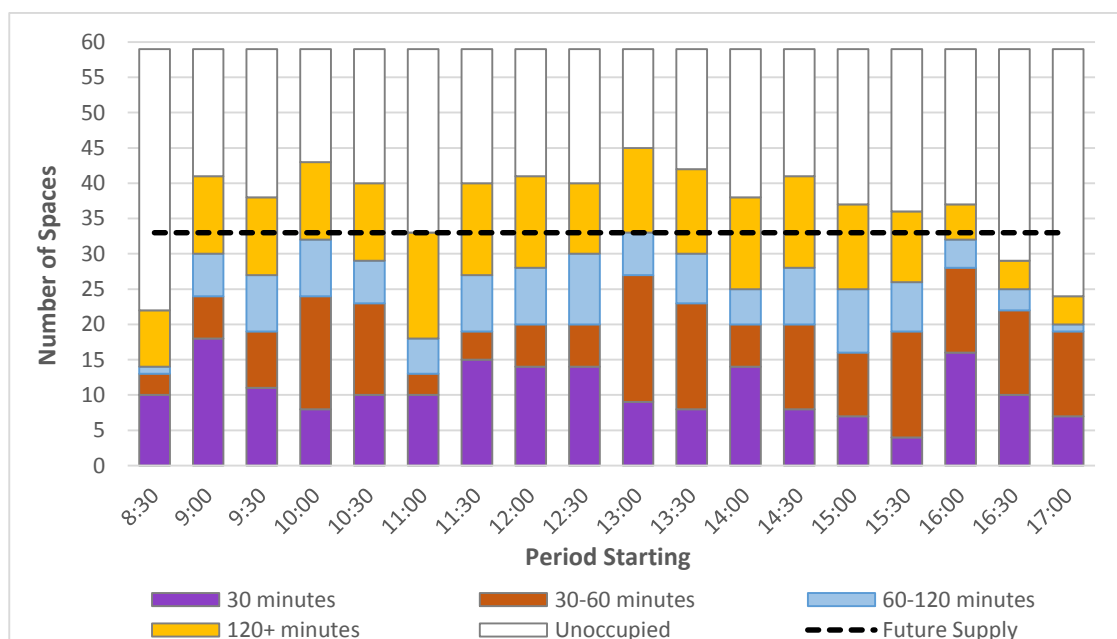


Figure 3.6 shows the existing type of demand by duration on the south side of Gerald Street between Kildare Terrace and West Belt including the two Council owned off-street parking areas at the southwest and southeast corner of Gerald Street / Robert Street intersection.

Figure 3.6 Type of Demand by Duration in Gerald Street (south side)

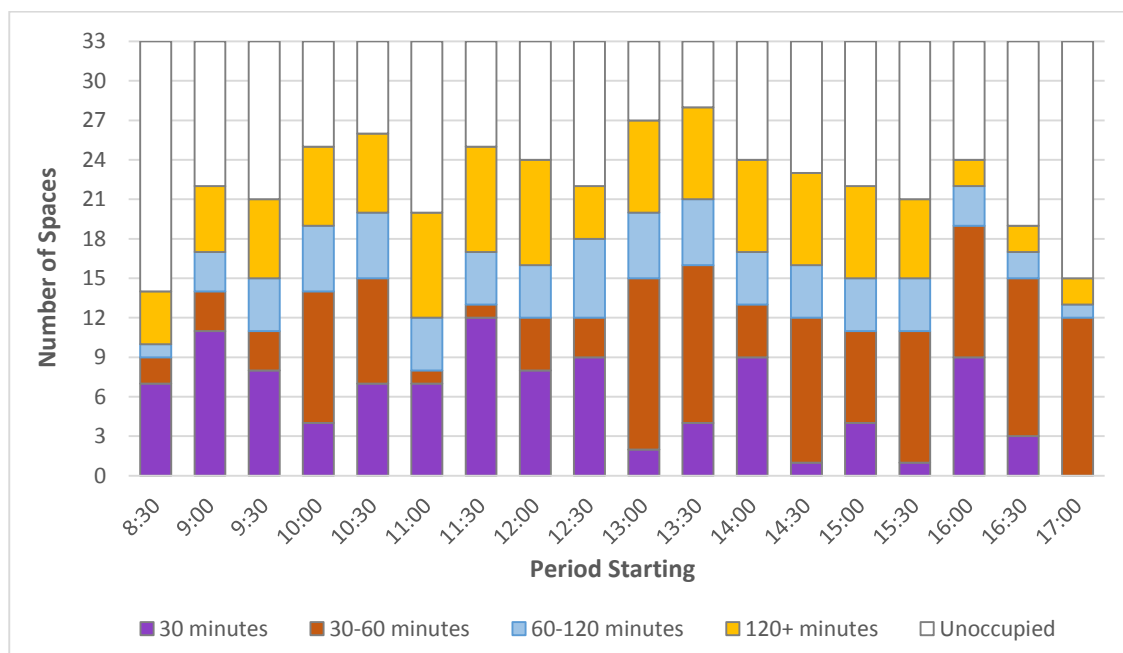


Figure 3.5 and **Figure 3.6** show ‘snapshots’ of how the parking spaces along Gerald Street were occupied for every thirty minute period throughout the survey. Each column represents a different 30 minute period. The purple portion of each column shows the percentage of spaces occupied by vehicles staying for less than 30 minutes, the red portion represents vehicles parking for 30 – 60 minutes, the blue portion represents spaces occupied by vehicles staying for 60 – 120 minutes and the gold portion shows the proportion of spaces occupied by vehicles parking for over 120 minutes.

Figure 3.5 shows that average parking occupancy during the peak parking period on Gerald Street (between 9am and 4:30pm) is 67% of the 59 available parking spaces. Throughout this period an average of 19% of all car parking spaces are occupied at any one time by vehicles staying for less than 30 minutes, 17% for 30-60 minutes, 12% for 60-120 minutes and 19% for over 120 minutes.

4. *Parking Management Methods*

This section outlines the potential parking management methods that could be utilised to meet the parking objectives of this plan. These methods include increasing parking supply, parking restrictions, parking search routes, parking regulation (District Plan), reducing parking demand (mode shift and pricing) and improving user information. Each topic is discussed followed by a recommendation which refers to a particular action or actions in Section 5.

4.1 *Parking Supply*

The parking survey showed that overall the parking occupancy is below the 80% to 85% optimum occupancy range. Occupancies higher than 85% create difficulties for motorists searching for a car parking space. However at peak times the occupancy in some Council owned off-street parking areas and in a private off-street car park (Lincoln Vale car park) was high, in other words it exceeded 80% occupancy during the peak 30-minute parking period (1pm-1.30pm). Meanwhile, a total of five on-street parking areas also exceeded 80% occupancy and another two on-street parking areas reached 80% occupancy during the peak 30-minute period.

It should be noted that the Lincoln Library off-street car park was only partially formed at the time of the survey and the remaining area of the car park was still under construction. The carpark currently provides 30 car parking spaces including four disabled parking spaces. The carpark will provide an additional 32 car parking spaces when fully formed and include the area to the west of the existing formed car park to West Belt. It is considered that the proposed reduction in on-street car parking spaces on Gerald Street (32 spaces) is offset by the additional off-street parking at the Lincoln Library in terms of overall supply at the time of the survey. The Library car park is located within reasonable walking distance of 200m to 300m to the existing businesses on Gerald Street. The construction of the off-street car park will be completed before the Gerald Street upgrade.

Parking supply has been increased in the Town Centre in recent years through the use of on-street angle parking. This is most evident on Robert Street south of Gerald Street, some of this (outside the preschool) is on both public and private land. Whilst angle parking enables more spaces to be provided on-street than parallel parking, it can give rise to safety issues so should be considered carefully in the future.

In the short term it appears the parking supply is sufficient for a typical weekday however with the population growth expected, and the increase in Town Centre destinations over time, increasing the parking supply will be required in the medium to long term.

Recommendations for Parking Supply

It is recommended that the existing parallel on-street parking spaces on Gerald Street within the Core Retail Area (East) are marked up (they are currently not marked as individual spaces). Marking these parking spaces is expected to result in more efficient use of space which will maximise the number of vehicles which can park in an area (Refer to **Action 1** in Section 5).

It is recommended that the potential to increase parking on the side streets is investigated. For example by converting existing parallel parking to angle parking this could improve the 'efficiency' of these areas. Modifications to on-street parking layouts are low-cost solutions that could be implemented in the short term.

It is generally appropriate to provide on-street parking on the lowest hierarchy road. For example Lyttelton Street and Maurice Street are classified as Access Road which is the lowest road classification within the Core Retail Area. Therefore, parking provision on these streets should be considered prior to the other higher level roads (Refer to **Action 6** in Section 5).

It is recommended that any opportunities to create shared public/private and shared private parking areas are pursued. For instance it was observed that the Church car park on the corner of Gerald Street and West Belt was empty on the day of the survey, there may be opportunities for Council and land owners to reach agreement on sharing car parks so that land in the Town Centre is used more efficiently (Refer to **Action 7** in Section 5).

It is recommended that the feasibility of further at-grade car parking be investigated as in the long term this is likely to be required to meet demand (Refer to **Action 9** in Section 5). A multi-storey parking building is unlikely to ever be feasible or desirable in Lincoln.

Council is currently investigating a land swap to increase car parking numbers in the Town Centre. Additional Council car parks could also be provided should land along Kildare Terrace become available for purchase.

Parking Restrictions

The majority of parking in the town centre has no time or user restrictions. This may not be optimising the available parking opportunities for the range of destinations and user types (e.g. customers, deliveries and staff).

Parking time restrictions should increase in a logical manner as spaces become further away from key destinations, in this case on Gerald Street. Visitors who are intending to stay for longer durations should be encouraged to park further from Gerald Street.

Results from the parking survey show that Gerald Street and some other side streets experience high occupancy rates and high turnover. Parking restrictions in these areas should reflect this demand by providing for short stay visitors. Allocating time restrictions will also assist in directing motorists with longer term parking needs away from Core Retail Area and consequently reduce the volume of circulating traffic.

The March 2015 parking survey shows that some longer duration parking (four hours or more) was observed in the Core Retail Area and it is economically undesirable to have low turnover of parking spaces in areas which have prime access to shops, i.e. Gerald Street. High parking occupancy rates do not necessarily translate directly to high numbers of customers.

Recommended Parking Restrictions

It is recommended in the short term that P60 (1 hour) restrictions are applied to Gerald Street (between Kildare Terrace and West Belt). This will enable short stay visitors to find a parking space during peak times. This change should be monitored and altered in conjunction with the town centre businesses over time as required (Refer to **Action 2** in Section 5).

It is recommended that P240 (4 hour) restrictions are applied to the majority of the side streets within the Core Retail Area. Parking on these streets beyond the Core Retail Area would cater for all day parking (Refer to **Action 2** in Section 5).

It is recommended that a P120 (2 hour) restriction is applied to the Lincoln Library car park to provide for longer stay visitors but not whole day or staff parking (Refer to **Action 2** in Section 5).

The car park at the corner of Gerald Street and Kildare Terrace is known to be used by bus users as an informal park and ride site. The Council is considering relocating this carpark to the rear of the Famous Grouse combining it with a private parking facility into a larger shared parking facility. It is considered that some unrestricted parking spaces should be provided in the car park area to cater for the park and ride demand in the short term. In the medium term there may be opportunities to provide a park and ride area outside of the Core Retail Area.

Over time as parking demand increases it may be necessary to review the parking time restrictions to ensure the parking opportunities are optimised. This can be determined through conducting regular parking surveys and engaging with businesses on a regular basis

Parking Enforcement

There is currently no need for parking enforcement as the majority of parking spaces within the Town Centre are not subject to a time or user restriction. Parking enforcement would need to be undertaken in conjunction with the introduction of parking restrictions to ensure the restrictions are effective (Refer to **Action 3** in Section 5).

4.2 Parking Search Routes

Existing directional signage for the Lincoln Town Centre directs all traffic to Gerald Street. This results in a high proportion of traffic attempting to find a car park in the most convenient area first, which leads to congestion and circulation in Gerald Street at peak times.

The 2015 parking survey shows that the Council owned Lincoln Library off-street parking area was underutilised compared to other Council owned off-street parking areas. This could be due to the location of the car park being the furthest away from the businesses on Gerald Street and the uncompleted walking connections provided between the car park and Gerald Street. However with better direction to drivers arriving in the town centre this car park could be better utilised.

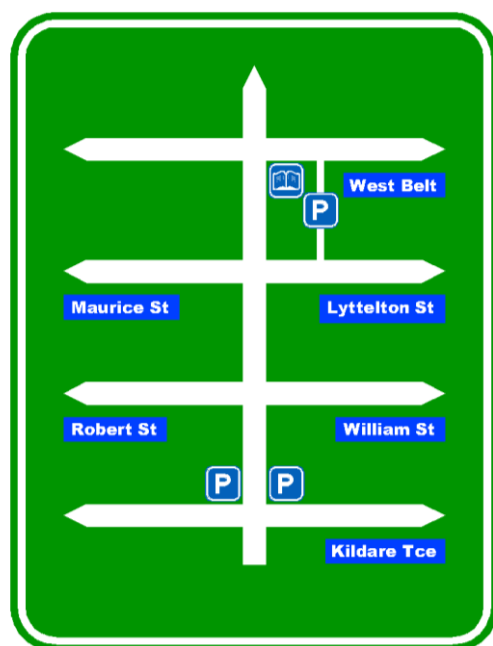
Signage should be implemented to direct motorists to appropriate parking areas, to reduce circulating traffic searching for a parking space, and to increase the occupancy of underutilised parking areas. The inclusion of the number of accessible spaces on parking signage should also be considered.

Recommended Parking Search Routes

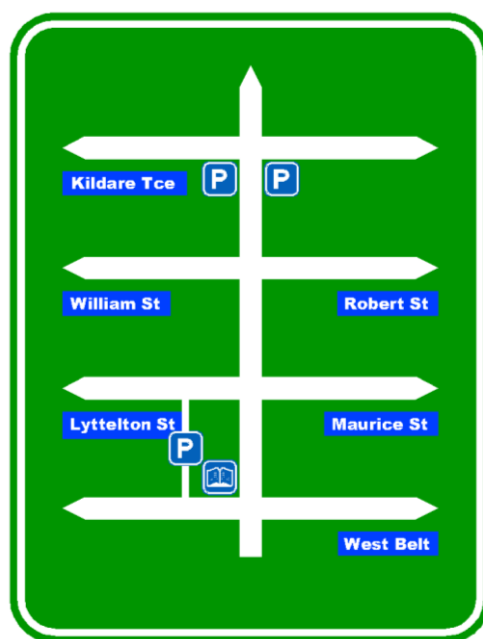
It is recommended that a parking search route is established for the current situation and this is revised over time as new parking is provided (Refer to **Action 4** in Section 5). An example is shown below, noting that signs at each approach to the town centre would be required.

Figure 4.1

Example of Search Route signage that could be applied in Lincoln



Westbound parking sign



Eastbound parking sign

4.3 Parking Planning

The Selwyn District Plan (District Plan) sets out objectives, policies and rules which require developments to provide on-site parking and sets out parking rates based on activity type. The Plan currently requires a slightly lower minimum parking provision within the Lincoln Business Zone Area.

The District Plan requires different design requirements for parking spaces by user class e.g. longer stay staff parking spaces can be narrower because of their lower turnover. This is considered a good approach to increase the capacity of parking areas.

Relevant rules and policies related to parking are reproduced in the following text:

- *Policy B2.1.6(a) Require activities to have adequate on-site carparking and loading facilities to minimise potential adverse effects from roadside parking and to require adequate on-site manoeuvring area to avoid the need for reversing onto or off roads particularly State Highways and Arterial Roads.*
- *Policy B2.1.6(b) Recognise that reductions from the required level of on-site car parking within Lincoln, Rolleston, Darfield, Prebbleton, Leeston and Southbridge, Business 1 zone Town Centres may individually or cumulatively impact on the future availability of on-street parking within the Business zone resulting in the overflow of parking into and adverse effects on surrounding residential streets.*
- *Policy B2.1.6(c) Encourage parking provision on alternative sites and/or travel via sustainable modes and/or provision of workplace or school travel management plans, where these reduce on-site car parking demand and have wider associated benefits, provided that such options are viable and enforceable.*
- *Policy B2.1.7 Provide for pedestrian safety, security, circulation and access within parking areas by considering the interaction of vehicle access and manoeuvring, circulation, loading and parking, with likely pedestrian routes onto the site, including for users of public transport, and between car and cycle parks, and building entrances.*
- *Rule 17.5.1.1 (Business Zone). The number of car parks provided complies with the relevant requirements for the activity as listed in Appendix E13.1.1, E13.1.2, E13.1.3 and E13.1.12.*

In town centre areas where Council provides on and off-street spaces, and visitors are often destined for several activities it makes sense to centralise parking provision rather than requiring each activity to provide parking separately. Requiring individual businesses to provide parking areas makes establishing a business in the town centre more expensive and is an inefficient use of land resources.

Recommended District Plan Improvements

To ensure that parking is provided in the most efficient way the District Plan review (Refer to **Action 8** in Section 5) should include the consideration of:

- A mechanism to allow and encourage shared parking facilities.
- Guidance on where parking should be located on a site with respect to buildings and the road frontage, as a function of zoning and activity type. For instance, sites that have buildings at the road frontage with parking at the rear tend to encourage more pedestrian activity than sites where the building is set back and parking is provided at the road frontage.

4.4 Reducing Parking Demand – Mode Shift

Lincoln provides end of trip facilities for cyclists in the form of cycle stands dispersed along Gerald Street and other locations within the town centre.

People travelling from within the Lincoln urban area have the choice of walking, cycling or taking the bus. Improving sustainable transport provisions could encourage mode shift and help to reduce parking demand. Sustainable transport provisions include:

- Route provisions between origin and destination of trip e.g. off road pathways, footpaths, cycle lanes and crossing facilities.
- End of trip and intermediate facilities e.g. secure cycle parking, pedestrian seating and drinking fountains.
- Improvements to public transport such as; more frequent bus services, better bus stop facilities and routes which service more origins and destinations.

Pedestrians currently have a choice of two formal zebra crossings on Gerald Street between Maurice Street and Kildare Terrace. Intermediate trip facilities for pedestrians are provided in the form of seating at regular intervals along Gerald Street.

There are two metro bus routes which service Lincoln; 80 Lincoln / Parklands and 820 Burnham / Lincoln via Rolleston. Buses on Route 80 are the most frequent and generally arrive and depart every 20- 30 minutes while buses on Route 820 generally arrive and depart every hour.

The proposed Gerald Street design includes separated cycle lanes which will improve cycle travel to, from and through the town centre. Pedestrian crossing improvements are also included in the proposed upgrade (Refer to **Action 11** to Section 5). The improvements will take place in the next 5-10 years.



Recommendations

It is recommended that the intermediate trip facilities, such as pedestrian seating, and cycle parking should extend from the Retail Core Area, through the town centre and into wider Lincoln to promote walking and cycling trips (Refer to **Action 10** in Section 5).

4.5 Reducing Parking Demand - Parking Pricing

There is currently no priced parking in the Selwyn District. Pricing parking is one of the most effective ways of reducing vehicle travel and parking demand. Reducing demand for parking is recognised as being one of the three principal methods of managing the demand / supply relationship, which is a focus of this Plan.

Pricing parking requires motorists to pay directly for the facilities being used rather than costs of providing, operating and managing the parking resource being passed on to the wider community through rates. However, implementing priced parking can be strongly opposed by the community and therefore difficult to implement.

The introduction of priced parking generally increases enforcement and administration costs for a local authority, although pay and display parking makes enforcement easier as enforcement officers must pass a vehicle only once to determine whether it is complying with the parking restrictions.

Priced parking tends to be more readily accepted by the community if:

- Pricing is perceived as a parking management tool to support the economic, environmental and social sustainability of the town centre, and not a revenue gathering mechanism for Council;
- Time can be purchased in small units i.e. consumers do not want to have to pay for a whole hour if they are only staying for 15 minutes;
- There are several available methods of payment e.g. coins, notes, text-to-park and credit card;
- Information is provided on parking availability, pricing and alternative travel options;
- Enforcement is courteous and fair;
- Special groups e.g. people with disabilities are provided with discounts or exemptions; and
- Revenue is used in a way which clearly benefits the community.

Research indicates that pricing for parking should be set so that occupancy rates reach a maximum of 85 – 90% in the most popular areas. If prices are too low circulating traffic in search of a park will not reduce, if prices are too high occupancy levels will be too low and may have adverse impacts on the vibrancy of the town centre.

The introduction of parking demand reduction mechanisms, such as pricing, must be preceded by improvements to alternative transport modes. Introducing priced parking will be ineffective if feasible alternative transport methods to the town centre are not available.

Recommendations for Parking Pricing

It is recommended that pricing not be considered for Lincoln in the short to medium term. The introduction of priced parking may be necessary in the long term to manage the town centre's parking assets and support the objectives of this Plan and the Lincoln Structure Plan (Refer to **Action 12** in Section 5).

4.6 User Information

There is generally very little information available to the town centre visitors about the location and availability of parking.

Recommendations for User Information

The provision of user information can be a useful tool to encourage visitors to park in appropriate locations and make better use of alternative modes. As a minimum, Council should provide a page on their website which shows the location of parking areas and parking restrictions within the town centre along with the location of accessible spaces, cycle stands and bus stops (Refer to **Action 5** in Section 5). Further information covering specific questions visitors may have, such as 'how to dispute a parking ticket', can be included to make the information as comprehensive as possible. A good example is the Nelson City Council website^[4].

Information could also be printed on brochures and communicated to the community through a variety of channels, including newspaper, radio, community groups and Council service centres. Additional information may need to be communicated to inform visitors about parking for local events or times of the year when parking demand is extraordinarily high.

It is also important that the key changes in the way parking is supplied and managed in the Lincoln Town Centre are communicated as they occur. Provision could be made within the recommended web page in order to achieve this.

4.7 Special Event Parking

During large events and peak parking times throughout the year parking overflow facilities may be required on areas such as empty sections or sports fields, these can be remote parking areas with associated shuttle services. Large events usually have an associated Temporary Traffic Management Plan and this should address matters such as parking.

[4]<http://nelson.govt.nz/services/transport/parking>

5. Action Plan

Table 5.1 collates the actions required for parking management in Lincoln based on Section 4 above.

Table 5.1 Action Plan for Parking Management in Lincoln

No.	Action
Short Term (0-2 years)	
1	Mark up the individual parking spaces on Gerald Street to better utilise the kerbside space.
2	Introduce parking restrictions as recommended in Section 4 and monitor the success of this prior to the Gerald Street upgrade.
3	Progressively introduce parking enforcement to support the parking restrictions.
4	Implement parking search route signage at either end of the Core Retail Area (East)
5	Develop a parking user information webpage within Council's website and print brochures which also provide this information for distribution to businesses within the town centre.
6	Investigate opportunities to increase on-street parking capacity in the side streets in the Core Retail Area (East) prior to the Gerald Street upgrade.
7	Investigate opportunities to increase off street parking supply in the Core Retail Area (East), such as the use of private car parks or communal car parks.
8	Review parking requirements in the District Plan.
Medium Term (2-3 years)	
9	Potentially implement a new off-street car parking area.
10	Extend provision of trip facilities for active transport modes, such cycle parking, seating areas and drinking fountains..
11	Include active transport provisions in the future intersection and street upgrades along Gerald Street
Long Term (4-10 years)	
12	Implement Priced Parking if optimal parking rates are being consistently exceeded with existing restrictions

Within 6 months of the implementation of any changes to parking in the Lincoln Town Centre, the effectiveness of the changes should be assessed. Additionally, parking demand and community satisfaction should be reassessed at least every three years to allow Council to determine whether stronger parking management techniques such as reducing the allowable parking duration or priced parking are required.



Appendix A

***Parking Management
Principles***

Parking Management Principles

The most common objective of a parking strategy is to better manage the parking supply and demand relationship to achieve a set of desired outcomes within a defined area. Increasing parking supply to satisfy demand will generally only perpetuate a community's reliance on the private vehicle.

Ideally, parking management strategies should be co-ordinated throughout a district or region rather than only applied in selected areas such as a town centre. However, it is acknowledged that the need for improved parking management tends to occur in specific areas, generally where the demand for parking is high, such as in town centres.

Litman (2006)⁵ suggests a three pronged approach to parking management which involves;

- Increasing parking facility efficiency,
- Reducing parking demand, and
- Supporting the adopted parking management methods.

The following text is informed by Litman (2006) and combined with information from other sources.

Increasing Parking Facility Efficiency

Increasing efficiency can involve increasing the capacity of existing parking facilities, reviewing parking standards and restrictions and implementing more shared parking.

Parking for new developments is generally provided in accordance with district planning rules that stipulate a minimum number of parking spaces based on the proposed activity. These rules are based on traffic engineering standards that have been in place in the last half century and were originally designed so that local councils would not need to be concerned about parking management⁶. Planning regulations generally mandate that developments provide for the 85th to 95th percentile demand meaning car parking is generally only utilised in full 5-15% of the time.

Minimum parking requirements generally lead to an oversupply because these are based on the demand for free parking at the development's peak hour and are required for each individual activity. This requirement for ample parking has contributed to urban sprawl and increased single occupant vehicle trips as parking is seen as a free resource, thereby undervaluing the land required.

Land beneath a car park would have a much higher value if it was not compulsory for it to be used as a car park. It could be used for more economically productive uses, e.g. retail, commercial or residential activity (Genter et al., (2008)). The flow on effects result in more efficient use of vehicles leading to less public money being required to expand road capacity and manage traffic. Land is a valuable commodity in a town centre and the cost of providing land which cannot generate income is ultimately projected on to consumers through increased product prices.

Removing minimum parking requirements gives the freedom to developers to determine the marginal value of providing car parks. The market is therefore allowed to price out unnecessary demand in favour of more efficient land uses. Fees can be required in-lieu of providing private off-street parking areas, these can then be used to fund shared public parking facilities.

⁵Litman, T (2006) Parking Management Best Practice, American Planning Association

⁶Genter, JA. Schmitt, L. Donovan, S. (2008) The Missing Link: Parking as the integration of transportation and land use, IPENZ Transportation Conference paper

Shared parking facilities serve multiple destinations, public parking facilities can be considered shared parking facilities. This is an efficient way to allocate land for parking as different activities peak at different times. A good example of activities which peak at different times are banks and restaurants. Restaurants open in the evenings around the time when banks are closing. Other more similar activities such as different types of retail can also peak at different times.

In town centres people are able to link their trips i.e. visit more than one destination. District Plans should consider this when setting out parking requirements

The capacity of parking facilities can be increased through optimising parking layouts. Where sufficient road width is available angle parking can provide more spaces than parallel parking. A portion of spaces can be reduced in size and allocated for compact vehicles and motorcycles. Compact vehicles require about 20% less space than full sized vehicles.

On-street parking is generally more efficient than off-street parking due to its close proximity to multiple locations. On-street spaces require less area per space as there is no need to provide access aisles which are required in off-street parking areas.

Low turnover spaces used by familiar users such as employees can be smaller than high turnover visitor spaces. Separating a car parking area by user type category can create additional capacity. Parking dimensions set out in the joint Australian / New Zealand Standard for off-street car parking⁷ (AS/NZS 2890.1:2004) are defined by user type ranging from employees (user class 1) to short term high turnover (user class 3A). User classifications and associated parking space dimensions are reproduced in **Table A1**.

Table A1 AS/NZS 2890.1:2004 Classification of Off-street Car Parking Facilities

User Class	Required Door Opening	Required Aisle Width	Examples of User Class
1	Front door, first stop	Minimum for single manoeuvre entry and exit	Employee and commuter parking (generally all day parking)
1A	Front door, first stop	Three-point turn entry and exit into 900 parking spaces only, otherwise as for User Class 1	Residential, domestic and employee parking
2	Full opening, all doors	Minimum for single manoeuvre entry and exit	Long term city and town centre parking, sports facilities and hotels
3	Full opening, all doors	Minimum for single manoeuvre entry and exit	Short term city and town centre parking, hospitals and medical centres
3A	Full opening, all doors	Additional allowance above minimum single manoeuvre width to facilitate entry and exit	Short term high turnover parking at shopping centres
4	As specified in AS/NZS 2809.6:2009		Parking for people with disabilities

⁷ Standards New Zealand (2004) Parking Facilities Part1: Off-street car parking AS/NZS 2890.1, Australian/New Zealand Standard

Table A2 AS/NZS
2890.1:2004
Parking Space
Dimensions

Parking Angle (degrees)	User Class	Aisle Width (m)	Stall Width (m)	Stall Depth (m)	Overhang (m)
0 (parallel)	All	3.0	6.3	5.4	Not Applicable
		3.3	6.4	5.4	
		3.6	6.2	5.4	
30	1, 1A	3.1	2.1	4.1	0.6
	2	3.0	2.3	4.1	0.6
	3	2.9	2.5	4.1	0.6
	3A	3.45	2.5	4.1	0.6
45	1, 1A	3.9	2.4	4.8	0.6
	2	3.7	2.5	4.8	0.6
	3	3.5	2.6	4.8	0.6
	3A	4.2	2.6	4.8	0.6
60	1, 1A	4.9	2.4	5.1	0.6
	2	4.6	2.5	5.1	0.6
	3	4.3	2.6	5.1	0.6
	3A	5.1	2.6	5.1	0.6
90	1	6.2	2.4	4.8	0.6
	1A	5.8	2.4	4.8	0.6
	2	5.8	2.5	4.8	0.6
	3	5.8	2.6	4.8	0.6
	3A	6.6	2.6	4.8	0.6
		6.2	2.7		

Parking restrictions have the ability to increase parking availability and convenience for higher priority users e.g. providing spaces for people with disabilities increases supply for these users. Providing short time restrictions increases availability for short stay visitors.

Limiting parking time is a common form of parking management. Shorter duration parking increases turnover but limits the activities which can be performed while a vehicle is parked in a particular space. Austroads Guide to Traffic Management Part 11 – Parking (2008) (Austroads) acknowledges that while higher turnover makes the most sought after spaces available to the greatest number of vehicles it also results in increases traffic flows. This should be considered when implementing parking restrictions.

The activities which are serviced by a parking space need to be taken in to account when applying time restrictions. Litman (2006) provides a general guide for implementing suitable parking restrictions for different activities as shown in **Table A3**.

Table A3 Guide for Implementing Time Restrictions

Time Period	Suitable Applications	Examples
Very Short 3 - 10 minutes	Passenger drop-offs and pick-ups	Busy loading areas such as outside schools and hospitals
Short 15 - 30 minutes	Quick errands	Most convenient spaces outside post offices and banks
Medium 30 - 120 minutes	Longer errands	Outside shops and restaurants
Long 3 - 4 hours	Prevent commuter parking	In business districts and neighbouring residential areas
Very Long 8+ hours	Commuter parking	Less convenient spaces within a business district

Austrroads suggests that a time restriction of up to 15 minutes only allows motorists to visit one destination while 30 minutes provides enough time for two or three shops to be visited.

Austrroads states that “Only the shortest stay parking requirements for private motor vehicles should be permitted on inner-city streets. To encourage medium-stay and longer-stay parking to be satisfied in off-street car parks, time restrictions for kerbside parking should generally be short (perhaps, less than 30 minutes maximum) and enforcement should be actively applied... Where parking demand exceeds supply, time limits can be imposed to increase parking turnover and hence allow more people to use highly sought after parking spaces.”

Reducing Parking Demand

Parking demand is reduced if fewer vehicles travel to a destination. This can be achieved through a technique known as ‘travel demand management’.

Travel demand management is a general approach which deals with the efficiency of the transport system as a whole, rather than just parking demand management. Travel demand management can involve directions from regional or central Government, such as increasing fuel taxes or vehicle registration prices, down to Local Government initiatives such as improving provision for public and active transport or implementing parking pricing.

Improving active transport provisions encourages mode shift and therefore helps to reduce parking demand. Active transport facilities include:

- Provisions for the between origin and destination part of the trip e.g. off road pathways, footpaths, cycle lanes and crossing facilities.
- End of trip and Intermediate facilities e.g. secure cycle parking, pedestrian seating and drinking fountains.

Improvements to public transport such as; more frequent bus opportunities, better bus stop facilities and routes which service more origins and destinations can also assist with modal shift.

Pricing parking is one of the most effective ways of reducing vehicle travel and parking demand. Implementing pricing methods means that motorists pay directly for the facilities used rather than costs being spread over all ratepayers or customers.

Revenue from parking pricing can be allocated to activities that directly benefit visitors to and businesses and residents within the area. These could include subsidising public transport, improving active transport facilities or providing new community services.

It is recognised parking pricing increases enforcement and administration costs and motorist inconvenience as they need to go through the additional process of paying for parking. However priced parking is easier to enforce than time restricted parking as enforcement officers must pass the vehicle only once to determine whether it is complying with the parking restrictions.

According to Austroads, prices in the most popular areas should be set so that occupancy rates reach a maximum of 85 – 90%. If prices are too low circulating traffic in search of a park will not reduce, if prices are too high occupancy levels will be low.

It can be politically difficult to implement priced parking. Priced parking tends to be more readily accepted if;

- Time can be purchased in small units i.e. consumers do not want to have to pay for a whole hour if they are only staying for 15 minutes,
- There are several available methods of payment e.g. coins, notes, text-to-park and credit card,
- Information is provided on parking availability, pricing and alternative travel options,
- Enforcement is courteous and fair,
- Special groups e.g. people with disabilities are provided with discounts or exemptions, and
- Revenue is used in a way which clearly benefits the community.

Priced parking can result in consumers travelling to an alternative location to carry out their errands. This is an undesirable outcome and must be taken in to consideration when applying parking fees. It is also important to note that priced parking will not deter all users; a lot of visitors will continue to park as usual and pay the required fee.

Reduced parking demand has other associated benefits. These benefits can include; reduced congestion, reduced pollution, increased road safety, improved community liveability and improved travel options.

The timing of implementing parking demand reduction strategies is important. Austroads states that it makes little sense to apply constraints to traffic within a town centre if alternative transport options are not provided.

Supporting Adopted Method

Methods adopted to decrease parking demand in a particular area can be supported by providing comprehensive user information, prudent enforcement methods and parking overflow management plans.

User information could include information for travellers relating to alternative parking opportunities, time restrictions, pricing and alternative travel options. This information should be provided in places which are accessible to a range of users e.g. on signs, a website, brochures and if applicable electronic guide signs. Practical information should be readily available which details specifics such as what motorists can use to pay for parking e.g. only coins.

Websites can be used to give transparency to parking management approaches by describing parking planning, indicating prices and showing parking locations. Websites can also provide answers to common parking questions.

Local event announcements and newspaper advertisements can suggest the most optimal parking location which provides access to and sufficient capacity for the activity. Key destinations such as community centres and libraries can also produce similar documents.

Parking overflow can occur during large events and peak parking times throughout the year. Systems should be put in place to deal with anticipated overflow incidents such as; provision of remote parking areas with associated shuttle services, allowing cars to park on grassed areas in special circumstances, encouraging people to use sustainable transport modes and requiring large events to have plans in place to deal with these situations.

To be effective the enforcement process should be efficient, considerate and fair. Parking enforcement officers should be perceived as helpful community ambassadors and provide tourist information and maps. Adequate training and clear guidelines for parking enforcement will assist in achieving this image.

Spillover into residential areas is a potential outcome of implementing priced parking. This should be monitored and dealt with when necessary. One possible method of dealing with spillover is designating a portion of on-street parking as 'residents only' during working hours and requiring any vehicles parked in these spaces to display permits.

It is important to have systems in place for motorists who do not pay their fines such as towing, wheel clamping or the use of collection agencies. Technology is available which allows enforcement officers to keep track of vehicle registration plates which are frequently overstaying.

It may also be appropriate to have exemptions to parking regulations in place. These could include requiring someone in breach of parking restrictions for the first time to fill out a survey, explaining why they overstayed or didn't pay, instead of paying a fine. This would help to gather information on the convenience of the parking system for its users and whether there is sufficient information available.

Kerbside parking policy

The allocation of kerbside space can be a contentious issue and have a significant effect on the surrounding environment. On-street parking is most appropriate on lower order roads with low traffic speeds which provide for access, while parking on higher order roads with the main purpose of providing for movement can cause safety and capacity issues.

Kerbside space can be used for many purposes including:

- Very Short Term (P3-P15 On Street Parking)
- Short Term (P30-P60) On Street Parking
- Medium Term (P120) On Street Parking
- Long Term Unrestricted (commuter) On Street Parking
- Residents Parking
- Accessible Parking
- Loading Zones
- Taxi Stands
- Bus Stops
- Bus Lanes
- Cycle Lanes
- Motorcycles and Scooter Parking
- No Stopping

No stopping restrictions should be applied where parked vehicles would create a safety hazard or where there is insufficient width to accommodate parked vehicles within the carriageway.

The guidelines contained in the tables below are intended to be applied in a flexible manner while considering the vision and objectives of the Parking Management Strategy. The guidelines apply to on-street kerbside space, but the principles are equally applicable to public off-street car parking areas. In Tables B1, B2 and B3 any reference to 'normal' parking spaces includes all time restricted and unrestricted spaces but does not include disability spaces, loading zones, bus stops or taxi stands.

Short Stay and Medium Stay visitors should be prioritised on Gerald Street in this area by applying time restrictions up to a maximum of 120 minutes. This creates a high level of parking turnover and maximises the number of people that can park on Gerald Street in the area during a business day.

Table A4 Hierarchy of Kerbside Use in the Retail Core Area

Priority	Kerbside Lane Use	Comments
Highest	Accessible Parking	It is important to provide a sufficient number of accessible spaces throughout the Retail Core Area to provide access to key facilities for mobility impaired people.
	Loading Zones	It is fundamental to business operation in the High Street Precinct that all businesses have access to a loading zone. Provision for loading zones is only required where activities cannot be serviced from the rear or other off-street location.
	Short Term Parking	Around 90% of all 'normal' parking spaces within the Retail Core Area should have Short Term time restrictions
	Very Short Term Parking	Some localised provision of very short term parking will be appropriate. These should only be applied outside of activities which are considered important community facilities, such as the Post Office and pharmacies. Very short term parking should not exceed more than four spaces in any block on each side of the street. Very short term restrictions are not appropriate if the activity for which they are primarily provided has a private off-street customer car park.
	Bus Stops	Kerbside space should be allocated for bus stops in the Retail Core Area.
	Cycle Lanes	The speed environment should be sufficiently slow to not require cycle lanes.
Lowest	Long Term Parking	Long term parking is not appropriate in the Retail Core Area.
	Residents Parking	Provision for residential parking is not appropriate in the Retail Core Area
	Bus Lanes	Bus lanes are not appropriate in the Retail Core Area.

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