

# Technical Services Reports


**Committee Consideration – 9 July 2013**  
**Council Resolution – 23 July 2013**

## Table of Contents

Item No.	Page No.
TS09.13	
Black Spot Project 2012/2013 – Stirling Highway & Vincent Street, Nedlands .....	1
TS10.13	
Parking Restrictions Surrounding Stirling Highway .....	4

**TS09.13**

**Black Spot Project 2012/2013 – Stirling Highway & Vincent Street, Nedlands**

<b>Committee</b>	9 July 2013
<b>Council</b>	23 July 2013
<b>Applicant</b>	City of Nedlands
<b>Officer</b>	Wayne Mo – Design Engineer
<b>Director</b>	Mark Goodlet – Director Technical Services
<b>Director Signature</b>	
<b>File Reference</b>	ST6-09, TEC/009-03, D11/16109
<b>Previous Item</b>	Nil.

**Executive Summary**

The purpose of this report is to seek approval for the construction of an approved Black Spot project on Stirling Highway, near Vincent Street, Nedlands

**Recommendation to Committee**

**Council approves the construction of the traffic island on Stirling Highway as approved under the Main Roads WA Black Spot Program (refer to attachment 2).**

**Strategic Plan**

KFA: Transport

**Background**

The section of Stirling Highway adjacent to Vincent Street was identified as a black spot for 2012/2013 in which key warrants were met for the requirements for State funding.

The approved and audited treatment proposed is to relocate the pedestrian refuge island to allow for additional vehicle storage on the painted median for vehicle stacking to turn right into Broome Street.

**Key Relevant Previous Council Decisions:**

This project was included in the 2012/13 financial year budget, adopted 14 June 2012. This budgeted amount has been set aside and carried forward into the 2013/14 financial year.

**Discussion**

The treatment proposed serves several key purposes which maximizes benefits to the community

1. Hazard removal – as part of the works, a redundant traffic island on Stirling Highway will be removed at the Louise Street end. Removing this will also allow vehicles to stack waiting to turn right into Louise street.
2. Painted intersection formalization – the painted median at the intersections of Broome Street and Vincent Street will be channelized better with new line marking to reflect current design standards.
3. The new location of the island will be at a safer location, adjacent to an existing street light and mid block between intersections. This will provide a safer pedestrian crossing at night.

Crash patterns indicate that there have been a high number of rear end crashes on Stirling Highway and the approved plan is designed to improve safety and reduce crashes

**Consultation**

Required by legislation:	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Required by City of Nedlands policy:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

Consultation was undertaken in accordance with Council’s Community Engagement Policy, by sending letters out to surrounding businesses and residents and putting the information on the City’s website. The consultation period was from 8 May to 7 June 2013. No responses were received back regarding the proposed intersection upgrade.

**Legislation / Policy**

*Local Government Act 1995*

**Budget/Financial Implications**

Within current approved budget:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Requires further budget consideration:	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

Original total project cost: \$30,000  
 Cost to black spot program (2/3): \$20,000 - (approved)  
 Cost to Council (1/3): \$10,000 – budget approved

Total revised project cost:	\$14,253
Total cost to black spot program	\$9,502– (approved)
Total revised cost to Council	\$4,751

## **Risk Management**

This project is an approved Main Roads of Western Australia black spot project which has been audited and meets the key warrants to receive funding. The countermeasure is a cost effective treatment designed to reduce crashes at the site.

Should Council not approve the project, the risk is that crashes will continue to occur at this location and Council could be liable for any further crashes.


## **Conclusion**

The proposed treatment is a cost effective and black spot approved treatment to reduce crashes at this location. It is recommended that Council agree to undertake the works.

## **Attachments**

1. Location Plan
2. D13/10251 – MRWA - Approved Lines and Signs – Stirling Highway / Vincent Street

**TS10.13****Parking Restrictions Surrounding Stirling Highway**

<b>Committee</b>	9 July 2013
<b>Council</b>	23 July 2013
<b>Applicant</b>	City of Nedlands
<b>Officer</b>	
<b>Director</b>	Mark Goodlet – Director Technical Services
<b>Director Signature</b>	
<b>File Reference</b>	TPN/152
<b>Previous Item</b>	2011 Council Minutes – 13 December – T18.11 2011 Traffic Management Committee – 5 April – Item 7.6 2011 Traffic Management Committee – 1 March – Item 7.5

**Executive Summary**

The purpose of this report is to report community feedback and Administration investigation and to obtain Council's approval to implement permanent parking restrictions on surrounding streets North and South of Stirling Highway, Nedlands.

**Recommendation to Committee****Council:**

1. Approves the implementation of permanent parking restrictions as per the trial restrictions (Attachment 1);
2. Approved the implementation of additional parking restrictions to Bruce Street, Archdeacon Street, Tyrell Street, Thomas Street and Webster Street (refer to attachment 2);
3. Approves the implementation of additional parking bays near the intersections of Stirling Highway as part of the ongoing capital roads program;
4. Agrees to support line marking delineation for residential driveways near parking generating facilities in accordance with the Chief Executive Officer's existing delegated traffic management authority;
5. Agrees to create a reserve fund entitled 'Cash in Lieu of Parking' for setting aside of these funds from development applications where the Council has approved cash in lieu of parking;

6. **Agrees to provide in-principle support for some four hour parking near businesses on Stirling Highway, subject to consultation, design and in accordance with the Chief Executive Officer's existing delegated traffic management authority and subject to budget approval; and**
7. **Authorises the amendment of the short term parking on Weld St, near Stirling Highway, from half an hour to one hour parking restriction.**

## **Strategic Plan**

KFA: Natural and Built Environment

KFA: Transport

## **Background**

The City has received a large number of complaints over recent years from residents, community groups, businesses and proprietors regarding parking around Stirling Highway, Nedlands.

In this period, there has been an influx of long term parking within residential streets and the City has received many complaints from residents who feel that the level of amenity in local streets is lost.

Stirling Highway is a busy environment that has mixed land use consisting of residential properties and commercial buildings. It is approximately 2200 metres in length between the boundaries of Loch Street to Hampden Road / Broadway, Nedlands. There are 19 streets that intersect Stirling Highway to the north and 18 streets to the south.

In November 2012 the City commenced the parking trial which imposed parking restrictions along side streets north and south of Stirling Highway through a combination of:

- Two and three hour parking limits;
- "No Parking" Monday – Friday; and
- 8 am – 5 pm restricted parking Monday to Friday

The objectives of the trial were to:

- Increase the functionality of the parking by discouraging all day parking;
- Create turnover of bays so that a greater number of users can access them; and
- Provide better amenity for residents in the area who are largely affected by long term parking.

During the trial period, Administration collected photographic evidence of each street at various times during the day, conducted traffic counts, counts of parked vehicles and carried out a trend analysis of the parking numbers (Attachment 3).

In March / April 2013 the City conducted community consultation to collect feedback on the imposed parking restrictions (Attachment 4).

### **Key Relevant Previous Council Decisions:**

13 December 2011 – Council Meeting

Council:

1. Approved the parking restrictions surrounding Stirling Highway, Nedlands (refer to attachment 1) for a six (6) month trial period; and
2. Requests Administration report to Council after the six (6) month trial period, the feedback received from the community.

### **Discussion**

Following the collection of the photographic records, analysis of actual parking numbers and assessment of the responses gathered from the consultation process, it is apparent that the Stirling Highway parking trial has been largely successful. It has achieved its aims in terms of:

- Increasing the functionality of the parking by discouraging all day parking;
- Creating a turnover of bays so that a greater number of users can access them; and
- Provide better amenity for residents in the area who are primarily affected by long term parking.

The photographic record, as well as the counts and trend analysis demonstrate the parking in the residential areas is generally quiet and functional. Having achieved its aims it is recommended that the parking trial be made permanent.

### **Photographic record**

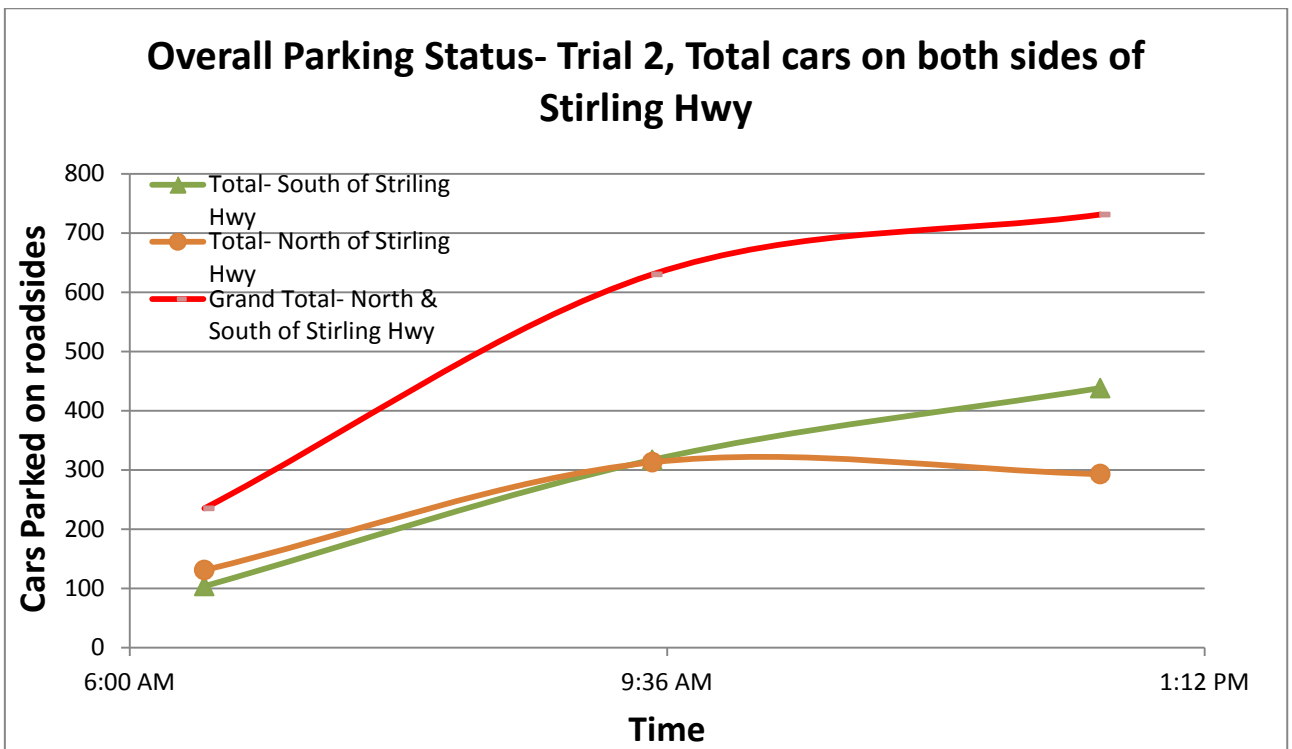
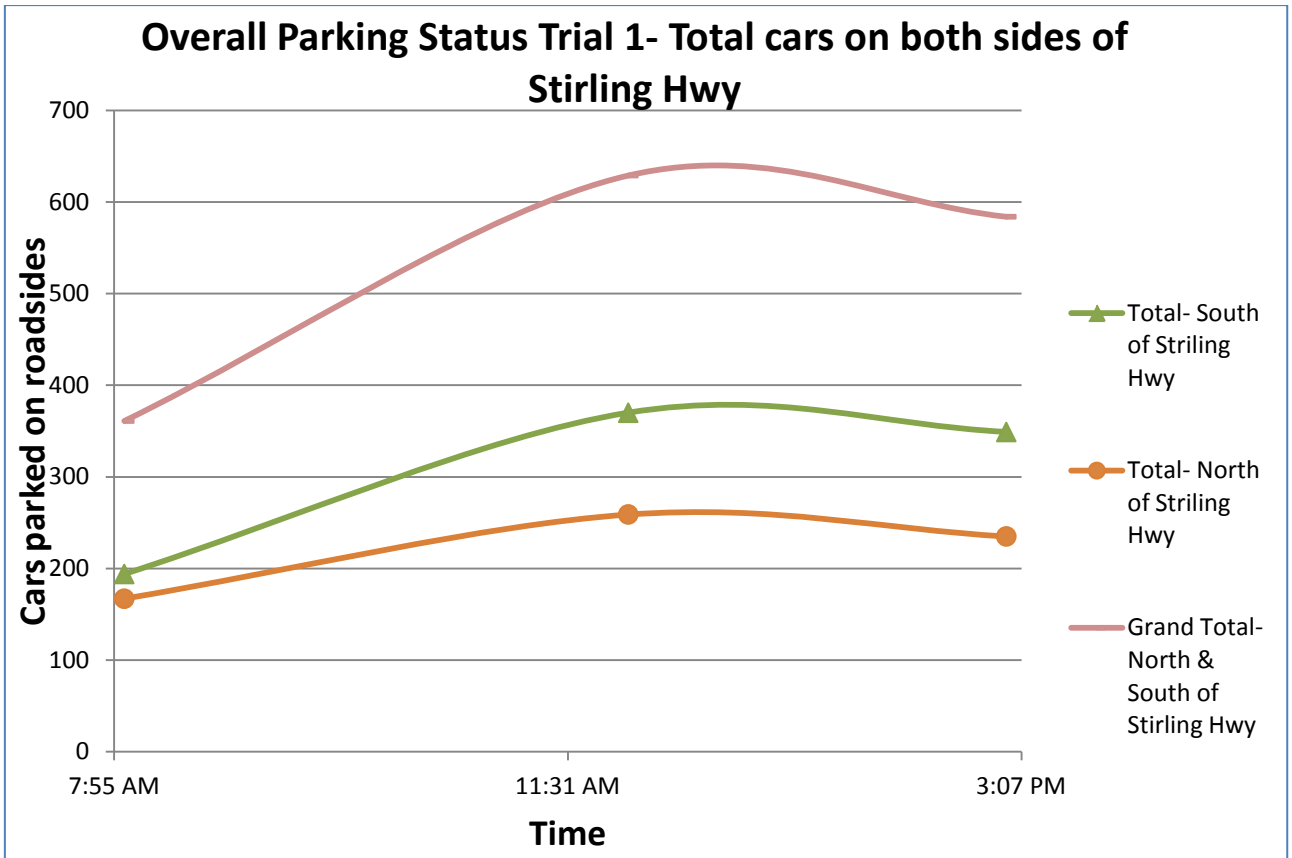
A photographic record of each street was taken during working hours, during the University of WA semester period to verify the parking in the residential streets and near the intersections with Stirling Highway. This information was used to correlate to other gathered information. This record is available by referring to Attachment 5 and following the instructions to Intramaps on the City's website. There were over 200 photographs taken for the assessment, therefore it was deemed impractical to print all of these photos.

### **Traffic counts and trend analysis**

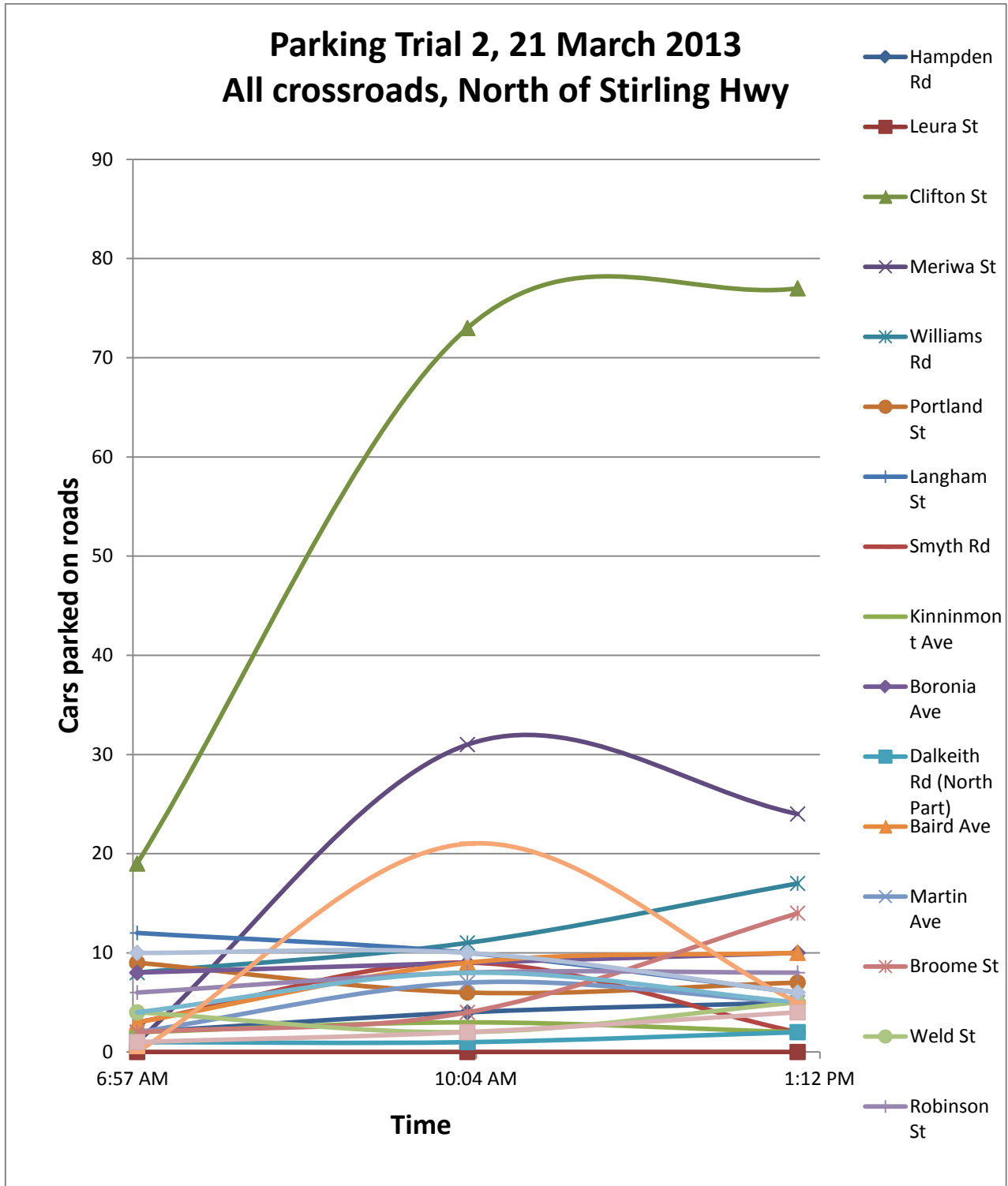
Traffic counts were conducted in May 2012 while the University of WA was in session for all of the streets within two blocks of Stirling Highway. The numbers of parked cars in each street were counted on two separate occasions at three different times of the day. The results were collated and trends examined to when and where the parking problems were occurring and

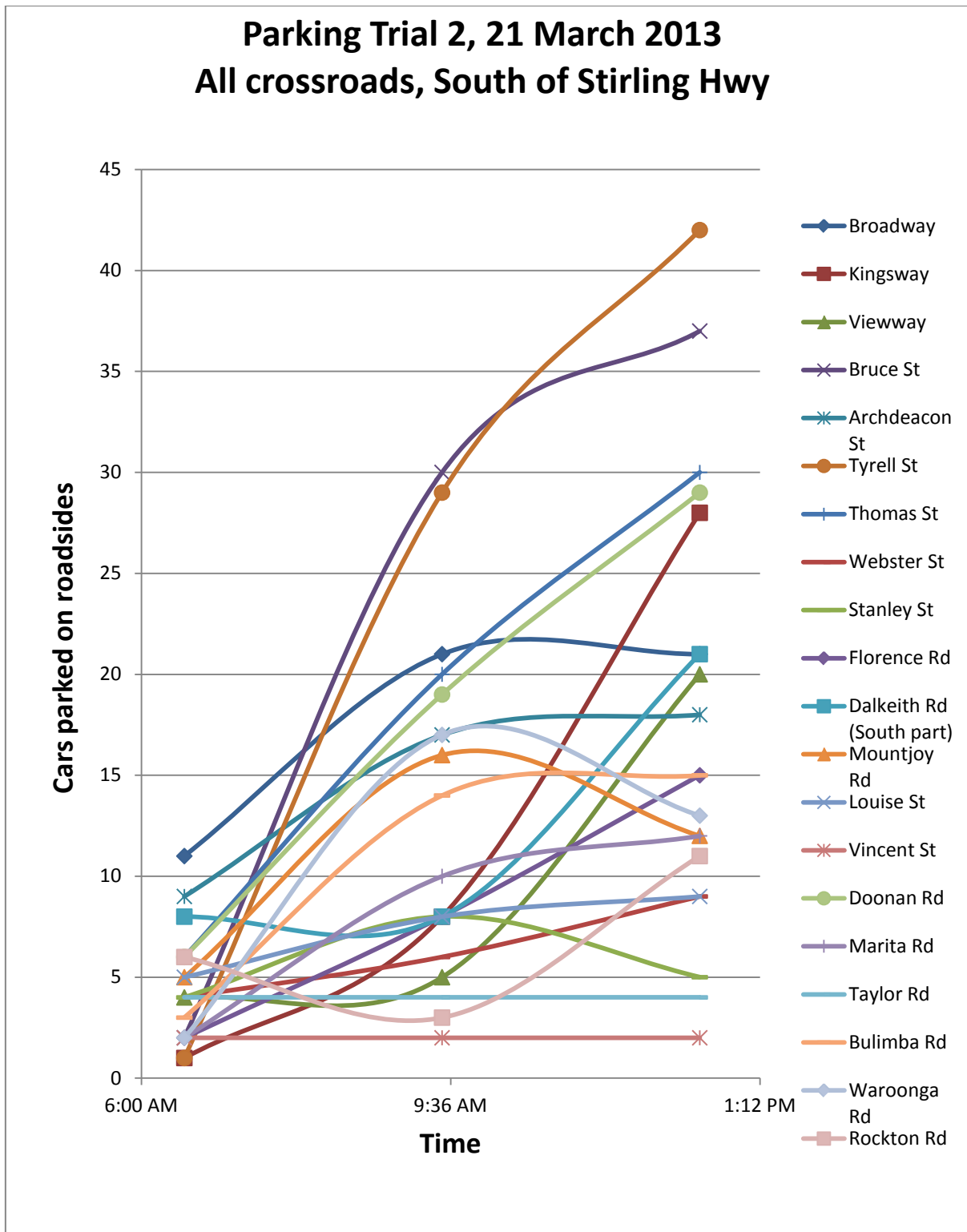
to cross reference this data against the photographic evidence and community consultation.

The graphs below provide a snapshot of the feature data and trends.









The data count and trend analysis shows the following:

- Kerbside parking on busy streets starts early, around 6am;
- Street parking increases with time and declines towards the end of business
- Streets to the south of Stirling Hwy are more densely parked than elsewhere;

- Ample street parking is available on the western streets and to a degree the central streets, but becomes more dense to the east; and
- Businesses appear to have adequate parking with one or two hotspots –including Boronia Street and Dalkeith Road.

### **Results of Analysis**

The information collected by Administration and the consultation process indicates however, that there are two main parking hot spots within the City:

- The South East end of Stirling Highway (Bruce Street to Webster Street); and
- Areas close to Stirling Highway.

Apart from the above Boronia Avenue and Dalkeith Road, cars are parking in the residential areas as ongoing isolated problems. Weld Street also has a parking anomaly with an easy solution. Each of these issues is discussed in this report.

Recommended solutions are to:

- Extend the parking restrictions (no parking on one side and 3 hour parking on the other) between Bruce Street and Webster Street, back to Melvista Avenue;
- Investigate additional angled parking near Stirling Highway intersections to increase parking availability for businesses;
- Add some four hour parking bays near Stirling Highway intersections to provide a mix of short term and longer stay parking bays for business purposes.
- As the City can collect cash in lieu of parking that a reserve fund be established so that the provision of on-street parking can be increased for businesses.
- Line marking to increase safety for residents entering and exiting their driveways where they are near parking generating facilities; and
- Amend the half hour bays in Weld Street to one hour bays.

### **Enforcement**

A significant response from the community about the parking issues was the desire to see an increased use of enforcement. The rangers' services are currently 7am to 7pm Monday to Friday and weekends on an ad hoc basis. The current parking restrictions around the City are Monday to Friday as there is no need for timed parking over the weekend. Apart from sporting events on a Saturday/Sunday, weekend patrols reveal a very quiet City.

The City has recently boosted its enforcement capacity through the employment of another ranger dedicated to parking enforcement, which has significantly boosted parking enforcement. It is considered that this matter is now in hand, however the City continues to deploy rangers to specific parking trouble spots as required.

### **Unauthorized Private Businesses Parking**

There have been complaints from businesses that some vehicles park for extended periods in their private bays, who are not customers. The City already provides a service to businesses to deal with this. They are able to purchase signage from the City and call Rangers with details of vehicles which are parked on the property without consent. Rangers will attend and vehicles are then issued with an infringement.

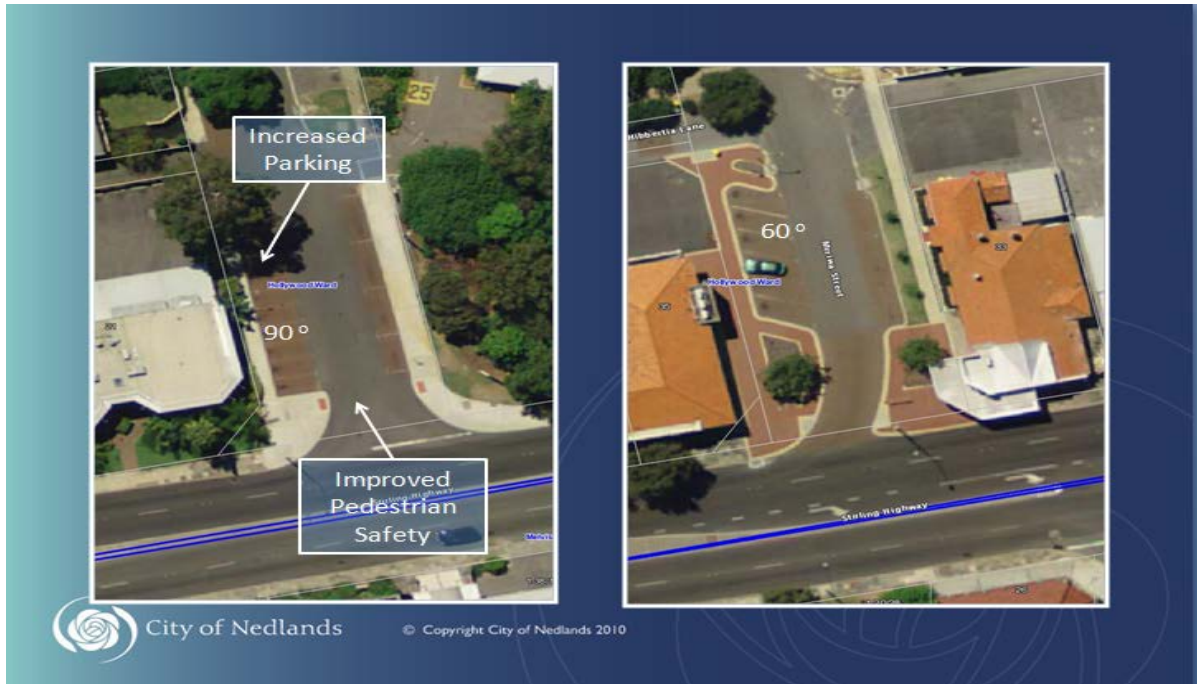
### **Extending Parking Restrictions to Melvista Avenue on South Eastern Area Streets**

Bruce Street to Webster Street currently have parking restrictions up to Edward Street, however, following the consultation process and assessment, it is proposed that the restrictions (no parking on one side and 3 hour parking on the other) be extended south to Melvista Avenue.

This area is prone to all day parkers due to its close proximity to the university. The feedback received from residents on these streets which had parking restrictions implemented during the trial have been positive and indicated that the parking restrictions were a success. Residents on these streets, south of Edward Street (unrestricted parking) gave feedback that on-street parking had increased and was causing safety issues when entering and exiting their driveways or trying to navigate down the road in-between parked cars. Many feedback responses requested the parking restrictions be extended south of Edward Street.

### **Angled Parking near Stirling Highway Intersections**

A clear trend which came from the community consultation is that there is a lack of available parking for businesses along Stirling Highway. An option Administration would like to investigate is the implementation of angled parking bays at the intersection along Stirling Highway. As per the pictures below this enables maximum parking availability, as well as improving both pedestrian and traffic safety.



### Line Marking around Driveways

Line marking to delineate the edge of driveways is a simple and effective solution to reduce the risk for residents entering and exiting their driveways while cars are parked either side. As per the photo below, this method is currently used in the City of Nedlands to prevent people parking so close to driveways that it becomes a hazard entering and exiting.

It is important that specific criteria be set for this however, as it could lead to a random proliferation of line marking. Warrants include close proximity to a vehicle destination node, for example a shopping area or school, where there may a series of driveways that need delineation. It would not be deemed appropriated to install driveway delineation linemarking in a isolated residential street for instance and City officers experienced in these matters would be used to determine locations.

It is proposed that we install this line marking around driveways on Bruce Street to Webster Street, on the side of the road with parking restrictions only.

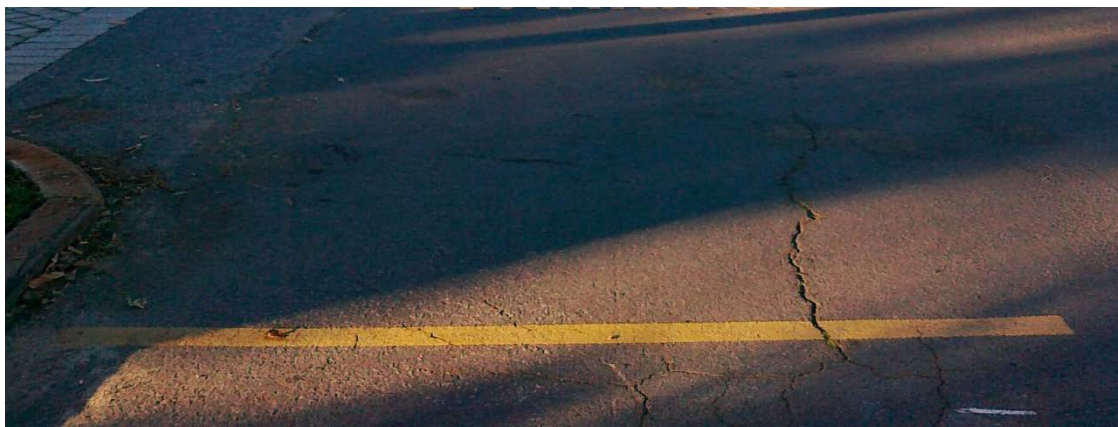


Photo of line marking example around driveways

### **Parking Permits for Businesses**

Consideration has been given to the provision of parking permits for businesses. While this is a solution for businesses, it defeats the purpose of time restrictions in residential areas. Office workers having permits which allow them to park all day in front of residences will result in increased complaints from the residents. For this reason this suggestion is not supported.

### **Increased Parking to 4 Hours Near Businesses**

In order to provide some more parking for businesses it has been suggested that in conjunction with increasing the number of parking bays in the vicinity of intersections with Stirling Highway, that some of these extra bays could be set aside for four hour parking. This allows for half day parking, which provides some benefit to businesses, although it is noted that staff would need to move their vehicles to another street to avoid parking infringements. The four hour bays would only be adjacent to the business areas (not residential areas) and it would provide the businesses with a medium term parking options which would be more attractive than the two or three hours parking option in the residential sections of the street.

It is proposed that this principle be supported by Council, but that each street where this is considered be treated on a case by case basis, following consultation.

### **Parking Permits for Residences**

The City currently issues parking permits to residents on request and subject to criteria in the City's local law on the matter. The new local law is imminent and this provides the ability for residents for issue visitor permits, and guidelines about numbers of permits to be issued.

This service is complimentary to parking restrictions in place for the entire City and provides some flexibility for residents who may otherwise be limited with parking options near their homes. These permits are mentioned not because they form part of the recommendations, but because they provide background information to the options available to residents for parking near their homes.

### **Boronia Avenue**

Boronia Avenue has seen a significant response from the residents in terms of the adverse parking effect of staff parking in the residential areas of Boronia Avenue. Recently a 24 hour gymnasium near Boronia Avenue, was also approved on Stirling Highway, which is likely add to the business parking pressures.

Boronia Avenue has the benefit of a wide paved entry off Stirling Highway and the lots behind the businesses are higher density apartments, as shown in the diagram below.



Figure 1. Boronia Avenue parking potential

Applying angles parking on the eastern side of Boronia Avenue has the potential to increase parking by nine bays.

Boronia Avenue is listed in the Forward Works Plan for year 2015/16 and detailed design and consultation would occur to accommodate the proposed angled parking.

### **Dalkeith Road**

The feedback received from the consultation process is divided into two camps. On the one hand the residents have expressed general satisfaction with the parking restrictions and the parking situation has now improved for them. On the other hand the businesses have expressed that the parking restrictions make it very difficult for their staff, with specific comments that the ability to use public transport isn't viable for most staff.

Unlike other intersections with Stirling Highway, Dalkeith Road has no scope to increase available on-street parking.

Approving development in this area that doesn't meet the off-street car-parking criteria should be avoided in future as this area is already under considerable parking stress.

There is no simple fix to this problem, however there is a possibility that is raised here for the purposes of initial discussion which would be considered a medium to long term solution. There is land owned by the City freehold, lots

56 and 51 Dalkeith Road, as shown below, that current serves a drainage sump. The land is 870m<sup>2</sup> including both lots, with capacity for about 40 car bays.

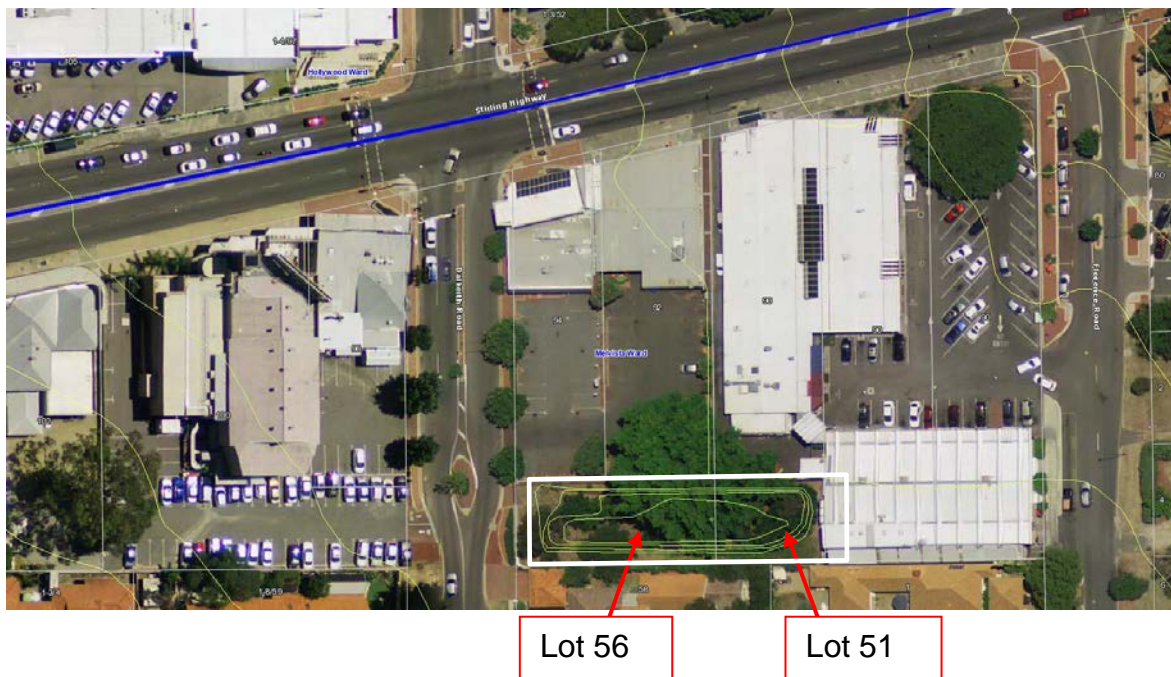


Figure 2. Sump and Lots 51 and 56 Dalkeith Road

This land has the potential to provide increased parking to the area, however the primary purpose of these lots would need to be retained, that of 1 in 100 year drainage basin. In order to achieve this, the underground storage volume, infiltration capacity and maintainability would need to be uncompromised. The car parking would therefore effectively be built as a suspended slab along with footings such as piling or deep set pad or strip footings, designed to cope with the presence of infiltrating water. In terms of order of magnitude costs a standard carpark without any of the drainage basin requirements would cost in the order of \$300,000, whereas this carpark would cost in the order of \$2,000,000.

Each bay would therefore cost about \$50,000 compared to about \$7,500 for a standard carpark.

Funding options such as business contributions, or construction of a commercial complex for leasing out by the City with a balance of parking allocated to general parking for the area, would need to be considered.

In order to further contemplate a project such as this the City would firstly need to carry out feasibility analysis to determine the real parking demand, planning considerations, concept design and a cost benefit analysis. Weighing this against the competing financial demands that the City faces would then be possible for Council.



As mentioned previously this is raised as a discussion starter in response to the parking pressures and conflicting needs of residents and businesses in Dalkeith Road.

### **Weld Street**

A small anomaly exists in the short term parking area near the intersection of Weld Street and Stirling Highway. The short term parking restriction is typically for one hour in the business precincts along Stirling Highway. There has been a request to harmonize this situation, based on feedback from an adjacent business which needs the one hour stay to allow customers adequate time to conduct their business.

Where practicable a consistent approach to parking restrictions is considered appropriate. This will also assist the adjacent businesses and is therefore supported at administration level.

### **Consultation**

Required by legislation:	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Required by City of Nedlands policy:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

Consultation was undertaken originally with all streets where the proposed restrictions were to be implemented prior to a report going to Council in December 2011.

During the trial but prior to the consultation period beginning, feedback was received from residents and stakeholders, including a petition from residents on Tyrell Street. All of this feedback was taken into consideration when evaluating the feedback and creating recommendations.

We then consulted after the trial, this included letter dropping 2000 flyers, advertisements in the local newspaper, public notices on the City's notice boards, information at Tresillian and both libraries and information including an online survey on the website.

Internal consultation has occurred across the City's administrative functions. The rangers in particular have provided assistance with the recommendations, given their ongoing front line participation in the parking issues.

The consultation report is appended as attachment 4. It has been integral to the discussion and solutions to this report.

### **Legislation / Policy**

Traffic management delegation to the Chief Executive Officer under the *Local Government Act 1995*.

Creation of Reserve accounts under *section 6.11 of the Local Government Act 1995*.

Traffic Management Policy - Identifies an intention to investigate parking hotspots.

Nature Strip Development Policy - This notes that nature strip / verge parking should be minimized wherever alternatives exist. In context the paved road areas near the intersections with Stirling Highway are generally very wide so there is already scope to increase parking without the cost of additional pavement and without removal of large amounts of nature strip.

Cash In Lieu Of Car Parking (LPP) - This policy allows the City to accept cash payment in lieu of on-site parking. This provides an opportunity for the City to potentially fund extra bays near the intersections with Stirling Highway for businesses. It is recommended that a separate reserve fund be created in order to allocate to cash in lieu of parking.

### **Budget/Financial Implications**

Within current approved budget:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Requires further budget consideration:	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

\$79,000 was spent in the 2012/2013 financial year on the supply and installation of the trial signage. The trial study and analysis was done in house. Further costs to be incurred will include south east area signage, though this will be undertaken within existing budget operational funds.

The recommendation to provide increased parking near the intersections along Stirling Highway will be built into capital works programs where the intersecting roads are being upgraded. An example of this is Doonan Rd which has been approved for upgrade in the 2013/14 financial year. Doonan Road near the intersection area is being designed as parts of these works to provide for increased parking.

Furthermore the provision of cash in lieu of parking from reserve funds may also assist the funding of these extra parking areas, as discussed under the Legislation/policy heading of this report.

The Dalkeith Road car park opportunity is not within the City's Strategic Plan. Broad costings have been provided for discussion purposes only.

### **Risk Management**

The following risks have been identified should Council not approve the recommendation:

- Decrease in the functionality of the parking;
- Ongoing issues for businesses with lack of parking
- Loss of amenity for residents who are largely affected by long term parking.
- Safety issues with people entering and exiting their driveways

## **Conclusion**

The Stirling Highway parking trial is considered to have been largely successful, by:

- Increasing the functionality of the parking by discouraging all day parking;
- Creating a turnover of bays so that a greater number of users can access them; and
- Provide better amenity for residents in the area who are primarily affected by long term parking.

After much investigation and consultation with the community, the recommendations Administration put forward will address and improve parking issues in the City's parking hot spots.

The City has an ongoing responsibility to provide a balance of parking between residents and businesses. The unwanted situation of commuters or other persons parking all day in residential streets or adjacent to businesses which need turnover has also been addressed. The recommendations aim to increase community safety, amenity of streets and the practicality of parking with the City.

## **Attachments**

1. Maps – Parking Restrictions Implemented During Parking Trial
2. Proposed Additional Parking Restrictions Map
3. Stirling Highway Parking Trial Analysis
4. Stirling Highway Parking Trial Consultation Results and Analysis
5. Information / Directions to View Parking Trial Photographs