

6 April 2010

## BICYCLE FACILITIES IMPROVEMENTS IN PROXIMITY TO CARLTON GARDENS

**Portfolio** Connected City

**Division** City Planning and Infrastructure

**Presenter** Geoff Robinson, Manager Engineering Services

### Purpose

1. To advise the Future Melbourne Committee of various options that are designed to improve the safety of cyclists using the Rathdowne / Exhibition / Victoria Streets intersection, the Rathdowne Street and Nicholson Street carriageways and other roads adjacent to the Carlton Gardens.

### Recommendation from management

2. That the Future Melbourne Committee endorse the following actions:
  - 2.1. **Improvements to the Rathdowne Street on - road bicycle route:**
    - 2.1.1. install signs and pavement markings to direct cyclists from Canning Street to Rathdowne Street via Barkly Street;
    - 2.1.2. install larger advanced bicycle storage boxes on the Rathdowne Street approaches to its intersections with Grattan, Queensberry and Victoria Streets; and
    - 2.1.3. upgrade drainage pits to ensure motor vehicles do not have to travel in bicycle lanes.
  - 2.2. **Improvements to Nicholson Street shared path bicycle route:**
    - 2.2.1. widen the asphalt footpath component of the bluestone pitcher vehicle crossings to the Exhibition Centre and Museum; and
    - 2.2.2. install porous paving on all tree plots in Nicholson Street between Victoria Street and Carlton Street.

### Background

3. Prior to the Connected City Committee resolution of 10 November 2009, a number of traffic management measures were either implemented or planned to be implemented along Rathdowne Street and Nicholson Street.

### Rathdowne Street

4. Measures applicable to Rathdowne Street have resulted in a 78 per cent increase in bicycle volumes in the morning peak period between September 2007 and September 2009. The measures include:

- 4.1 recently installed profiled edge line (vibra-line) along the full length of Rathdowne Street;
  - 4.2 recently installed green pavement at conflict points, such as private driveways and T-intersections, along the full length of Rathdowne Street profiled edge line (vibra-line) along the full length of Rathdowne Street; and
  - 4.3 recently installed morning peak standing ban (7.30am to 9.30am Monday to Friday) on the east side of Exhibition Street between La Trobe Street and Lt Lonsdale Street to provide southbound cyclists an unimpeded travel route as they enter the CBD.
5. Other proposed changes to the Rathdowne Street / Pelham Street intersection are designed to reduce the speed at which motorists turn right into the Museum's off street car park. These works will improve pedestrian and cyclist safety. The estimated cost is \$120,000. An application for funding will be submitted for consideration as part of Council's 2010-2011 Works Program.

### **Nicholson Street**

6. The measures applicable to Nicholson Street are:
- 6.1 installation of additional signage and pavement markings along the Nicholson Street shared footpath. This will improve the delineation between cyclists and pedestrians; and
  - 6.2 installation of additional signage at conflict points where pedestrians cross the footpath from abutting properties. These areas include the Carlton Gardens, the Exhibition Building forecourt and the Melbourne Museum.
7. After considering a report on cyclist commuter routes intersecting with key parks and gardens, Council's then Connected City Committee, at its meeting of 10 November 2009, recommended:
- 7.1 the painting of "no cycling" signs in appropriate places including Rathdowne Street near the corner of Carlton Street; and
  - 7.2 that a report on the Rathdowne/Exhibition/Victoria Street intersection and the Rathdowne Street and Nicholson Street carriageways adjacent to the gardens assessing options to improve the safety for cycling on these routes be presented to the Committee.
8. Parks Services Branch is currently upgrading the bicycle signage at the entrances to all Gardens, including Carlton Gardens.

### **Key Issues**

9. Following the Committee's November resolution a new assessment of the traffic management measures along Rathdowne Street adjacent to the Carlton Gardens was undertaken. This assessment considered the following aspects of functional design:
- 9.1 the safety of all road users, particularly the vulnerable road users such as cyclists and pedestrians;
  - 9.2 the capacity and congestion levels of the main intersections during the peak periods;
  - 9.3 the movement of trams and buses along these streets; and
  - 9.4 the road pavement conditions.

10. Particular attention was given to the deficiencies of the bicycle facilities in Rathdowne Street. The assessment indicated that the main deficiencies leading to and along Rathdowne Street were as follows:
  - 10.1 poor directional signage on the approach to Carlton Gardens;
  - 10.2 inadequate advanced bicycle waiting areas at the signalised intersections;
  - 10.3 poor road pavement conditions at the Victoria Street intersection adjacent to a drainage pit; and
  - 10.4 a narrow bicycle traffic lane that continues up to the Victoria Street intersection.
11. In order to address these deficiencies the following low cost treatments will be implemented:
  - 11.1 signage and pavement markings to encourage cyclists approaching the Carlton Gardens from the north to detour at the Canning/Faraday/Barkly Streets roundabout onto Barkly Street and subsequently onto Rathdowne Street;
  - 11.2 installation of new line marking to encourage entry to Rathdowne Street from Barkly Street;
  - 11.3 extension of the bicycle lane on Carlton Street up to the stop holding line at Rathdowne Street;
  - 11.4 installation of larger advanced storage boxes on the Rathdowne Street north and south approach to Grattan Street, Queensberry Street and Victoria Street to accommodate the relatively high morning and evening peak bicycle volumes into / out of the City; and
  - 11.5 replacement of the existing side entry drainage grated pit on the east side of Rathdowne Street on the north approach to Victoria Street. This is currently sunken and uneven and forces motorists to encroach into the adjacent bicycle lane when completing their left turn movement. This will be replaced with a double entry narrower pit that is flush with the road surface.
12. Following the Committee's November resolution a new assessment was also carried out along Nicholson Street adjacent to the Carlton Gardens. The assessment indicated that the main deficiencies along the shared path were poles, vehicle crossings and tree plots which reduce the effective footpath width.
13. In order to improve these deficiencies the following low cost treatments will be implemented:
  - 13.1 widen the asphalt footpath component of the bluestone pitcher vehicle crossings to the Exhibition Centre and Museum; and
  - 13.2 install Terrabond or Rockpave (40mm thick porous paving on crushed rock sub-base) at all tree plots on the west side of Nicholson Street between Victoria Street and Carlton Street in order to increase the available path area at these footpath squeeze points.

#### **Other Options Considered by Management**

14. A number of more far reaching options are available but given the negative impact that they would have on the overall local road network they have not been recommended. These options would lead to increased congestion, delays to public transport services and motor vehicles and diversion of traffic. Some of these actions are not supported by VicRoads or the City of Yarra. They are discussed below:

- 14.1 **Banning the right turn from Rathdowne Street (southbound) into Victoria Street (westbound) and removing the right turn lane** would allow a significant widening of the narrow 800mm wide bicycle lane and the adjacent traffic lanes. This would result in increased capacity for cyclists and improve the safety and amenity of the bicycle lane. Unfortunately given the relatively high number of right turns occurring at this intersection, banning the turn will result in right turn queues blocking through traffic movements at nearby intersections. This will lead to increased congestion and delays to public transport services during peak periods.
- 14.2 **Removing the southbound left lane in Rathdowne Street at Victoria Street** placing the bicycle lane adjacent to the kerb and converting the adjacent traffic lane to a shared left and through lane would result in a significantly widened bicycle lane. This option would lead to increased delays to motor vehicle movements and the Rathdowne Street bus services. It would also create conflict between left turning vehicles and the through cyclist movement. This treatment cannot be recommended for safety reasons.
- 14.3 **Replace the Nicholson Street Shared Path with an On-Road Lane.** Given its relatively narrow width and issues with pedestrian safety, there is some support, from pedestrians, to remove the Nicholson Street shared path. An independent road safety audit has not confirmed safety issues with this shared path. The optimum Nicholson Street bicycle treatment would be to remove the shared path and install on-road bicycle lanes, either in the slow traffic lane or in the parking lane. The removal of a traffic lane in Nicholson Street would result in significant increases in queue lengths in both directions at all times. This would impact on the operation of the nearby signalised intersections and would lead to significant tram delays and increased travel times for motorists. Removing kerbside parking from both sides of Nicholson Street between Victoria Street and Carlton/Moore Streets, in order to facilitate the installation of on-road bicycle lanes is not supported by the City of Yarra. Installing a two-way bicycle path on the west side (within the City of Melbourne municipality) is not possible due to inadequate road space. Removal of kerbside parking from the west side of Nicholson Street would result in an estimated loss of \$160,000 parking meter revenue per annum.

#### **Time frame**

15. The recommended works can be completed by June 2010.

#### **Relation to Council policy**

16. The comments in this report are consistent with Council's Bicycle Plan 2007-2011.

#### **Consultation**

17. Officer level consultation has been undertaken with Bicycle Victoria, VicRoads and City of Yarra. Bicycle Victoria supports the recommended low cost measures and wishes to continue working with Council to further improve bicycle safety and amenity in this area.

#### **Finance**

18. Low cost measures as detailed in paragraphs 11 and 13 have been estimated at approximately \$40,000 and can be funded from the bicycle component of Council's 2009/2010 Capital Works Budget.

#### **Conflict of interest**

19. In preparing this report has declared a direct or indirect interest in relation to the matter of the report.

**Legal**

20. There are no direct legal issues arising from the report.

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**FINANCE ATTACHMENT**

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**BICYCLE FACILITIES IMPROVEMENTS IN PROXIMITY TO CARLTON GARDENS**

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As detailed in the body of the report, the low cost measures have been estimated at approximately \$40,000 and can be funded from the bicycle component of Council's 2009/2010 Capital Works Budget.

**Phu Nguyen**  
Acting Manager Financial Services

**LEGAL ATTACHMENT**

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**BICYCLE FACILITIES IMPROVEMENTS IN PROXIMITY TO CARLTON GARDENS**

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There are no direct legal issues arising from the report.

Section 3C (1) of the *Local Government Act 1989* (“the Act”) provides that the:

*“primary objective of a Council is to endeavour to achieve the best outcomes for the local community having regard to the long term and cumulative effects of decisions”.*

Section 3C (2) of the Act further provides that in seeking to achieve its primary objective a Council must have regard to facilitating objectives, including:

*(a) “to promote the social, economic and environmental viability and sustainability of the municipal district”.*

Section 3E (1)(d) of the Act provides that one of the functions of a Council is undertaking strategic and land use planning for the municipal district.

**Kim Wood**  
Manager Legal Services