

### 3. RATTRAY STREET – STREET RENEWAL PROJECT

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<b>Officer responsible:</b>	Transport & Greenspace Manager
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#### PURPOSE OF REPORT

1. The purpose of this report is to seek the Board's approval to proceed to final design, tender and construction for the Rattray Street - street renewal project, as shown in the **attached** plan.

#### EXECUTIVE SUMMARY

2. Rattray Street runs between Riccarton Road and Peverel Street, and is 340 metres long. The road reserve is 20 metres wide, and the existing carriageway is approximately 13-14 metres wide, with kerb and deep dish channel, and footpaths. The carriageway in the southern half of the street is badly crazed, indicating the need for full reconstruction.
3. The surrounding area is primarily residential in nature. There is a church on the corner of Peverel St, and a Kidsfirst Kindergarten at No 107. There is a walkway between No 97 and No 99 through to the Shands Crescent Reserve to the west.
4. The street is not part of a NIP but there is a SAM for Shands Crescent that includes the property on the Riccarton Road corner.
5. In accordance with the aims and objectives of the project, three options were developed for comparison for Rattray Street, and a preferred option was presented in a seminar to the Board on 13 February 2007. Concerns were raised about the width of the chicane and the need for a service strip.
6. The preferred option was presented to the community via a leaflet distributed to residents, absentee owners and other key stakeholders. At the close of consultation on 5 March 2007 there were only 5 responses received, all of which were generally supportive of the project.
7. No changes have been made to the Rattray Street plan as a result of the feedback received.
8. The key aspects of the preferred option are outlined in paragraph 32 below, and shown on the **attached** plan for approval.

#### FINANCIAL IMPLICATIONS

9. The street renewal works for Rattray Street are recommended in the Transport & Greenspace Unit's Capital Programme for implementation in the 2007/2008 financial year. The estimated cost of this project is \$784,300. The cost of this work will be covered in the overall kerb and channel programme for 2007 through the re-prioritisation of works city wide.
10. It is expected that the project works will be carried out in August – November 2007.

#### LEGAL CONSIDERATIONS

11. There are a number of land ownership issues associated with this project but none of these affect the proposed scheme design.
12. One existing street tree (Elm) at the Riccarton Road intersection will remain as part of the design. There are no notable or heritage trees, and no heritage or historic buildings, places and objects, shown in the City Plan or on Webmap2 on the intranet.
13. The City Plan defines minimum roadway widths for different road classifications. The proposed plan for Rattray Street has the carriageway reduced to 10 metres (9 metres is the minimum for a local road).

14. Where kerb build-outs are introduced along a street, the length of roadway subject to a width of less than 9 metres that is less than 60 metres in length, permits a waiver of the need to obtain resource consent. The proposed plan for Rattray Street includes a raised threshold and narrowing to 7 metres at the Riccarton Road and Peverel Street intersections. At the midway point, beside the existing culvert, the proposal includes an angled chicane with a raised platform and narrowing to 4 metres outside Nos 97 and 98. No resource consent is required, and there appear to be no legal implications for this project.
15. No stopping areas are required at both intersections and the chicane. Community Board resolutions are required to approve the new traffic restrictions.

#### **ALIGNMENT WITH LTCCP AND ACTIVITY MANAGEMENT PLANS**

16. This project aligns with the street renewal capital works programme, as detailed on page 85 of the LTCCP (2006-2016).

#### **Do the recommendations of this report support a level of service or project in the 2006-16 LTCCP?**

17. The recommendations of this report support the capital programme in the 2006-2016 LTCCP.

#### **Do the recommendations align with the Council's strategies?**

18. This project aligns with the Council's parking strategy, road safety strategy, cycling strategy and pedestrian strategy.

#### **CONSULTATION FULFILMENT**

19. Initial Issues consultation was carried out in July/August 2006. Issues raised were incorporated in this concept proposal.
20. **Initial external consultation** was undertaken with the community in July/August 2006. A survey was distributed to all owners and residents of Rattray Street and extended around the corner to a few houses in Peverel Street and Riccarton Road. The survey requested feedback about the issues the Council needs to consider in the reconstruction of their street. The key issues arising from the 9 responses received were:
  - **Parking** – at the church, kindergarten and at some rented properties.
  - **Speed reduction** – residents say that boy racers and other drivers speed in the street.
  - **Cyclists** – cycle lanes and/or cycle safety measures requested.
  - **Road surface** – smooth road surface requested.
  - **Footpath** – wide enough footpaths for mobility scooters requested.
  - **Landscaping** – a few comments requesting trees and landscaping.
  - **Street lighting** – better street lighting requested by two people.
  - **Drainage issues** – some flooding reported but no specific areas mentioned.
  - **Vandalism** – one respondent reported moderate vandalism.
21. In relation to the resident's feedback about traffic speed, the traffic volume along Rattray Street has been measured at a daily average of 751 vpd (vehicles per day) for 4 days and 716 vpd for 7 days. When traffic speeds were measured in October 2006 a maximum speed of 102.3 km/h and a minimum speed of 1.3 km/h were measured, giving a mean speed of 43.9km/h. The 85<sup>th</sup> percentile speed was measured at 54.0km/h with a mean speed of 44.6km/h. A parking survey showed a need for on-street parking outside the kindergarten at the beginning and end of both daily sessions, some outside rented properties mid-block and at the church. The Land Transport New Zealand Crash Analysis System shows that there have been three crashes recorded in the vicinity of Riccarton Road/Rattray Street, during the five year period between 2001 and 2005, but none of these occurred in Rattray Street itself.
22. The **Preferred Option** was presented in a seminar to the Riccarton/Wigram Community Board on 13 February 2007. Concerns were raised there about the width of the chicane and the need for a service strip. This is required because there are existing Telstra service boxes protruding from the fence line along the length of the street.
23. The Preferred Option was then circulated to the community via a leaflet distributed to residents, absentee owners and other key stakeholders.

24. There were only five responses received at the close of consultation on 5 March 2007, of which two were completely supportive, and three were generally supportive with comments.
25. The comments were about:
- The impact on left turners of narrowing the Riccarton Road threshold.
  - Potential problems doing a U-turn in the narrowed street especially outside the kindergarten.
  - Potential damage to new trees in the street if they were small like those planted in Wainui Street.
26. No changes have been made to the Rattray Street plan as a result of the feedback.

#### **STAFF RECOMMENDATIONS**

That the Board approves:

- (a) The Rattray Street renewal project to proceed to final design, tender and construction, as shown in the **attached** plan
- (b) The following traffic restrictions:
- (i) That the stopping of vehicles be prohibited at any time on the eastern side of Rattray Street commencing at its intersection with Riccarton Road and extending 17 metres in a southerly direction.
  - (ii) That the stopping of vehicles be prohibited at any time on the western side of Rattray Street commencing at its intersection with Riccarton Road and extending 16 metres in a southerly direction.
  - (iii) That the stopping of vehicles be prohibited at any time on the eastern side of Rattray Street commencing at a point 157 metres south of its intersection with Riccarton Road and extending 28 metres in a southerly direction.
  - (iv) That the stopping of vehicles be prohibited at any time on the western side of Rattray Street commencing at a point 150 metres south of its intersection with Riccarton Road and extending 33 metres in a southerly direction.
  - (v) That the stopping of vehicles be prohibited at any time on the eastern side of Rattray Street commencing at its intersection with Peverel Street and extending 12 metres in a northerly direction.
  - (vi) That the stopping of vehicles be prohibited at any time on the western side of Rattray Street commencing at its intersection with Peverel Street and extending 12 metres in a northerly direction.
  - (vii) That the stopping of vehicles be prohibited at any time on the southern side of Riccarton Road commencing at its intersection with Rattray street and extending in a westerly direction to its intersection with Shand Crescent.
  - (viii) That the stopping of vehicles be prohibited at any time on the northern side of Peverel Street commencing at its intersection with Rattray Street and extending 12 metres in a westerly direction.
  - (ix) That the stopping of vehicles be prohibited at any time on the northern side of Peverel Street commencing at its intersection with Rattray Street and extending 9 metres in a easterly direction.

## **BACKGROUND (THE ISSUES)**

27. Rattray Street runs between Riccarton Road and Peverel Street, and is 340 metres long. The road reserve is 20 metres wide, and the existing carriageway is approximately 13-14 metres wide, with kerb and deep dish channel, and footpaths.
28. Rattray Street is located in the Riccarton ward, which falls within the jurisdiction of the Riccarton/Wigram Community Board. It is classified as a local road in the Council's roading hierarchy.

## **THE OBJECTIVES**

29. The objectives for the Rattray Street kerb and channel replacement project are as follows:
  - (a) To reflect the local road nature of the street.
  - (b) To address the issue of the speed of vehicles in the street.
  - (c) To improve or maintain safety for pedestrians, cyclists and vehicles.
  - (d) To ensure the design meets the demand for on street parking.
  - (e) To improve amenity of the street.
  - (f) To upgrade street lighting if appropriate.
  - (g) To ensure adequate drainage design.

## **THE OPTIONS**

30. In accordance with the aims and objectives of the project, three options were developed for comparison for Rattray Street. The preferred option was presented in a seminar to the Riccarton/Wigram Community Board on 13 February 2007 and circulated to the residents and owners of Rattray Street and its immediate vicinity in February 2007, for their comments. The other options are outlined later in this report.

### **The Preferred Option (Option 2)**

31. This preferred option comprises full pavement reconstruction of Rattray Street and the replacement of the existing kerb and deep dish channel. It incorporates:
  - (a) Reduced carriageway width from the existing 14m to 10m.
  - (b) Kerb build outs as a threshold treatment (Type C 'Modified' treatment – 75mm raised platform) at the Riccarton Road intersection, reducing the carriageway width from 11m to 7m on Rattray Street for the first 15m.
  - (c) Kerb build-outs as a threshold treatment (Type B treatment – 75mm raised platform) at the Peverel Street intersection, reducing the carriageway on Rattray Street from 14m to 7m for the first 15m and reducing the corner radii.
  - (d) An angled chicane, 4.0m wide, outside No. 97/98, where an existing culvert crosses the carriageway, with a 75mm raised platform along the length of the angled chicane, corresponding to the existing natural rise in the road due to the existing culvert height. A width of 4.0m is proposed rather than the 3.0m recommended by the Austroads Local Area Traffic Management Guide. This width has been used due to it being an angled chicane with a large deviation.
  - (e) New footpaths on both sides of the carriageway. This path will be 1.65m wide and will be located between a 0.8m wide grass service strip and a 2.5 – 3.0m wide grass berm. The path has been located so the existing lighting poles are located within the berm area. The grass service strip is required, as there are green Telstra service boxes located outside every second property on both sides of the street.
  - (f) Street trees in the berm areas on both sides of the carriageway and landscaping is proposed within the threshold areas and at the angled chicane.

- (g) 'No Stopping' areas at the following locations for the extent of the narrowing:
  - (i) Riccarton Road intersection,
  - (ii) Narrowing at the existing culvert (No. 97/98) and
  - (iii) Peverel Street intersection.
- (h) A street lighting upgrade has been investigated as part of this option.
- (i) Narrow vehicle crossing will be increased to 3.5m as part of the works.
- (j) A new vehicle crossing as part of a new development proposed on the south-western corner of the Rattray Street and Riccarton Road intersection.

**Other Options:**

**Maintain the Status Quo (not preferred option)**

- 32. The existing street width is 14m wide with kerb and deep dish/covered dish channels. No landscaping is provided along the street except at the Riccarton Road intersection. This option would be inconsistent with the Community Outcomes outlined in the LTCCP and with Council Strategies including the pedestrian strategy, the cycling strategy, road safety strategy and parking strategy, as well as the Council's asset management plan.

**Option 3 – 7.5m wide carriageway with alternating parking bays**

- 33. This option would be aligned moving east and west along the street, similar to Wainui Street, with alternating parking bays along the length of the street. Option 3 also incorporates:
  - (a) Kerb build outs as for Option Two.
  - (b) Threshold treatment at Peverel Street similar to Option 2 except the carriageway would be reduced to 7.5m for the first 15m.
  - (c) A paved raised platform 7.5m wide at the existing culvert so the natural rise (formed due to the height of the culvert) in the road can remain.
  - (d) 90 degree angled parking outside the preschool and opposite the church.
  - (e) New footpaths on both sides of the carriageway, 1.65m wide and will be located between a grass service strip and a grass berm in the areas without parking bays, and between a wide service strip and the parking bays in the areas with parking bays. The path has been located so the existing power poles are located within the berm area. The grass service strip is required, as there are green Telstra service boxes located outside every second property on both sides of the street.
  - (f) Street trees in the berm areas and at the end of some of the parking bays depending on the length of the parking bay.
  - (g) Landscaping within the threshold areas, where the carriageway moves alignment and at the culvert.
  - (h) 'No Stopping' areas at the following locations for the extent of the narrowing:
    - (i) Riccarton Road intersection,
    - (ii) Where the carriageway changes alignment outside No. 103 and No. 88, and
    - (iii) Peverel Street intersection.
  - (i) A street lighting upgrade.
  - (j) Narrow vehicle crossing will be widened to 3.5m as part of the works.

## **ASSESSMENT OF OPTIONS FOR RATTRAY STREET – STREET RENEWAL PROJECT**

### **Maintain the Status Quo**

34. The option to maintain the status quo essentially means to undertake no capital works along Rattray Street. This would retain the street and road environment in its existing condition, including deep-dish kerb and channel.
35. This option would be inconsistent with the Community Outcomes outlined in the LTCCP, and would be inconsistent with Council strategies, including the pedestrian strategy, cycling strategy, road safety strategy and parking strategy, as well as the Council's asset management plan.
36. Therefore, it is considered inappropriate to maintain the status quo because of the opportunity to contribute to an efficient, safe and sustainable transport system within this area of the City, whilst providing for all modes of transportation.

### **The Preferred Option**

37. Option 2 is the preferred option and satisfies all of the project objectives as follows:

#### **Replace the existing kerb and dish channel with kerb and flat channel**

38. The existing kerb and dish channel will be replaced with kerb and flat channel for the full length of Rattray Street.

#### **To reflect the local road nature of the street**

39. The reduction in carriageway width from 14m to 10m, the inclusion of threshold treatments at each end of the street, and the planting of street trees and landscaping will highlight the local road nature of the street.

#### **To address the issue of the speed of vehicles in the street**

40. The current 85<sup>th</sup> percentile vehicle speed along Rattray Street is 54km/h, which does not highlight a significant speed issue along the street. However the public consultation highlighted concerns with boy racers and through traffic. It is expected that the inclusion of threshold treatments at each end of the street and the angled chicane in the centre of the street will reduce speeds along the street and reduce the amount of through traffic and boy racers.

#### **To improve or maintain safety for Pedestrians, cyclists and vehicles**

41. The threshold treatments at each end of the street, and the inclusion of an angled chicane midway along the street are expected to reduce the vehicle speeds along Rattray Street. A speed reduction will reduce the likelihood and severity of future accidents thereby improving safety for road users.
42. The width of the angled chicane is 4.0m to provide sufficient space for a vehicle to safely pass a cyclist. The expected reduction in vehicle speeds along the street will also improve safety for cyclists by providing a slower speed environment.
43. Pedestrian facilities along Rattray Street will be improved in the following ways:
  - The existing footpaths are only 1.2m wide. This width will be increased to 1.65m on both sides of the carriageway.
  - The paths will be located between a 0.8m wide service strip and grass berms and will run along the full length of the street. The new paths have been located so the existing lighting poles, and Telstra service boxes are located within either the berm area or service strip.
  - The crossing width at the Riccarton Road intersection will reduce from 11m to 7m.

- The crossing width at the Peverel Street intersection will reduce from 14m to 7m.
- The angled chicane will provide a location for pedestrians to cross the road in the centre of the street, which is situated adjacent to the path through to the reserve in Shand Crescent.
- Improved lighting along the street will improve pedestrian safety during night time.

**To ensure the design meets the demand for on street parking**

44. This scheme will see the removal of approximately eight on-street parking spaces. Currently both the Riccarton Road and Peverel Street intersections have no stopping restrictions in place and these will be extended slightly further, reducing the amount of parking. Although the on street parking demand is quite high in certain areas along the street the proposed parking supply will still be sufficient to cater for the parking demand.

**To improve amenity of the street**

45. The amenity of the street will be improved by the reduction in sealed areas, the inclusion of street trees, and the additional landscaping areas at the Riccarton Road intersection, at the angled chicane near the culvert, and at the Peverel Street intersection.

**To upgrade street lighting**

46. A street lighting assessment has been completed for the proposed scheme. A number of street lighting improvements are proposed as part of the scheme.

**To ensure adequate drainage design**

47. The City Solutions Drainage Engineer has completed a drainage review for Rattray Street. There are minimal drainage issues along Rattray Street. The proposed changes to the street have been reviewed by the drainage engineer and adequate drainage design has been allowed for during the scheme design process.

**Alternative Options**

48. Option 1 only partially meets the objective to maintain or improve safety for pedestrians, cyclists and vehicles, by maintaining the existing arrangement. It also meets the objective for on-street parking, because no changes are proposed and therefore the parking supply is unchanged. Otherwise this option does not meet any of the remaining objectives of the project, as stated above, and was therefore not selected as the preferred option.
49. Option 3 has not been selected as the preferred option due to it providing less speed reduction benefits, it being a higher cost option, and the uncertainty regarding resource consenting requirements for a below minimum width carriageway.