

## 6. HAMILTON AVENUE – KERB AND CHANNEL RENEWAL

<b>General Manager responsible:</b>	General Manager City Environment
<b>Officer responsible:</b>	Transport and City Streets Unit Manager
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### PURPOSE OF REPORT

1. The purpose of this report is to:
  - (a) Seek the Board's approval for the Hamilton Avenue Kerb and Channel Renewal project to progress to final design, tender and construction; and
  - (b) Seek the Board's approval for resolutions for new traffic restrictions associated with the Hamilton Avenue Kerb and Channel Renewal project.

### EXECUTIVE SUMMARY

2. This kerb and channel renewal project for the full length of Hamilton Avenue is on the Christchurch City Council's Capital Works Programme in the 2005/06 and 2006/07 financial years in conjunction with Chilcombe Street. This is a local road lined with Plane trees for the majority of its length.
3. The Project Consultation Leader has consulted with the Hamilton Avenue Action Committee, local schools, residents, property owners, and other interested parties. Feedback from the community was considered by the project team and the plan as shown in **attachment 1** has been identified as the preferred design option for the renewal of the kerb and channel in Hamilton Avenue as it satisfies the aims and objectives of the project and has majority community support.
4. The plane trees will be removed as they and new street trees will be planted as part of the project. The species chosen is liquidambar.
5. Residents would like to have the overhead services undergrounded as part of this project, the Council has insufficient funding to do so. There is still strong opposition from some residents to proceeding with the construction of Hamilton Avenue as the Council has not yet finalised its policy relating to residents contribution for undergrounding in streets. Council staff do not support this proposal to delay the project.

### FINANCIAL AND LEGAL CONSIDERATIONS

6. The estimated total cost for this project is \$2,400,620 inclusive of all consultation, design and project management.
7. If this project is delayed the Council will not be able to meet its target for kerb and channel renewal in the 05/06 financial year and the asset is not renewed as planned.
8. There are no legal implications.

## STAFF RECOMMENDATIONS

It is recommended that the Community Board:

(a) Approve the Hamilton Avenue Kerb and Channel Renewal project, as described in plan TP170101 (**attachment 1**) for final design, tender and construction.

(b) Approve the following new traffic restrictions:

New no stopping:

### Hamilton Avenue north side

- i) That the stopping of vehicles be prohibited at any time on the north side of Hamilton Avenue commencing at its intersection with Clyde Road and extending 30 metres in a west direction.
- ii) That the stopping of vehicles be prohibited at any time on the north side of Hamilton Avenue commencing at a point 105 metres west of its intersection with Clyde Road and extending 38 metres in a west direction.
- iii) That the stopping of vehicles be prohibited at any time on the north side of Hamilton Avenue commencing at a point 100 metres east of its intersection with Otara Street and extending 30 metres in a east direction.
- iv) That the stopping of vehicles be prohibited at any time on the north side of Hamilton Avenue commencing at its intersection with Otara Street and extending 13 metres in a east direction.
- v) That the stopping of vehicles be prohibited at any time on the north side of Hamilton Avenue commencing at its intersection with Otara Street and extending 12 metres in a west direction.
- vi) That the stopping of vehicles be prohibited at any time on the north side of Hamilton Avenue commencing at a point 22 metres east of its intersection with the east side Karo Place and extending 50 metres in a west direction.
- vii) That the stopping of vehicles be prohibited at any time on the north side of Hamilton Avenue commencing at its intersection with Chilcombe Street and extending 22 metres in a east direction.
- viii) That the stopping of vehicles be prohibited at any time on the north side of Hamilton Avenue commencing at its intersection with Chilcombe Street and extending 20 metres in a west direction.
- ix) That the stopping of vehicles be prohibited at any time on the north side of Hamilton Avenue commencing at its intersection with Lothian Street and extending 15 metres in a east direction.
- x) That the stopping of vehicles be prohibited at any time on the north side of Hamilton Avenue commencing at its intersection with Lothian Street and extending 15 metres in a west direction.
- xi) That the stopping of vehicles be prohibited at any time on the north side of Hamilton Avenue commencing at a point 116 metres east of its intersection with Ilam Road and extending 30 metres in a east direction.
- xii) That the stopping of vehicles be prohibited at any time on the north side of Hamilton Avenue commencing at its intersection with Ilam Road and extending 18 metres in a west direction.

### Hamilton Avenue south side

- i) That the stopping of vehicles be prohibited at any time on the south side of Hamilton Avenue commencing at its intersection with Clyde Road and extending 25 metres in a west direction.
- ii) That the stopping of vehicles be prohibited at any time on the south side of Hamilton Avenue commencing at a point 103 metres west of its intersection with Clyde Road and extending 45 metres in a west direction.
- iii) That the stopping of vehicles be prohibited at any time on the south side of Hamilton Avenue commencing at a point 100 metres east of its intersection with Otara Street and extending 33 metres in a east direction.
- iv) That the stopping of vehicles be prohibited at any time on the south side of Hamilton Avenue commencing at a point 18 metres east of its intersection with the east side Otara Street and extending 37 metres in a west direction.
- v) That the stopping of vehicles be prohibited at any time on the south side of Hamilton Avenue commencing at its intersection with Karo Place and extending 18 metres in a east direction.

- vi) That the stopping of vehicles be prohibited at any time on the south side of Hamilton Avenue commencing at its intersection with Karo Place and extending 15 metres in a west direction.
- vii) That the stopping of vehicles be prohibited at any time on the south side of Hamilton Avenue commencing at its intersection with Chilcombe Street and extending 26 metres in a east direction.
- viii) That the stopping of vehicles be prohibited at any time on the south side of Hamilton Avenue commencing at its intersection with Chilcombe Street and extending 22 metres in a west direction.
- ix) That the stopping of vehicles be prohibited at any time on the south side of Hamilton Avenue commencing at a point 19 metres east its intersection with the east side of Lothian Street and extending 40 metres in a west direction.
- x) That the stopping of vehicles be prohibited at any time on the south side of Hamilton Avenue commencing at a point 103 metres east of its intersection with Ilam Road and extending 30 metres in a east direction.
- xi) That the stopping of vehicles be prohibited at any time on the south side of Hamilton Avenue commencing at its intersection with Ilam Road and extending 17 metres in a west direction.

#### Ilam Road

- i) That the stopping of vehicles be prohibited at any time on the east of Ilam Road commencing at its intersection with the north side of Hamilton Avenue and extending 15 metres in a north direction.
- ii) That the stopping of vehicles be prohibited at any time on the east of Ilam Road commencing at its intersection with the south side of Hamilton Avenue and extending 18 metres in a south direction.

#### Lothian Street

- i) That the stopping of vehicles be prohibited at any time on the east of Lothian Street commencing at its intersection with the north side of Hamilton Avenue and extending 17 metres in a north direction.
- ii) That the stopping of vehicles be prohibited at any time on the east of Lothian Street commencing at its intersection with the north side of Hamilton Avenue and extending 20 metres in a north direction.

#### Chilcombe Street

- i) That the stopping of vehicles be prohibited at any time on the east of Chilcombe Street commencing at its intersection with the north side of Hamilton Avenue and extending 23 metres in a north direction.
- ii) That the stopping of vehicles be prohibited at any time on the west of Chilcombe Street commencing at its intersection with the north side of Hamilton Avenue and extending 22 metres in a north direction.

#### Coldstream Court

- i) That the stopping of vehicles be prohibited at any time on both sides of Coldstream Court commencing at its intersection with the north side of Hamilton Avenue and extending 16 metres in a south direction.

#### Karo Place

- i) That the stopping of vehicles be prohibited at any time on both sides of Karo Place commencing at its intersection with the south side of Hamilton Avenue and extending 16 metres in a south direction.

#### Otara Street

- i) That the stopping of vehicles be prohibited at any time on both sides of Otara Street commencing at its intersection with the north side of Hamilton Avenue and extending 15 metres in a north direction.

### **CHAIRMAN'S RECOMMENDATION**

That the staff recommendations be adopted.

## **BACKGROUND ON HAMILTON AVENUE KERB AND CHANNEL RENEWAL PROJECT**

### Description of the Project and the street

9. Hamilton Avenue is a local road, has deep dish channels in poor condition and an average daily vehicle count of 1,300 vehicles per day. The carriageway varies in width from 9 metres with trees on both sides to 11 metres with no trees on the north side. There have been six crashes recorded from 1999 to 2003 on the Land Transport New Zealand's accident database for Hamilton Avenue. Three involved alcohol and the fourth occurred when a car left the road when travelling too fast while making a right turn into Otara Street.
10. This renewal project was incorporated into the Christchurch City Council's 2005/06/07 Capital Works Programme in response to the Hamilton Avenue Action Committee's request that the work be brought forward (in 2003) and the staff's confirmation that the kerb and dish channel was in urgent need of renewal. This project will alleviate stormwater drainage issues that residents have identified in Hamilton Ave and Chilcombe Street. Investigation into the carriageway condition has also indicated the design life of the road is due to expire therefore the carriageway will be reconstructed.
11. Initially the Hamilton Avenue project was combined with the Chilcombe Street project until July 2005. Since this date the consultation for project has been split because further options needed to be discussed with the Chilcombe Street residents while the Hamilton Avenue residents were largely satisfied with the proposed layout of Hamilton Avenue.

### Initial Consultation

12. Consultation for this kerb and channel renewal project was started in July 2004 between Council staff and the Hamilton Avenue Action Group, and then quickly expanded to include local schools, all residents and property owners.
13. The residents wished for the project to achieve the following:
  - Reduce speeding along the street.
  - Reduce the numbers using Hamilton Avenue as a short cut.
  - Provide easy access to exit Hamilton Avenue at the Clyde and Ilam intersections
  - Underground the overhead services
  - Reduce the impact of student parking from the university.
  - Provide a feature to the street at the Hamilton-Chilcombe intersection
14. The Terms of Reference and objectives for the project were based on the initial issues identified above and the Council's own rationale for placing the project on the programme. The principal aim of the project is to replace the kerb and dish channel with kerb and flat channel in Hamilton Avenue. The objectives of the project are to:
  - To replace the existing kerb and dish channel, with kerb and flat channel.
  - Maintain and enhance the avenue "feel" of Hamilton Avenue.
  - Enhance the streetscape with trees and planting where suitable.
  - Improve safety for pedestrians and cyclists by lowering vehicle speeds.
  - A completed project which will satisfy the needs of the Christchurch City Council's Asset Unit and the community.
  - Ensure the work is completed within the defined budget and programme.
  - The work is designed within the guidelines and policies laid out in the Christchurch City Council's City Plan.

### Initial Concept Plan for Hamilton Avenue

15. The objectives above helped to formulate the initial concept plan which was sent to residents in January 2005 in the form of a publicity pamphlet. In addition to the pamphlet seeking feedback, two public meetings held. This concept plan required very little change other than the inclusion of a second entrance to 38 Hamilton Avenue. This change has slightly modified the build-out on the northern side.

16. One of the issues raised by the community was the need to reduce the short cutting effect through Hamilton Avenue and Chilcombe Street. This then became one of the project objectives and the scheme options were developed to reflect this. Analysis of traffic volume data collected at the start of the project confirmed that short cutting was indeed occurring. However, the recent upgrade of adjacent streets, such as Otara Street, indicated this short cutting was happening less due to new narrow entrances to these streets. At the residents request however the entrance to both Chilcombe Street, off Memorial Ave and the entrance to Hamilton Ave from both Ilam Road and Clyde Road have been designed to allow two discharge lanes and one entrance lane. This may reduce the affect of the traffic calming features incorporated through the main section of Hamilton Ave. Narrowing of the entrances would have increased waiting times to exit the street/avenue, but wider entrances conversely will do little to deter motorists who continually use this local road to avoid the signalised intersection at the Memorial Ave/Ilam Road intersection. The Community Board should be aware of this, as although this design is supported by staff it may only have a marginal effect on the short cutting associated with these roads which was one of the issues residents wished to address.

#### Final Concept Plan

17. A "Hamilton Avenue Update" was distributed to all residents, property owners and interested parties in August 2005 advising of the feedback received, the decisions made on the form of the final plan, and that the next step would be to request that the Fendalton/Waimairi Community Board approve the work for final engineering design, and tender.
18. No adverse comments relating to the scheme option has been received back from the Community Board. All comments so far have only been positive in nature.
19. Overall the proposed scheme has majority support. For the summarised feedback from public meetings, and responses to the initial publicity pamphlet see **attachment 2**. However the two main issues, street trees and undergrounding, are discussed further below.

#### The trees in the Street

20. Questionnaires regarding the desired tree species were undertaken by the Hamilton/Chilcombe Action Group and again by the Project Consultation Leader late 2004 as part of the initial consultation. Both these survey's indicated that those who responded favoured *liquidambar* trees as a replacement tree for the existing *plane* trees. A Hamilton Avenue resident also conducted his own street tree preference survey which indicated that those who responded (fewer respondents than the earlier surveys mentioned above) would like to keep the plane trees if possible.
21. In January 2005 when the publicity pamphlet was distributed there was strong debate over the proposed removal of the existing plane trees and the proposed species of street tree in Hamilton Avenue. To this end an independent arborist's report was commissioned to look at the state of the street trees and the impact the proposed works will have on their health. This report confirmed that the trees should be removed as part of the kerb and channel replacement.
22. Also, given poor results relating to the existing carriageway strength, associated drainage problems caused by root ingress, potential basal root damage from associated works and a lowering of the crown needed to achieve a satisfactory profile to the road it became apparent the trees would need to be removed. This was also confirmed by the independent arborist's report.
23. Changes in the Electrical (Wiring Hazards from Trees) 2005 regulations also puts greater responsibility on designers and asset owners to plant trees in such a way as to ensure that their future development will have as little impact as possible regarding proximity to power lines. Removing the existing trees and looking at the new tree position within the street design will ensure every effort is made to mitigate where possible the above problems Routine maintenance will still be required as the trees reach a certain height and age.
24. The above points explain why Council staff are comfortable with the proposal to remove all the existing trees within Hamilton Ave and replant with new nursery stock. The final newsletter indicated that the trees would be *liquidambar*; this appears to be have been accepted. Careful planting of the new trees will also maximise the lighting upgrade for the street which will be done as part of the contract.

### Undergrounding

25. Residents of Hamilton Avenue were advised at the beginning of the project that the undergrounding of the overhead wiring had not been budgeted for as part of this kerb and channel renewal project. However, as part of the consultation on this project and through submissions to 2005 Long Term Council Community Plan, residents requested that the overhead wiring in Hamilton Avenue be undergrounded at the Council's expense.
26. At the time the Christchurch City Council had a policy advising that if the residents raised 50% of the cost of the undergrounding the Christchurch City Council, before the tender documents were drawn up, may consider undergrounding in conjunction with this work. As part of a review of the Christchurch City Council undergrounding policy in December 2005 the 50/50 cost sharing policy was rescinded. The Council are to consider a range of options for a resident's contribution policy later this year. The outcome of this could be that no policy is adopted particularly as there is no provision in the draft LTCCP for undergrounding of local streets.
27. Some residents believe that the renewal project should be delayed until the outcome of this policy review is known so that if they could achieve undergrounding the street would not be disrupted a second time. Council staff do not believe the project should be delayed for the following reasons:
  - A policy that may allow the residents to achieve undergrounding may not become available and the delay was therefore unnecessary
  - The asset requires renewal to avoid maintenance costs
  - If undergrounding takes place in the future construction methods such as drilling rather than trenching may be available to minimise disruption to the footpath,

### Options for Hamilton Avenue Kerb and Channel Renewal Project

28. Two options were assessed as part of the Hamilton Avenue kerb and channel renewal as follows.
29. Option (a) Maintenance of the status quo.
30. Option (b) A 9m carriageway and 6m wide narrow sections including 50 mm raised paved platforms. These traffic calming devices are to reduce speed and deter through traffic. This option also still promotes very clearly the 'avenue feel' clearly wished for by residents. At the intersection of Hamilton Avenue and Chilcombe Street there is a small roundabout with a driveable apron for larger vehicles. This provides an additional calming feature as well as mid-section 'break' to what is a long straight section of local road.

### Assessment of the Options

31. Option (a) Maintenance of the status quo - will not result in any social or cultural benefits. The existing streetscape would not be enhanced and an infrastructural asset not renewed, which would result in ongoing maintenance expenditure. Maintaining the status quo is not consistent with the Road Safety Strategy or the CCC Financial Plan and Programme 2004, and conflicts with the objectives of the Asset Management Plan, and fails to meet any of the transport management objectives.
32. Option (b) Renew the kerb and channel as per Attachment 4 - results in the following social, cultural, environmental and economic benefits:
  - Social - Reduction in speed of traffic resulting in improved safety. Improved amenity of the streetscape due to landscaping
  - Environmental – The street and its intersections are enhanced with the provision of landscaping
  - Economic - Improvement of a Council infrastructure asset

### Option Selection

33. Option (b), the preferred option was selected as it satisfies the project aim and objectives as follows:
- The existing kerb and dish channel will be replaced with kerb and flat channel and the full reconstruction and rationalisation of tree planting satisfies the needs of the City and a high percentage of residents within the street
  - The narrowed carriageway width (from 11m to 9m west of Chilcombe Street), the regularly spaced narrowings and the platforms will reduce the speed of vehicles, thereby creating a safer environment for both pedestrians and cyclists.
  - Landscape features and narrowings are planned for intersections along Hamilton Avenue. Liquidambar trees are to be planted along both sides of the road for its full length to ultimately improve on the avenue effect created by the existing plane trees where they have been planted on both sides. Spacing of trees will also help rationalise the lighting upgrade proposed as part of the works.
  - A roundabout is to be constructed on the Chilcombe Street intersection with landscaping plantings, street trees and no stopping restrictions. It also provides the additional 'feature' to the street desired by the residents group.
  - The 9m road width will allow parallel parking on both sides of the road. Given the traffic volume data collected this meets current design and policy standards
  - Traffic speed is reduced through the narrowed mid-block intersections with platforms and roundabout as vehicles travel along Hamilton Avenue. These narrowed mid-block intersections and platforms may also make Hamilton Avenue less desirable for short cutting traffic
  - The Hamilton Avenue leg of the Clyde Road and Ilam Rd intersection has been widened from 8.0 to 9.0 metres to allow the formation of two lanes for left and right turning traffic. This feature was regarded as essential by most of the residents. However as mentioned in paragraph 17 above this will make the intersection more efficient and may not contribute to discouraging short cutting traffic in Hamilton Avenue.
  - The under grounding of overhead services in Hamilton Avenue does not form part of this project and hence does not meet the residents expectations in this regard.
  - An area wide survey was carried out last year regarding student parking habits and on-street parking demands for the area. Recommendations which may affect parking within the street will fall out of this survey shortly and as such have been separated from the kerb and channel works envisaged.