

6. MANSFIELD AVENUE – KERB AND CHANNEL RENEWAL PROJECT

General Manager responsible:	City Environment, General Manager
Officer responsible:	Transport and Greenspace, Unit Manager
Author:	Kirsty Ferguson, DDI 941-8662

PURPOSE OF REPORT

1. The purpose of this report is to seek the approval of the Board to proceed to final design, tender and construction for the Mansfield Avenue kerb and channel renewal project, as shown in the plan for Board approval at Attachment 1.

EXECUTIVE SUMMARY

2. Mansfield Avenue runs between Papanui Road and Browns Road, and is 430 metres long. The existing carriageway is approximately 14.3 metres wide, with kerb and deep dish channel.
3. The surrounding area is generally residential in nature, although Nurse Maude Hospital is located at 11-35 Mansfield Avenue, and Merivale Mall is in close proximity to the Papanui Road end of Mansfield Avenue. There is thus a high demand for on-street parking at the western end of Mansfield Avenue.
4. Initial consultation was undertaken with the community in September 2004. A survey was distributed to all residents of Mansfield Avenue, asking what they would like or not like to see in their street. The key issues arising from the 25 responses received included:

Would like in the street:

- More trees and grass berms.
- Enforcement of illegal parking.
- No narrowing.
- More car parking.
- Underground wiring.
- Speed humps to slow traffic.
- Reduced speed limit.

Would not like in the street:

- Parking meters or a reduction in parking.
- Trees or garden plots.
- Provision for cyclists.
- Speed humps.
- A narrowed street.
- Parking bays.

Other comments:

- Businesses to supply off-street parking.
- Please create more parking.
- Smooth level paths.
- Keep taxi stand.
- Take the safety of the elderly into account in the design.

5. In accordance with the aims and objectives of the project, three options were developed for comparison of the Mansfield Avenue/Papanui Road intersection, along with one option for the entire street. Consultation on the preferred initial scheme design was undertaken in September 2005, and there were 22 responses received. The primary issues raised related to parking, and the width of the street and intersection. A summary of the comments received is shown at Attachment 2.
6. From these responses, it was ascertained that the residents did not support the preferred initial scheme design, and a public meeting was held on 12 December 2005 to discuss the project. There were 28 residents, business representatives, and members of the Fendalton/Waimairi Community Board present at this meeting. Four key issues were identified for further consideration and development, i.e. street width, parking, general design, and landscaping.

7. From the feedback received at this public meeting, two scheme options were developed, which were presented at a second public meeting on 13 March 2006. Approximately 28 residents, business representatives, and members of the Fendalton / Waimairi Community Board attended this second public meeting, and from the comments received, a preferred scheme design was developed.
8. The key issues raised at the second public meeting related to street narrowing, parking, footpaths, and taxi parking. A summary of the issues raised and the project team's solutions to address these issues is outlined in Attachment 2. Based on the feedback received, the following changes were made to the scheme design:
 - The proposed road width was narrowed from 13.5 metres to 10 metres between Papanui Road and the kerb build-outs at 43 Mansfield Avenue. The road width between the kerb build-outs at 43 Mansfield Avenue and Browns Road was widened from 9 metres to 10 metres.
 - All proposed time restricted angle parking and parallel parking were removed, and only existing time restricted parking is to remain.
 - The build-outs now narrow the road to 6 metres rather than being of inconsistent widths.
 - Two build-outs were removed to retain car parking space. The footpath on the south side of the street was moved to the boundary.
9. The key aspects of the preferred scheme design are outlined in paragraph 40 below, and are shown on the plan for Board approval at Attachment 1.

FINANCIAL AND LEGAL CONSIDERATIONS

10. The kerb and channel renewal works 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 \$774,016.
11. There are two land ownership issues associated with this project. At 204 and 206 Papanui Road, the footpath/berm occupies private land. However, should the property owners wish to reclaim these areas in the future, there would be no consequence to the project, so it is recommended that no action be taken on this matter.
12. There is a notable tree shown in the City Plan and on Webmap2 on the intranet. A Tasmanian Black Wood is located approximately three metres from the road boundary at Nurse Maude Hospital. A resource consent is required for any construction works that occur within 10 metres of this tree.
13. There is no heritage or historic buildings, places or objects shown in the City Plan or on Webmap2 on the intranet.
14. The City Plan defines minimum roadway widths for different road classifications. Mansfield Avenue will have a roadway width of 10 metres, which meets the permitted minimum of 9 metres for a local road. Therefore no resource consent is required for the roadway width. There appear to be no other legal implications for this project.
15. Community Board resolutions are required to approve the new traffic restrictions.

STAFF RECOMMENDATIONS

It is recommended that the Committee:

- (a) Approve the Mansfield Avenue kerb and channel renewal project to proceed to final design, tender and construction, as shown in the plan for Board approval at Attachment 1.
- (b) Approve the following traffic restrictions:

New No Stopping

- (i) That the stopping of vehicles be prohibited at any time on the east side of Papanui Road commencing at its intersection with Mansfield Avenue and extending 22 metres in a northerly direction.

- (ii) That the stopping of vehicles be prohibited at any time on the north side of Mansfield Avenue commencing at its intersection with Papanui Road and extending 13 metres in an easterly direction.
- (iii) That the stopping of vehicles be prohibited at any time on the north side of Mansfield Avenue commencing at a point 94 metres from its intersection with Papanui Road and extending 21 metres in an easterly direction.
- (iv) That the stopping of vehicles be prohibited at any time on the north side of Mansfield Avenue commencing at a point 207 metres from its intersection with Papanui Road and extending 28.5 metres in an easterly direction.
- (v) That the stopping of vehicles be prohibited at any time on the north side of Mansfield Avenue commencing at a point 283 metres from its intersection with Papanui Road and extending 20 metres in an easterly direction.
- (vi) That the stopping of vehicles be prohibited at any time on the north side of Mansfield Avenue commencing at its intersection with Browns Road and extending 13 metres in a westerly direction.
- (vii) That the stopping of vehicles be prohibited at any time on the south side of Mansfield Avenue commencing at a point 89 metres from its intersection with Papanui Road and extending in an easterly direction for a distance of 26 metres.
- (viii) That the stopping of vehicles be prohibited at any time on the south side of Mansfield Avenue commencing at a point 215 metres from its intersection with Papanui Road and extending in an easterly direction for a distance of 20 metres.
- (ix) That the stopping of vehicles be prohibited at any time on the south side of Mansfield Avenue commencing at a point 307 metres from its intersection with Papanui Road and extending in an easterly direction for a distance of 26 metres.
- (x) That the stopping of vehicles be prohibited at any time on the south side of Mansfield Avenue commencing at its intersection with Browns Road and extending in a westerly direction for a distance of 13 metres.
- (xi) That the stopping of vehicles be prohibited at any time on the south side of Browns Road commencing at its intersection with Mansfield Avenue and extending 14 metres in a north-westerly direction.
- (xii) That the stopping of vehicles be prohibited at any time on the south side of Browns Road commencing at its intersection with Mansfield Avenue and extending 15 metres in a south-easterly direction.
- (xiii) That the stopping of vehicles be prohibited at any time on the north side of Browns Road commencing at a point 15 metres southeast of its intersection with Mansfield Avenue and extending 22 metres in a north-westerly direction.

Remove existing No Stopping

- (xiv) That the existing no stopping restriction on the east side of Papanui Road commencing at its intersection with Mansfield Avenue and extending in a northerly direction for a distance of 18 metres be revoked.
- (xv) That the existing no stopping restriction on the north side of Mansfield Avenue commencing at its intersection with Papanui Road and extending in an easterly direction for a distance of 5.5 metres be revoked.

SECTION ONE - BACKGROUND ON MANSFIELD AVENUE KERB AND CHANNEL RENEWAL PROJECT

16. Mansfield Avenue runs between Papanui Road and Browns Road, and is 430 metres long. The existing carriageway is approximately 14.3 metres wide, with kerb and deep dish channel.
17. Mansfield Avenue is located in the Fendalton Ward, which falls within the jurisdiction of the Fendalton/Waimairi Community Board. It is classified as a Local Road in the Council's roading hierarchy. A traffic count was undertaken on 27/11/05 and returned a combined average daily volume of 1489.
18. The surrounding area is generally residential in nature, although Nurse Maude Hospital is located at 11-35 Mansfield Avenue, and Merivale Mall is in close proximity to the Papanui Road end of Mansfield Avenue. There is thus a high demand for on-street parking at the western end of Mansfield Avenue.
19. The Land Transport New Zealand Crash Analysis System shows that there have been two crashes recorded for Mansfield Avenue for the 5-year period up to January 2007.. One crash occurred as a vehicle failed to give way while performing a u-turn on Mansfield Avenue and was struck by a vehicle travelling along Mansfield Avenue. The remaining crash took place at the Mansfield Avenue and Browns Road intersection. This involved a vehicle failing to give way while turning into Mansfield Road and striking a cyclist who then hit a post to their severe injury.
20. Initial consultation was carried out with internal stakeholders in September 2004, which resulted in the following issues being raised:
 - **Urban Design & Heritage** – This is a Living 2 zoned area, but there is not a huge amount of residential development potential available at present. The area is slowly being eroded by business activity from the Papanui Road end. It would be good to be consistent with the works carried out along Murray Place.
 - **Transport Planning (Cycling & Pedestrians)** – Consider road crossing upgrades at the Browns Road or Papanui Road intersections.
 - **Enforcement** – The enforcement team attend numerous complaints along this street. Many of the complaints are due to people parking over vehicle entrances; however, a number of the complaints are also due to vehicles parking beside the street trees, which force the vehicles further out into the street. Consequently, the residents complain about incorrect kerb parking (i.e. more than 1 metre from the kerb).
21. Initial consultation was undertaken with the community in September 2004. A survey was distributed to all residents of Mansfield Avenue, asking what they would like or not like to see in their street. The key issues arising from the 25 responses received included:

Would like in the street:

 - More trees and grass berms.
 - Enforcement of illegal parking.
 - No narrowing.
 - More car parking.
 - Underground wiring.
 - Speed humps to slow traffic.
 - Reduced speed limit.

Would not like in the street:

 - Parking metres or a reduction in parking.
 - Trees or garden plots.
 - Provision for cyclists.
 - Speed humps.
 - A narrowed street.
 - Parking bays.

Other comments:

 - Businesses to supply off-street parking.
 - Please create more parking.
 - Smooth level paths.
 - Keep taxi stand.
 - Take the safety of the elderly into account in the design.

22. Based on the feedback received, the initiating aim of the project was confirmed as the renewal of the existing kerb and dish channel with kerb and flat channel, with the following objectives:
- To replace the existing kerb and dish channel with kerb and flat channel.
 - To highlight the change in hierarchy from Minor Arterial to Local Road at the Papanui Road intersection.
 - To develop a scheme that is consistent with work already completed in Murray Place and reflects *The Merivale Plan* for this area.
 - To provide additional parking for Nurse Maude Hospital and Merivale Mall, within a zone that does not extend beyond Nurse Maude Hospital. Beyond this zone clearly identify the transition from commercial to residential.
 - To ensure the speed environment is appropriate for a local road.
 - To improve safety for pedestrians and cyclists.
 - To develop appropriate landscaping, i.e. berms, planting and street trees.
23. In accordance with the aims and objectives of the project, three options were developed for comparison of the Mansfield Avenue/Papanui Road intersection, along with one option for the entire street. Consultation on the preferred initial scheme design was undertaken in September 2005, and there were 22 responses received. The primary issues raised related to parking, and the width of the street and intersection. A summary of the comments received is shown at Attachment 2.
24. From these responses, it was ascertained that the residents did not support the preferred initial scheme design, and a public meeting was held on 12 December 2005 to discuss the project. There were 28 residents, business representatives, and members of the Fendalton/Waimairi Community Board present at this meeting. Four key issues were identified for further consideration and development, i.e. street width, parking, general design, and landscaping.
25. From the feedback received at this public meeting, two scheme options were developed, which were presented at a second public meeting on 13 March 2006. Approximately 28 residents, business representatives, and members of the Fendalton/Waimairi Community Board attended this second public meeting, and from the comments received, a preferred scheme design was developed.
26. The key issues raised at the second public meeting related to street narrowing, parking, footpaths, and taxi parking. A summary of the issues raised and the project team's solution to address these issues is outlined in Attachment 2. Based on the feedback received, the following changes were made to the scheme design:
- The proposed road width was narrowed from 13.5 metres to 10 metres between Papanui Road and the kerb build-outs at 43 Mansfield Avenue. The road width between the kerb build-outs at 43 Mansfield Avenue and Browns Road was widened from 9 metres to 10 metres.
 - All proposed time restricted angle parking and parallel parking was removed, and only existing time restricted parking is to remain.
 - The build-outs now narrow the road width to 6 metres rather than being of inconsistent widths.
 - Two build-outs were removed to retain car parking space. The footpath on the south side of the street was moved to the boundary.
27. The key aspects of the preferred scheme design are outlined in paragraph 40 below, and are shown on the plan for Board approval at Attachment 1.

SECTION TWO - OPTIONS

28. There were three options considered for comparison for Mansfield Avenue – do nothing, a 14.3 / 9 metre wide carriageway with a mid-block single lane narrowing, and a 10-metre wide carriageway with three kerb build-outs along the street.

Option 1 – Do Nothing

29. Option 1 involves making no changes to the existing street arrangement. The existing street width is 14.3 metres with kerb and deep dish channel. Street trees are currently within the carriageway between the kerbs.

Option 2 – Nine-metre wide carriageway with single lane narrowing

30. Option 2 included three intersection arrangements put forward as part of the initial scheme development, which were incorporated into this option.
31. The first intersection option (A) had a proposed seven-metre kerb to kerb alignment to form a single lane exit onto Papanui Road. With the proximity to the Aikmans Road/Papanui Road traffic signals, turning right out of Mansfield Avenue is sometimes very difficult. The second intersection option (B) had a different kerb alignment, which created a two-lane exit. The kerb alignment in the north-eastern quadrant of the intersection is unconventional, and the project team tried to overcome the conflict with a major manhole cover. The third intersection option (C) created another kerb alignment with a five-metre wide two-lane exit to Papanui Road and a more satisfactory kerb alignment in the north-eastern quadrant of the intersection.
32. The scheme design initially planned to have a major traffic calming device located at one of the exits of Nurse Maude Hospital outside 21 Mansfield Avenue. St Albans Stream crosses the road underneath this traffic calming device and the kerb alignment provided opportunities for day lighting of the stream.
33. Option 2 incorporated the preferred alignment at the Papanui Road/Mansfield Avenue intersection, and the traffic calming devices outside Nurse Maude Hospital that do not interfere with mobile surgical truck.
34. The street had a 13.2-metre wide carriageway at the western end that allowed for angle parking along the frontage of Nurse Maude Hospital. A single-lane threshold outside 43 Mansfield Avenue marked the transition between the commercial and residential part of the street. The carriageway in the residential section was nine metres wide. Intermediate kerb extensions in the commercial zone allowed for tree planting opportunities and provided some traffic calming measures during times when parking demand is low.
35. The threshold at the Papanui Road end of the street was nine metres wide, with a five-metre wide departure lane allowing motorists to form separate queues for left and right turns. The proposed alignment tied into the existing 80-metre threshold at the Browns Road end of the street.
36. The single lane threshold had bypasses for cyclists on both sides of the street, while all other thresholds provided for two-way traffic. It was therefore not considered necessary to provide specific facilities for cyclists there.
37. It was proposed to implement time parking restrictions in the commercial part of the street following the outcome of public consultation. It was also proposed to remove all existing trees that are currently placed in the carriageway. An independent report was obtained by an external arborist (i.e. Arborlab Auckland), which recommended that all existing trees that are placed within the existing carriageway be removed due to "sustained damage and ... average or below average vitality". The arborist advised that it is likely that newly planted specimens would establish quicker and grow faster than any of these existing trees if they were transplanted.

Option 3 – Ten-metre wide carriageway with kerb build-outs

38. Option 3 was developed from the feedback received on initial scheme designs, and following two public meetings with residents, business representatives and members of the Fendalton/Waimairi Community Board on 12 December 2005 and 13 March 2006.
39. Option 3 was chosen as the preferred option, which is described in detail in paragraph 40 below, and is shown in the plan for Board approval at Attachment 1.

PREFERRED OPTION

40. The preferred option incorporates the following features:

- Full pavement reconstruction of Mansfield Avenue and the replacement of the existing kerb and deep dish channel with kerb and flat channel. There is a short length of existing kerb and flat channel at the Browns Road end that will be replaced to tie the proposed kerb line into the existing kerb.
- Relocation of three existing fire hydrants into driveways to gain additional car parking spaces.
- A ten-metre wide carriageway along the entire length of the street, except at the kerb build-outs and intersections.
- A nine-metre wide threshold at the intersection of Mansfield Avenue with Papanui Road, and an eight-metre wide threshold at the intersection of Mansfield Avenue with Browns Road.
- Three six-metre wide kerb build-outs along the street.
- Removal of all the existing trees that are placed within the existing carriageway due to “sustained damage and ... average or below average vitality”. The arborist advised that newly planted specimens would establish quicker and grow faster than any of the existing trees if they were transplanted.
- Planting of street trees in the grass berm along both sides of the street, and a mixture of tree planting and landscaping planting or grass berm in the kerb extensions. The tree species to be planted are *Acer Rubrum* (Red Maple) and *Magnolia Kobus*.
- Installation of a new footpath along both sides of the carriageway at 1.65 metres width.
- Implementation of tactile pavers at the Mansfield Avenue/Papanui Road intersection.
- “No Stopping” restrictions at the locations detailed above.

SECTION THREE - ASSESSMENT OF OPTIONS

Maintain the Status Quo

41. The option to maintain the status quo essentially means to undertake no capital works along Mansfield Avenue. This would retain the street and road environment in its existing condition, including deep-dish kerb and channel.
42. 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.
43. 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

44. Option 3 is the preferred option and satisfies most of the project objectives as follows. The preferred option also takes into consideration all identified asset management issues, best practice guidelines, safety issues, safety audit recommendations and legal considerations associated with this project.

To replace the existing kerb and dish channel with kerb and flat channel

45. The existing kerb and dish channel will be replaced with kerb and flat channel, along the entire length of Mansfield Avenue, between Papanui Road and Browns Road.

To highlight the change in hierarchy from minor arterial to local road at the Papanui Road intersection

46. The nine-metre narrowing at the Papanui Road end of Mansfield Avenue only partially meets this objective, as it does not indicate the change in hierarchy from minor arterial to local road. However, a two lane exit is considered necessary to provide an appropriate level of service for the amount of existing intersection usage. It is proposed to retain the existing threshold at the Browns Road intersection and tie into the existing eight-metre narrowing.

To develop a scheme that is consistent with work already completed in Murray Place and reflects *The Merivale Plan* for this area

47. The commercial section of Mansfield Avenue is not consistent with Murray Place, which means that this project objective can only be partially met at the same time as meeting the objective of providing additional parking. The residential section is consistent with Murray Place. *The Merivale Plan* has been found to be outdated, and accommodated the previously proposed northern arterial. Therefore this part of the objective has not been considered.

To provide additional parking for Nurse Maude Hospital and Merivale Mall, within a zone that does not extend beyond Nurse Maude Hospital. Beyond this zone clearly identify the transition from commercial to residential

48. An option was presented to the public in September 2005 for consultation. This option provided additional parking facilities for Nurse Maude Hospital and Merivale Mall staff and visitors. The additional parking facilities were in the form of P120 90° angled spaces, P120 and P30 parallel spaces. This option was strongly opposed by residents and therefore omitted from further consideration.

To ensure the speed environment is appropriate for a local road

49. The kerb build-outs will achieve a reduced speed environment compared to the existing situation even during times of low parking demand. The narrowed ten-metre wide carriageway will also help to reduce speed.

To improve safety for pedestrians and cyclists

50. The reduced speed environment will improve safety for cyclists and pedestrians. Formal pedestrian crossing points will be established at the Papanui Road end of Mansfield Avenue, including the implementation of tactile paving. A pedestrian crossing point is also provided at the kerb build-out outside the Fitzroy Retirement Village, which will aid the many elderly people walking across the road in this area.

To develop appropriate landscaping, i.e. berms, planting and street trees

51. An independent arborist report on the existing street trees was obtained and recommended that all existing trees that are placed within the existing carriageway be removed due to "sustained damage and ... average or below average vitality". The arborist advised that "it is likely newly planted specimens would establish quicker and grow faster than any of these existing trees if they were transplanted".
52. New street trees (i.e. red maple and magnolia kobus) will be planted in the grass berm along both sides of the street. No trees will be planted underneath the power lines, and all well tended planting in the berm between the existing footpath and the boundary will be retained.

Option 2

53. The initial alignment for Option 2 was rejected when feedback was received from Nurse Maude Hospital that the mobile surgical unit (a truck and trailer unit) backs into this driveway when they come to this site. It would be difficult to manoeuvre such a large truck into this driveway when it is located within the road narrowing.
54. With the heavy usage of Mansfield Avenue by residents, hospital traffic and others, it was considered that a single lane exit combined with few opportunities for right turners, (i.e. intersection option (A)) is inappropriate for the Papanui Road / Mansfield Avenue intersection. Intersection option (B) was rejected as not ideal, due to the unconventional kerb alignment of the intersection, which tried to overcome the conflict with a major manhole cover. Intersection option (C) was also rejected because of the angled kerb alignment on the north side of the road.