

2. OPAWA ROAD/PORT HILLS ROAD STAGE 3 (FROM CURRIES ROAD TO TUNNEL ROAD)

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PURPOSE OF REPORT

1. The purpose of this report is to seek the Council's approval to the Stage 3 section of the Opawa Road/Port Hills Road upgrade being removed from the Council's programme. and that Transit New Zealand, as the road controlling authority, be requested to take responsibility for the Stage 3 works instead and consider potential funding options.

EXECUTIVE SUMMARY

2. Stage 3 of the Opawa Road/Port Hills Road upgrade, between Curries Road and Tunnel Road, is a part of State Highway 73. Despite being a Transit-controlled State Highway, the Council initially allocated funding towards the upgrade in the late 1990's because the project proposed to address local residents' concerns fell well short of meeting the prevailing criteria for Transfund funding (i.e. subsidy) which is Transit's sole source of income.
3. The residents' concerns were primarily related to the effects of the high proportion of heavy vehicles using this route - namely, traffic noise, vibration, local air pollution and a lack of safe accessibility to and from residential properties. There are 31 residential properties that front on to the 1.85 km long section of road between Curries Road and Tunnel Road.
4. With the introduction of the Land Transport Management Act, the environment in which road controlling authorities are operating has now changed and Transit may be in a better position to apply for funding to Land Transport New Zealand (the former Transfund) on a social and environmental basis.

FINANCIAL AND LEGAL CONSIDERATIONS

5. The Council has allocated funds for Stage 3 of the project over the 2005/06 and 2006/07 financial years to a total of \$1,442,676 (\$1,145,848 operational and \$276,828 capital). The current estimates for upgrading the road are, however, far in excess of the budget and now range between \$4-5 million. Although Transit has agreed to the long term strategy it has not accepted any financial responsibility for Stage 3 to date.
6. The Land Transport Management Act (LTMA) came into affect in November 2003. The statutory purpose of the Act is: *"To contribute to the aim of achieving an integrated, safe, responsive and sustainable land transport system"*. The objectives of Transfund (now LTNZ) and Transit have been changed to include that they must "exhibit a sense of social and environmental responsibility". This change of objectives sets a scene for funding criteria that is now less focussed on economic efficiency.

BACKGROUND ON OPAWA ROAD/PORT HILLS ROAD - STAGE 3

7. Opawa Road (between Garlands Road and Curries Road) and Port Hills Road (between Curries Road and Tunnel Road) are part of the State Highway Network in Christchurch (SH73). Transit New Zealand is the road controlling authority responsible for improvements to this network. However, some years ago the Council and Transit decided to investigate the perceived adverse effects of traffic on this arterial route, these being road safety (particularly a lack of safe accessibility to and from residential properties), noise, vibration and local air pollution.
8. In 1999 the Council and Transit agreed to a preferred long term improvement strategy that aimed to meet the future needs of access to the Port of Lyttelton (the route forming part of the Regional Land Transport Strategy's Strategic Freight Network) in balance with the needs of the residents. The improvement strategy was to develop a purpose built, two lane facility, with separate service lanes where possible.
9. The improvements to the route were to be undertaken in three stages as follows:
 - Stage 1 was the installation of traffic signals at the Garlands Road/Opawa Road intersection, which was fully funded by Transit.
 - Stage 2 is the upgrade of Opawa Road from Garlands Road to Curries Road (0.9 km) with a new two lane limited access road and service lanes for the residents on the east side of the road. This is currently under construction and scheduled for completion by December 2005. Transit are making a partial contribution to Stage 2 based on a "maintenance cost savings" and land purchase basis.
 - Stage 3 is Port Hills Road from Curries Road to Tunnel Road (1.85km). The long term improvement strategy has not been implemented for Stage 3. The issues related to this section of road are outlined below.

EXISTING SITUATION

10. There are currently two lanes along the entire section of Port Hills Road between Curries Road and Tunnel Road, separated by a centre line. The width of the lanes varies. A right turning bay is provided for the storage facility which is located on the south side of the road between Nuttall Drive and Avoca Valley Road. On-road cycle lanes have, since the original study, been marked between Curries Road and Avoca Valley Road. There is a footpath along the south side between Curries Road and Chapmans Road. The posted speed limit is 50 km/h. The volume of traffic over this section of road is approximately 9,700 vehicles per day, increasing at a rate of 2.7% (220 vehicles) per year. Approximately 13% of this traffic relates to heavy vehicles.
11. There are designations for road widening in the City Plan that vary in width along the length of the road as follows:
 - Curries Road to Avoca Valley Road north west side, 4.9 metres to 9.9 metres (TNZ)
 - Opposite Vega Pace outside No. 254 and 250, north side, 4.9 metres (TNZ)
 - Between Chapmans Road and Tunnel Road, north side, 4.9 metres (TNZ)
 - Between Chapmans Road and Tunnel Road, south side, 8.0 metres (CCC).
12. Stage 3 is similar to Stage 2 in that the south side is predominantly residential (with the exception of the Port Haven storage facility midway), and the north side is predominantly business related. The residential properties are essentially contained within two distinct sections of the road and less densely developed than in Stage 2.
13. There are 16 residential properties with direct access to Port Hills Road between Curries Road and Nuttall Drive. The distance from the edge of the road to the front of the houses on front sections ranges from 7.5 metres to 39 metres, but generally most are set well back in comparison to the houses abutting Stage 2. Three of the properties are back sections and are between 21 metres and 54 metres from the road edge. Six of the properties are reasonably elevated above the road height.

14. There are 15 residential properties with direct access to Port Hills Road between Avoca Valley Road and Chapmans Road. There are a further three properties that are directly adjacent to Port Hills Road but have access from side streets. The distance from the edge of the road to the front of the houses on front sections ranges from 8 metres to 29 metres. Three of the properties are back sections and are between 34 metres and 64 metres from the road edge.
15. In 2001 Transit NZ undertook pavement rehabilitation between The Old Orchard and Avoca Valley Road over a distance of 600 metres. This involved widening of the seal, strengthening of the pavement structure and resurfacing with asphaltic concrete. This provided a smoother surface due to the material used and the elimination of indents due to manholes and trenches.
16. The road layout in this section is as follows:
 - The traffic lanes are 3.5 metres wide separated by a centre line
 - There is a 0.5 metre shoulder and 1.5 metre cycle lane on the eastern side
 - There is a 2.0 metre cycle lane on the western side adjacent to kerb and flat channel.

HISTORICAL AND RECENT CONSULTATION

17. In March 2000 a public meeting was held with local residents to present the long term strategy for Opawa Road/Port Hills Road. The scheme plan prepared at that time by Connell Wagner was tabled. At that stage implementation of the plan was considered to be 8-10 years away. There was general support for these plans. However, the residents who did not benefit from the service lane concept, namely the five properties between the bend known as rock bluff and at about Nuttall Drive, later confirmed in writing that they strongly objected to being ignored in the draft plans. Their concerns related to safe access to their properties and adverse effects of the heavy traffic on the road.
18. In April 2004, as part of the consultation on the Stage 2 (Opawa Road) project, these issues were once again raised by the residents in both the above-mentioned section of the road and those along the rest of the Stage 3 route.

ASSOCIATED ISSUES

19. A review of accidents occurring along this road, the predicted volumes and concerns raised by residents put the most pertinent issues for Stage 3 into three categories; safety, capacity and quality of life effects.

Safety

20. Historically, the curve between Avoca Valley Road and Vega Place has been reported as the cause of many crashes over the years. The curve has a radius of 175 metres, which should be easy to negotiate in a 50km/h posted speed limit. A study by Connell Wagner in 1998 found high speeds, particularly west-bound vehicles as they leave Tunnel Road which has a 100km/h posted speed limit, were a factor in the crashes. This being exacerbated by the semi-rural nature of the surrounding environment and a negative camber on the outside of the curve, that is the road falls away from the centreline. The accident severity was reported to be increased with vehicles hitting adjacent objects such as power poles.
21. Examination of recent crash statistics suggest that a 200 metre long section of the road around the Avoca Valley curve has a slightly higher than expected crash rate, although not sufficiently high that it would be judged as a particular "blackspot": In the five year period preceeding the Connell Wagner report (1993-1997 inclusive) there were four reported crashes at this location, three of which were *west-bound* vehicles losing control. These included a fatal accident although it may also be pertinent to note that all three involved alcohol. In the most recent five year reporting period (2000-2004 inclusive) there have been no *west-bound* loss of control crashes. There have, however, been three reported crashes in the area over this period which all occurred near Vega Place and involved *east-bound* vehicles entering the curve too quickly and losing control. One resulted in a fatal injury and alcohol appears to have been a definite factor in this crash.

22. If the current LTNZ procedures are adopted, an 'accident by accident' analysis actually reveals that the whole (1.85km long) section of road is actually much safer than average (the historical rate of 0.2 reported injury accidents per year versus a typical expected accident rate of 1.0 injury accident/year).
23. Residents have reported that accessing their properties is unsafe due to the width of the road and lack of flush median, although there is no reported crash data to support the assertion. This is not to dismiss what is a valid issue of potential/perceived danger. However, it must be recognised that there are many sites throughout the city where crashes are actually occurring and that, by virtue of limited resources for remedial action, these are the sites that should be afforded higher priority than those of perceived danger.
24. Safety for cyclists at the Tunnel Road interchange area, however, remains a concern as these road users are particularly vulnerable. A Council project to provide a recreational cycle route from Mary Duncan Park to Horotane Valley Road is planned. This will allow an off-road option for cyclists travelling between Opawa and Heathcote. However, on-road cycle safety at this location needs to be addressed for commuter cyclists.

Capacity

25. The intersection of Curries Road and Port Hills Road is predicted to exceed capacity within the next eight years. Improvement in the form of traffic signals is likely to be required and the current Stage 2 project, which includes this intersection, has been designed to accommodate this improvement when justified.
26. Transit currently has no further proposals in its 10 year plan for widening along Port Hills Road, despite their historical widening designations. The criteria for providing four lanes adopted by Transit is that it would generally only be justified when daily volumes exceed 20,000 vehicles per day. Projections of the traffic volume show that the necessity for four lanes is well over 20 years away given that, at current growth rates, an average daily volume of 20,000 vehicles would not be reached until 2042.

Quality of Life Effects

27. Whilst the total volume of vehicles is relatively low compared with other arterial roads, the proportion of heavy vehicles travelling adjacent to a residential area is high and a number of effects have been reported by the residents, these being:
 - When the pavement rehabilitation was undertaken as discussed above, vibration was somewhat reduced; however this only benefited some of the residents. There are still issues with the smoothness of the surfacing in the other section of the road.
 - The noise from engines and tyres is greatly emphasised due to the high proportion of heavy vehicles on this road compared to other residential areas in the city.
 - A sense of living in a non-residential environment is experienced by residents due to the close proximity to an industrial area. This is compounded by the high volumes of traffic and associated heavy vehicles.

OPTIONS

28. To address some or all of the issues outlined above there are several options available to the Council. The options involving physical works are all significantly over the current budget allowed. This means that options need to be considered in the context of the benefits gained.
29. The desirable outcome of any upgrade is a carriageway width that provides for the following:
 - Two 3.5 m traffic lanes
 - A 2.5 m flush median
 - Two 1.7 m cycle lanes
 - A footpath on both sides of the road.

30. Due to the terrain there are several ways to achieve the increased width. These are building retaining walls or forming wide batters. Batters are the usual roadside treatment for this type of environment as it is safer for vehicles when they leave the road at reasonable speed. However, choosing to construct batters increases the amount of property required and in some cases this is beyond the existing designation for road widening.
31. An option to provide service lanes costs around \$5 million, and an option with no service lanes around \$4 million.
32. None of the options address the capacity issue at the Curries Road intersection as this could be too far in the future to be justified as part of the Stage 3 projects but as noted above, the alignment of the Stage 2 project is such that it is compatible with the future retrofitting of the signals.

Option A – Council Upgrades the Road

33. The first option is for the Council to undertake the implementation (or lead and have the bulk of the responsibility) of Stage 3. This would potentially resolve the issues more quickly, as Transit has no budget for this work (not having any current expectation for the financial responsibility for this work). However, with the new legislative and funding environment, post LTMA, the Council assuming responsibility for Stage 3 could set an unwelcome precedent for the future. This new environment effectively removes the original justification for the Council's involvement.
34. The associated level of expenditure would represent a very significant portion of the capital available for road network improvements throughout the city.

Option B – Transit Upgrades the Road

35. This option involves the Council doing nothing to this section of the road but recommending to Transit that the issues be addressed as part of Transit's State Highway responsibilities. This would free up capital spending for other projects that, on balance, should be accorded a higher priority for city ratepayers.
36. This approach, however, leaves the implementation of Stage 3 totally uncertain as Transit has no current budget for this work. The resultant uncertainty and probable significant delays in implementing improvements may result in residents pressuring the Council to again intervene. The value of the work would result in it being placed in the "Large Projects" category, in which Christchurch has no projects being allocated a national priority (it appears that the only way Large Projects may be funded by Transit in Christchurch currently is by having regional funding allocated to it).

PREFERRED OPTION

37. Option B is the preferred option.

STAFF RECOMMENDATIONS

It is recommended that the Community Board:

- (a) Recommend to Council that the Stage 3 section of the Opawa Road/Port Hills Road upgrade be removed from the Council programme.
- (b) Recommend that Council ask Transit New Zealand to take responsibility for the Stage 3 works and look at potential funding options as soon as possible.

BOARD RECOMMENDATIONS

- (a) That the Council note that the Board it is not at present in a position to offer useful feedback on the views of the community and that the Board wishes to meet with residents to discuss the project, obtain feedback and advise the Council accordingly. The Board therefore requests that the Council defer its decision on this matter until such time as feedback has been obtained.

- (b) On the basis that the Council accepts the above recommendation, the Board constitute a working party comprising Phil Clearwater, Paul de Spa and Sue Wells, to work with staff on the consultation process to be undertaken with residents.
- (c) That the Board Chairperson be granted speaking rights when this matter is considered by the Council.