

## 25. DYERS ROAD/LINWOOD AVENUE TRAFFIC SIGNALS

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|----------------------------------------------------|--------------------------------------------------------------|
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| Corporate Plan Output: Capital Works               |                                                              |

The purpose of this report is to update the Committee on the proposal to reconstruct the intersection of Dyers Road and Linwood Avenue, and install traffic signals that will replace the existing roundabout.

### BACKGROUND

The Committee received a report on the intersection upgrade at its meeting in September 2000. A proposed timeline for the project was accepted and the proposal was approved for public consultation.

Since the meeting, the scheme plan has been refined and costings established for this major network improvement. An economic assessment for the work has been completed and submitted to Transfund for subsidy. The calculated benefit/cost ratio for the works is 12.7 with a first year rate of return of 22%.

### PROBLEM DEFINITION

The existing roundabout controlling traffic at this strategic junction of two major arterials has a poor crash record. The social cost of crashes in the five years from 1996 to 1999 is approximately \$2.6 million or \$520,000 each year (source – LTSA).

The intersection also suffers from significant traffic delays during morning peak flows when queues on the Linwood Avenue east approach can extend some 700m and into Humphrey's Drive.

Future development plans for the area include extending the State Highway around the ring road route from Main North Road, along QEII Drive, Anzac Drive, Bexley Road and Dyers Road to the roundabout at the junction of Ferry Road and Tunnel Road (SH 74).

The Council is actively developing the wetlands bordering the two arterials and plans to reconfigure the outfall drain within the Canal Reserve passing through this intersection. Linwood Avenue from Hargood/Keighleys through to Dyers Road is earmarked for widening to four lanes within the next 10 years.

The existing pavement structure at the roundabout is at the point of failure and extensive reconstruction work will be required regardless of whether this project proceeds or not.

### THE PROJECT

The project objectives are:

- To reconstruct the (failed) pavement structure at the intersection.
- To reduce the risk to motorists travelling through the intersection which has a poor crash record.
- To provide an improved level of service to motorists and other road users travelling along both Dyers Road and Linwood Avenue.
- To provide pedestrian and cycle facilities at the junction that will link with both existing, proposed and future facilities in the wetlands/reserve area and along the arterial roads.
- To widen Dyers Road south through to Tirakau Drive and provide right turn facilities at the Dyers/Tirakau intersection.
- To provide for future traffic growth along both roadways with a view to maintaining a high level of service for at least the next 10 years.
- To cater for known future (residential) subdivision growth in the immediate area and industrial expansion in the Bromley, Ferrymead and Hillsborough commercial/business zones.

Although a change in traffic control from a roundabout to traffic signals could be achieved for a lesser cost than that now calculated for the improvements, many of the above objectives could not be met and the Council would need to reprogramme further work at this junction within 5 years. Other options including reconfiguring the existing roundabout to improve safety (but not capacity), reconstructing the existing pavement within the present intersection and enlarging the roundabout have all been discounted. They would require considerable investment that would not, in terms of the objectives, provide the Council and road users with a long term solution to the problems that are occurring in the area at the present time.

## **BUDGET**

The original concept plan for installing traffic signals (budget line item in the 2000/01 Capital Works programme of \$400,000) did not include changes to the Dyers Pass Road approaches to the intersection. Pedestrian and cycle linkages are also important in this rural/residential area and existing pavements at the intersection and along Dyers Road south are under stress. Pavement costs alone have been estimated at \$326,100. The total cost of the project has now been set at \$1,244,410.

In order to progress this project, the Council will need to re programme the work to allow for the increased costs. It is anticipated that Transfund will approve the consultation/design/consents phase (\$175,000) for this year and the construction phase (\$1,069,410) next year.

With the 2001/02 budget process commencing, it is recommended that \$225,000 of the \$400,000 set aside in the 2000/01 budget for the project be transferred to 2001/02 and additional funding of \$845,000 be added to provide a total of \$1,245,000 for the completion of the work. The scheme has been audited and the economic assessment peer reviewed to comply with Transfund requirements. The highest subsidy (48%) available is expected from Transfund for this qualifying project.

## **REVISED TIMEFRAME**

The timeframe for the completion of the work has now been extended to the end of 2001. Consultation has commenced. However, we have delayed circulating the proposal to residents until there is some resolution on the funding issues (highlighted by the detailed assessment of the project) that meets all of the objectives listed earlier in this report.

If the Committee approves the project in its current form, the scheme plan attached to this report will be circulated to residents, the design commissioned and preliminaries (including a resource consent for the waterway changes) completed.

- Recommendation:**
1. That the Committee approves the revised scheme and timeframe for construction.
  2. That the City Services Committee support additional funding for the project through the 2001/02 budget process.

## **Chairman's**

**Recommendation:** For discussion.