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| <p><b>Officer Responsible</b><br/>City Streets Manager</p>                 | <p><b>Author</b><br/>Paul Burden, Area Engineer</p> |
| <p>Corporate Plan Output: Advanced Transportation Planning 9.6 text 12</p> |   |

The purpose of this report is to introduce discussion on the future of traffic calming in the city and seek the approval of the City Services Committee to engage consultants to undertake research on traffic calming as practiced in Christchurch. At the Committee’s September meeting it was decided that a subcommittee of three members would consider traffic calming and develop initiatives for trialing as part of an “action plan”. These would include non-engineering traffic calming, travel blending and 40km/hr neighbourhoods. Two separate research projects are proposed. The first will seek in the short term to investigate and **develop a process** for determining the most appropriate traffic calming device or series of devices and measures for varying traffic environments. The second project will aim at assessing the effectiveness and the impact of Local Area Traffic Management in Christchurch by quantifying the benefits and costs. This will involve a significantly greater amount of information gathering and analysis and consequently its work will span several months.

**INTRODUCTION**

There has been growing concern that some aspects of traffic calming implemented in the city are too severe and in some cases inappropriate to the traffic environment. There are claims that the road hump is being “over used” and that there may perhaps be other physical devices or that are less severe and more appropriate in certain circumstances. Elsewhere communities are achieving satisfactory traffic calming results by combining physical engineering with approaches that secure community involvement and commitment to cooperate in the interests of safer neighbourhoods. Together with these concerns is the need to constantly review how the City Streets Unit plans and implements traffic calming. The effectiveness of traffic calming as well as its impact in Christchurch warrants further study.

**RESEARCH PROPOSAL**

It is proposed to engage consultants through a bidding process for both these projects. This will offer the Committee an opportunity to review and evaluate different approaches and ensure that all its concerns are appropriately addressed.

**Project 1 - Developing a Process for Determining the Most Appropriate Traffic Calming for Various Environments**

The “Face Value” of Traffic Calming in Christchurch is the road hump. By far the single most popular traffic calming device due to its cost effectiveness. The decision to install a standard road hump(s), particularly to target the speed of vehicles is currently very much an issue of limited choice rather than necessarily being the most appropriate treatment to achieve a specific pre-determined target speed environment. In essence the decision to use a standard road hump is based on one or two good or bad experiences with other devices. There is a need to recognize that traffic environments vary from street to street.

The width of the roadway, the volume of traffic and the degree and type of land use are just some of the factors that may affect the suitability of certain traffic calming devices. These factors may well indicate that speeds higher than those able to be attained through the use of standard road humps may be entirely appropriate.

A basic consideration could be that the anticipated speed effects of a device need to be related to the physical and visual environment. An approach and treatments that are better tuned to the environment must be sought. Excessive vehicle speeds and/or volume should be calmed but it is the degree to which this is done that is the important issue. This places more emphasis on the planning process - objectives need to be specific, target speeds need to be set and these need to be linked to the particular environment.

The availability of data on different traffic calming measures in Christchurch is extremely limited resulting in reliance on Australian and European experiences. This is not always relevant to local road environments. It is important that Christchurch establishes its own framework so that its community can have greater confidence in the effectiveness and acceptance of traffic calming measures.

## **Project 2 - The Effects of Traffic Calming in Christchurch -An Examination of the Actual Benefits and Costs**

Presently the demand for traffic calming by far exceeds the supply. There are an estimated 300 traffic calming projects of varying importance outside of the current five year capital works programme. This list is growing. The City Streets Unit undertakes most traffic calming projects at the request of the residents and the Community Boards. This emphasizes that traffic calming is a function of community consultation, sound planning and design as well as having the available finance to complete the project. Although demand exceeds supply, the rate of construction is by no means low. As more roads are "calmed" the conspicuity of road humps and other such devices gets greater and greater. A recent comment from one resident summed up the situation.... "You have taken away all my short cuts through a proliferation of humps!"

It is understandable that policy and decision-makers as well as some residents view this brisk "progress" with trepidation. Is the Council doing the right thing? Has it gone too far? In the past the Council has sought "reality checks" on the traffic calming issue. The 1995 report by Mike Gadd "Traffic Calming in Christchurch" is evidence of this. These types of studies together with similar studies overseas, have proved useful as the majority endorse the view that that traffic calming is "good for us" and the "people like it". "The policy and practice of traffic calming in Christchurch seems to be working well, and is popular with the residents, not only on the survey streets, but also on the control sample of un-calmed streets" (M L Gadd Traffic Calming in Christchurch 1995).

The conclusion that things "seem" to be working well is reinforced by specific examples of crash reductions, traffic volume reductions and traffic speed reductions as well as happy residents.

A paper published in 1998 by Todd Litman from the Victoria Transport Policy Institute, Canada, has given many traffic engineering practitioners a wake-up call with respect to the traditional, somewhat finite way the success of traffic calming is judged. Litman has managed, through very extensive research, to describe a framework for evaluating the "total" effects of traffic calming. He has been able, in most cases, to quantify factors that may on the surface appear intangible. Increased comfort and mobility for pedestrians and cyclists, increased non motorized travel, reduced traffic noise and air pollution, increased street activity and neighbourhood interaction are some of the impacts he weighs against vehicle delay, traffic spillover, driver frustration and problems for cyclists and the visually impaired.

An evaluation of this wider range of impacts specific to Christchurch will allow more accurate assessment of the true value of traffic calming by examining the actual benefits and costs. It will build on the work completed by earlier studies and help to mold policies and objectives for the future.

### **COST AND FUNDING**

The cost of competing Project 1 is estimated at \$35 000 and that of completing Project 2 at \$65 000. No provision has been made in the current Annual Plan for this work and it is proposed to seek funding for Project 1 through either savings or substitutions in the six-month Annual Plan review. Funding for Project 2 will be sought through the next Annual Plan process for the 2000/01 Financial Year.

### **TIMELINE**

If the Committee is agreeable to engaging a consultant(s) to undertake these research projects then it is anticipated that the following time lines will be followed:

#### **Project 1**

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| October 99  | Finalising brief to call for registration of interest.  |
| November 99 | Registration of interest tendered.  |
| December 99 | Reports on proposed methods received and reported to City Services Committee & successful consultant engaged. |
| April 2000  | Draft submitted, reviewed and presented to City Services Committee.   |

#### **Project 2**

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|----------------|---|
| March 2000     | Finalising brief to call for registration of interest.  |
| April/May 2000 | Registration of interest tendered.  |
| May 2000       | Reports on proposed methods received and reported to City Services Committee & successful consultant engaged. |
| Sept 2000      | Draft submitted, reviewed and presented to City Services Committee.   |

- Recommendation:**
1. That the Committee endorse the need to undertake these studies.
  2. That the commissioning of a consultant for Project 1 – (Developing a Process for Determining the Most Appropriate Traffic Calming for Various Environments) in an estimated amount of \$35 000 be approved in principle subject to the approval of a study proposal.
  3. That the provision of an amount of \$65 000 as funding for Project 2 – (The Effects of Traffic Calming in Christchurch -An Examination of the Actual Benefits and Costs) be supported for inclusion in the 2000/2001 Annual Plan.

**Chairman's**

**Recommendation:**

1. That the above recommendation be adopted.
2. That the subcommittee decided upon at last month's meeting be Councillors O'Rourke, Thompson, Booth and Buck.
3. That the subcommittee meet to review the consultant's approach described in the report.
4. That a Committee seminar be arranged to include Community Boards in due course to further investigate the programme.