The Occupier 6 Bridge Street Clyde Hill Dunedin 9011

The following letter is the New Zealand Transport Agency (NZTA) response to the questions and comments raised at the Glen area community meeting held on the 9th July 2010. The following topics were raised:

- Noise
- Vibration and stability
- · Landscaping and amenity
- Other matters

Noise:

<u>Community Comment:</u> One monitoring station is not enough to generate an accurate noise contour model for the Glen.

NZTA Response:

Modelling of noise is based upon physical site information such as topography, ground cover (open, building, vegetation etc), relative height of the road, current road surfacing, and of course the traffic loading. Modelling is very useful in enabling the assessment of the actual "before and after" change in noise. Field measurement is useful however as part of a number of steps to ensure the outputs of the model are reliable. In light of concerns raised at the meeting an additional 3 sites for noise measurements are being established in the Glen area.

<u>Community Comment:</u> What is the dBA noise limit for state highway noise, and how does this compare with existing and expected noise levels.

NZTA Response:

There are no noise limits for existing roads and highways, and in this situation both the highway and the wider highway designation exist.

For new and roads to be altered, New Zealand Standard 6806² applies. For this highway there are differing threshold levels for noise being 64dBA as a preferred limit and 67 dBA as an upper limit (assessed over a 24 hour period).

² NZS6806: For new and roads to be altered New Zealand Standard 6806 applies, this is a new standard for measuring, predicting noise levels and where required, determining appropriate mitigation for road traffic noise.







¹. The term "Designation" in this instance means land designated as highway that is crown owned and administered by NZTA that has been set aside for state highway purposes. This allows NZTA to construct and maintain a state highway on this land.

In the context of this project, the noise generation involves essentially the same traffic flow but with traffic more free flowing at peak times, as well as the northbound flow being 10m closer to the Glen residents. The modelling shows that no significant increase in noise is expected even if no further mitigation is applied. Even though the modified road will meet the preferred limit of 64 dBA through appropriate design choices, steps are being taken to assist in the reduction of noise further. This will be achieved through low noise road surfacing (surfacing that is not only smooth, but has some capacity to absorb noise into it), and the use of side concrete safety barriers as opposed to the more open steel guardrail barriers. Once these treatments are complete, noise levels from the state highway to adjacent residents are expected to be less than they are now.

It is appreciated that on major urban routes in Auckland and Australian metropolitan centres there are specific noise barriers (some of considerable height to be effective). However, the traffic volumes on those routes are also much higher than on the Caversham highway.

Vibration and Stability:

<u>Community Comment:</u> Will the vibration effects of the proposed widening affect the stability of the Clyde Hill and cause damage to resident properties?

NZTA Response:

Considerable ground testing (deep and shallow) and geotechnical assessment has been done to determine the stability of Clyde Hill. The new highway construction largely avoids excavation into Clyde Hill (apart from excavation for the relocated walkway as it links into Bridge Street, and levelling of the ground between the existing highway and the rail line). Once complete the new construction will add considerable 'ballast' at the base of the hill, which is expected to improve the overall hill stability in terms of deep seated failures.

The bridge foundations will also be bored, as opposed to being 'driven in', to avoid any deep seated construction vibration.

Earth stability monitoring stations will be put in place, as a precautionary measure. This involves the drilling and placement of tubes that detect and record any earth movement.

Home owners closest to the highway (between St Heliers Court and Bridge St) will be offered a photographic survey paid for by NZTA to record the condition of their property prior to construction. We would encourage those home owners to take up this offer. Once the works are complete this photographic record will provide clarity around whether any changes have occurred to a property before or since the survey was carried out. NZTA's consultant will contact residents prior to construction to discuss whether people wish to have their property photographed.

Landscaping and Amenity:

<u>Community Comment:</u> Planting on top of retaining wall to be changed from deciduous to evergreen for screening of the state highway.







NZTA Response:

There is limited space on top of the wall, particularly at the northern end, to support large vegetation and this may restrict the amount of screening which can be achieved. We have proposed planting of evergreen shrubs, (up to 1.5m), along the length of the wall, with some deciduous trees where space is possible, which will filter views of the highway. Deciduous trees would provide an attractive addition of autumn colour or spring flowers to the street. These can be changed to evergreen if most residents would prefer this. We are happy to consider any suggestions on plantings.

Community Comment: Retaining walls should have an attractive pattern.

NZTA Response:

Please find attached the preliminary design for the pattern being considered for the concrete facing panels of the retaining walls in the Glen Area. This design is preliminary and at the detailed design stage some changes may be introduced. If you have any comment on this plan please contact us.

Other Matters

<u>Community Comment:</u> The safety of the cycle/ walkway coming out onto South Road.

NZTA Response:

Where the cycleway/footpath comes out onto South Road a central refuge will be constructed in the middle of South Road so people who chose to cross at this point will have the choice to cross one lane at a time.

<u>Community Comment:</u> The cycleway/footpath currently terminates at South Road. Can this path continue to the Oval?

NZTA Response:

The footpath comes across State highway owned land onto the Dunedin City Council (DCC) footpath that currently extends to the Oval/South Road intersection. An improvement to this path would be the responsibility of DCC, and we will raise this with them.

Community Comment: Does NZTA need resource consent to complete the work?

NZTA Response:

As the project falls within State Highway One's designated corridor and within local road reserve no resource consent is required.

Community Comment: Widen Bridge St and move it back into the slope.







NZTA Response:

This suggestion would affect land outside the NZTA designated corridor and involve substantial disruption to Bridge Street residents and purchase of properties. The current project does not require land to be purchased and the construction of the proposed project will only temporarily affect residents.

Construction Process:

Construction is programmed to start in November 2010 but potentially could be delayed until 2011.

Downer will be the contractor undertaking this work and will inform the residents in the area when construction is about to begin.

Construction Contact: Duncan Kenderdine

Contractors Team Leader

Phone: 478 8214

If you require further information and wish to speak to someone on the responses discussed above please call me on 471 5591, or email the project team on: cavershamhighway@nzta.govt.nz.

Yours sincerely

Julie McMinn

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Communications Manager





