

MWH Ref: Z19269-31

20 December 2010

Queenstown Lakes District Council
Private Bag 50072
10 Gorge Road
QUEENSTOWN 9348

Attention: Denis Mander

Dear Denis

**Shotover Country
Plan Change 41
Transportation Review**

Refer your email of 3 November 2010.

1. Background

The Shotover Country Development located adjacent to the Ladies Mile requires Plan Change 41 to be adopted by Council to allow the development to progress.

A Transportation Assessment Report, February 2010, has been prepared by Traffic Design Group to address transportation issues associated with the development.

We have been requested to provide a review and assessment of the transportation issues contained in the Plan Change 41 proposal.

2. Consideration

Travel Management Plan

Correspondence supplied identifies the need for an effective Travel Management Plan (TMP) for the proposed scheme change. It is identified in correspondence (QLDC [Karen Page] / Clarke Fortune McDonald; March 2010), Items 9, 10 and 11, that additional details have been sought for clarification.

The details in Plan Change 41 (Version 3) fail to outline how the proposed scheme change meets the desire of QLDC for an appropriate Travel Management Plan. Specifically, the March 2010 correspondence identifies the need to consider these aspects between the plan change area and the adjoining areas.

A review of the information supplied would indicate that these items have not been addressed to a standard that would allow a considered assessment.

It is considered that the current application does not address the issues of:

- Effective TMP processes for the proposed plan change, given the physical separation created by the existing Shotover River Bridge on the SH;
- Cycle connectivity to the greater area;

- Pedestrian connectivity to the greater area;
- The desired linkages via Public Transport (PT) and the surrounding environs.

On a larger scheme analysis, it is noted that there will most probably be a strong linkage to other development areas already under consideration by QLDC, being Queenstown Gateway, Pak n Save (Glenda Drive) and the Eastern Access Road linkage.

These other developments will have a substantial impact on the development of a suitable PT network, and could be problematic. For example, a person could catch the commuter bus from Lake Hayes / Arrowtown at the proposed Park and Ride facility to access the Queenstown Gateway Area, but may not be able to catch an effective link to the Remarkables Shopping Precinct without transferring to another bus.

Failure to have an effective link between origin and destinations (such as the proposed plan change) may result in generated single vehicle trips due to frustrations with accessibility. This lack of access may deter the use of alternative modes of transport, resulting in a non-compliance with the greater QLDC TMP objectives.

It is understood that these issues are not directly attributable to the proposed change, but never-the-less may be a result of a greater issue.

Consideration should be given to the impact of the proposed plan change on the greater desire for a shift in transport mode for the greater area.

Park and Ride

The proposed development identifies the installation of a Park and Ride facility on Howards Drive, at or near the curve on Howards Drive. (Refer to Structure Plan: X – 25).

Observations on site indicate that there are a number of vehicles already parking on the shoulder of Howards Drive, at the SH intersection. The creation of the proposed new development area would have an increased impact on this type of requirement.

The Structure Plan identifies the creation of up to 40 car parks for a development of up to 300 lots. The Structure plan proposes the need for 2 bus stops.

The Structure Plan does not identify the catchment pool for the proposed Park and Ride facility. It is assumed that the facility will have a catchment area greater than just the proposed development. Care should be taken to ensure that the proposed Park and Ride facility meets the required need for the greater area, and not just the proposed development.

The park and ride facility is generally well located in terms of both the existing (Lake Hayes Estate) and future developments. The SH separates the catchment area to the north from the proposed facility. This may present a barrier to the effective use of the Park and Ride facility if effective linkages are not created.

Cycle Connectivity

The proposed scheme identifies the objectives of "...implement measures to reduce the overall vehicle demand..(12.25.2 viii)", "...provide high levels of connectivity..connectivity throughout the zone and adjacent communities..cycle networks (12.25.3 Objective 7; 7.5)",

Comments are as follows:

- The scheme does not mention any aspect of the connectivity from the proposed development to the existing (and future) developments in and around Glenda Drive and QEC.
- The TDG report (February 2010) details that there is minor pedestrian activity, and that there would not be a demand with the proposed development.
- The proposed development is within 5 km of the Frankton Area and is within easy use of cycle to access shopping and recreational activities at the QEC.
- The proposal does not acknowledge the cumulative effect of adjacent developments, nor the connectivity that may be required.
- Assessment on site reveals that the existing SH bridge over the Shotover River is not suitable for general commuter cyclist use. The bridge is narrow and has steep gradients at each end.
- The existing Shotover River Bridge is unsuitable for children travelling to school (assumed Frankton) and the QEC.
- Cyclists accessing Lake Hayes Estate and the proposed development would cycle over the left turn lanes for Stalker Road and Lower Shotover Road. This would present a road safety risk, especially with a less confident cyclist, in a high speed environment.
- Cyclists crossing the SH are at risk with high speeds on the Highway, especially school children and the less experienced cyclist.
- It is understood that an alternative cycle path is proposed for the old Shotover River Bridge. An assessment of route length indicates that this route (approx 2.4 km) requires a substantial deviation away from the probable desire path along SH 1 (approx 1.5 km). This may encourage inappropriate use of the SH bridge.
- Whilst not stated, it is assumed that a well formed and integrated off road cycle facility is proposed for the development.
- Cycle connectivity in the development area between the proposed housing areas and the park and ride is appropriate, however there are sections of new road that could have steep gradients and may pose issues with cyclists. This could be addressed in the final design.
- Cycle connectivity for the Lake Hayes Estate (existing) and the new park and ride has some engineering issues with steep gradients on the existing off road paths, and a moderate gradient on the road.

The proposed development will rely on the creation of the alternate cycle access over the Shotover River to satisfy the level of connectivity required for the development. It is assessed that this path will be circuitous and may discourage people from using cycle as a transportation mode. This may result in single vehicle use being taken as the dominant transport form.

Pedestrian Connectivity

The proposed scheme identifies the objectives of "...implement measures to reduce the overall vehicle demand..(12.25.2 viii)", "...provide high levels of connectivity..connectivity throughout the zone and adjacent communities..pedestrian networks (12.25.3 Objective 7; 7.5)".

Comments are as follows:

- The scheme does not mention any aspect of the connectivity from the proposed development to the existing (and future) developments in and around Glenda Drive and QEC.
- The TDG report (February 2010) details that there is minor pedestrian activity, and that there would not be a demand with the proposed development.
- The proposed development is within 5 km of the Frankton Area and is within easy use of pedestrian movement to access shopping and recreational activities at the QEC. This can include recreational walker, and school children.
- The proposal does not acknowledge the cumulative effect of adjacent developments, nor the connectivity that may be required.

- Assessment on site reveals that the existing SH bridge over the Shotover River is not suitable for pedestrian use. The bridge is narrow, does not have suitable pedestrian facilities / protection, and has steep gradients at each end.
- The existing Shotover River Bridge is unsuitable for children travelling to school (assumed Frankton) and the QEC.
- It is unsafe for pedestrian to use the existing SH bridge.
- It is understood that an alternative pedestrian path is proposed for the old Shotover River Bridge. An assessment of route length indicates that this route (approx 2.4 km) requires a substantial deviation away from the probable desire path along SH 1 (approx 1.5 km). This may encourage inappropriate use of the SH bridge.
- Whilst not stated, it is assumed that a well formed and integrated off road pedestrian facility is proposed for the development.
- Pedestrian connectivity in the development area between the proposed housing areas and the park and ride is appropriate, however there are sections of new road that could have steep gradients (through terraces) and may pose issues with pedestrians, especially mobility impaired or prams etc. This could be addressed in the final design.
- Pedestrian connectivity for the Lake Hayes Estate (existing) and the new park and ride has some engineering issues with steep gradients on the existing off road paths, and a moderate gradient on the road.

SH Intersections

The proposed Structure Plan is high level and does not provide much detail in the linkages with the SH. It is noted in the Structure Plan that the proposed development will place additional demand for vehicle access to the SH network (Section 12.25.2 viii).

The Traffic Design Group Transportation Assessment Report (February 2010) highlights that the development will reach a LOS F situation for right turn (out) in the PM peak. This will have a significant impact on the safe operation of the intersections associated with the proposed development. Frustrations and delays will result in unsafe movements being undertaken at these intersections.

The TDG report details that intersection improvements will be required prior to 2021. The plan change does not provide extensive detail on how they propose to address the issues raised as a result of the proposed development. However, the TDG report does detail the effect of a roundabout at the Stalker Road intersection. It is assumed that this will be the dominant access point for the proposed development.

The report does not address the provisions for the Howards Drive intersection. The TDG report again details that this will reach LOS F by 2021 for the right turn out. The Howard Drive intersection is located some 850 m east of the Stalker Road intersection. Careful consideration will be required for the effect of the two intersections in close proximity. Specifically, the effect of queue length on the operation of each intersection is required to ensure that the queues do not affect the safe and efficient operation of the Highway.

The delays during PM peak will also have a significant impact in the operation of a reliable and effective PT service. This item is a subject of request for additional information in the QLDC letter of March 2010. The information supplied does not address this issue.

The function and form of the intersections is a serious issue that will require extensive work to address. The current plan change could result in both QLDC and NZTA being in a position of having to undertake expensive remedial work in the future.

Internal Intersections

Of note is the proposed intersection between the current Howards Drive and the link to the new development. Howards Drive currently negotiates a right / left movement as it descends down the Lake Hayes Estate development. The intersection will be formed in a sag vertical curve with a curvilinear approach from the Lake Hayes Estate.

The proposal details the formation of a T intersection at this junction. It is not clear on the dominant route, but it is assumed from the details given that the flow through into the proposed Shotover Country development will have dominance, as they are the through leg.

Sight lines observed on site would indicate that the proposed intersection could result in substandard sight lines for turning traffic. In addition, the intersection could result in Lake Hayes Estate traffic having to give way to through traffic, while negotiating an up-hill gradient.

3. Summary

The above assessment primarily focuses on considered deficiencies in the Plan Change 41 transportation report. Some of the deficiencies relate to more global issues (eg public transport) and/or are closely linked with other large scale developments in the Frankton area.

Yours sincerely

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Copy to: Mark Townsley, Lakes Environmental