4 March 2019

Maryhill Limited

C/- Clark Fortune McDonald

PO Box 553

Queenstown, 9348

Attention: Nick Geddes

Dear Nick,

Glenpanel Special Housing Area
Frankton-Ladies Mile Highway (SH6), Queenstown
Transport Assessment

The purpose of this letter is to provide a high level transport assessment for the proposed Glenpanel, a Special Housing Area (SHA) subdivision at Lower Shotover.

It is noted that this assessment adopts the WSP Opus Integrated Transport Assessments provided as part of the Detailed Business Case to the Housing Infrastructure Fund which outlines transport initiatives to support the provision of 1,100 residential dwellings in the Ladies Mile area. This assessment therefore focuses on the internal local roading network.

# Background

Glenpanel is to be located on a site to the north of Frankton-Ladies Mile Highway (SH6) legally described as Lots 4 & 7 D.P.463532 & Sections 42 – 44 Block III Shotover Survey District. The site is currently accessed via an unformed legal road and over land owned by others. There is a single farm access directly from SH6 which makes use of an unformed legal road to the east of the site and located at the Howards Drive (Lake Hayes Estate) intersection with SH6.

The site is within the Rural General Zone of the Operative QLDC District Plan.

# Existing Transport Network

The site only has a road frontage onto SH6.

There are no footpath or cycle trails which pass near to the site although the Shotover Country Club (opposite) has recently provided a portion of footpath on the opposite side of SH6 from the site. It is possible that in the future this could link into other pedestrian and cycle trail networks within the area.

The nearest public transport route, Lake Hayes Estate to Frankton (and Jacks Point) passes the site. The nearest bus stops on this route are within Lake Hayes Estate. This bus service has a frequency of 30 minutes during the am and pm peak periods (06:00 to 09:00 and 15:00 to 18:00) with an hourly service throughout the remainder of the day (09:00 to 15:00 and 18:00 to 22:00).

# Proposed Transport Improvements

Glenpanel is within the Indicative Master Plan area for the anticipated Ladies Mile residential development which has been added into the Council’s Lead Policy for assessing Special Housing Area requests. Initially it is proposed to develop 1,100 residential dwellings in the Ladies Mile area which includes 640 dwellings to the north of SH6, in the area between Stalker Road and Howards Drive. WSP Opus have undertaken an Integrated Transport Assessment[[1]](#footnote-1) (ITA), to identify and assess possible capacity improvements within the greater transport networks to accommodate the initial 1,100 dwellings. QLDC, ORC and NZTA have since agreed a programme (Programme 3) of improvements to the state highway network along with public transport initiatives. These improvements have approved funding through the Housing Infrastructure Fund (HIF).

This programme of improvements is outlined within the ITA (refer Appendix A) and are expected to achieve transport improvements at and beyond the site that will support this proposed development. It is noted that the major element which will facilitate access to this site is the establishment of the roundabout[[2]](#footnote-2) at the intersection of SH6 with Howards Drive.

The programme of improvements also includes the provision of a pedestrian and cycle infrastructure including funding towards a SH6 underpass at Howards Drive to allow pedestrians and cyclists to cross SH6 as well as the provision of high quality walking and cycling connections which would improve the appeal of these modes of transport for local and possibly commuting journeys.

The outline staging provided for Programme 3 suggests that the upgrade of the Howards Drive/SH6 intersection to a roundabout, SH6 underpass at Howards Drive and provision of high quality walking and cycling connections would be undertaken prior to complete houses[[3]](#footnote-3).

# Proposed Development

The proposed development, Glenpanel subdivision, is expected to create up to 150 residential dwellings. The proposed subdivision will be accessed directly from SH6 utilising the proposed roundabout at the intersection of SH6 and Howards Drive to be developed under the HIF programme of works.

The layout of the proposed roundabout intersection is provided in the WSP Opus Ladies Mile HIF, Integrated Transport Assessment (June 2018)[[4]](#footnote-4).

# Transport Effects

The proposed development is to be accessed directly from SH6 using a new roundabout at the intersection of Stalker Road and SH6 which will include an approach from the Site. This assessment of transport effects considered the ability to create an appropriate vehicle access within the site as well as connections to alternative transport networks such as public transport or walking/cycling infrastructure.

## Road Networks

### Frankton Ladies Mike Highway (SH6)

As noted in Section 3, Glenpanel is part of the greater Ladies Mile SHA residential developments which includes 1,100 residential dwellings in the Ladies Mile area including 640 dwellings in the vicinity of the site. To support this future development a number of network improvements (road, pedestrian, cycle and public transport) have been identified as Programme 3[[5]](#footnote-5) and have approved funding through the Detailed Business Case to the Housing Infrastructure Fund.

The findings of the WSP Opus ITA and the proposed programme of improvements (Programme 3) have been adopted as providing any necessary transport improvements to support this proposed development at the site access from SH6 and beyond from the site. This includes the provision of a roundabout at the intersection of SH6 with Howards Drive which will include an approach from the site.

### Internal Transport Network

The conceptual site layout provides an internal road network based on the requirements of the current NZ Standard (NZS4404:2010) and the QLDC Land Development and Subdivision Code of Practice based on that standard. Based on the information provided it is expected that it will be possible to create an appropriate internal road network which will meet current guidance.

QLDC Code of Practice provides definitions of place and link context[[6]](#footnote-6). The proposed development fits within the definitions of ‘suburban’ based on the density of residential development and, based on the residential nature, ‘live and play’. The roads within the development have been designed with these contexts in mind. The development will generally be made up of moderate to high density residential dwellings with a lower priority for the provision of residential parking with public transport on nearby connector/collector road links. The new roads will generally meet the requirements of suburban live and play as presented in Table 3.2 – Road design standards[[7]](#footnote-7).

The road network provided allows for extensions to adjacent properties to the east and west owned by others. Provision for these extensions will ensure that the internal road network may be extended to serve a greater number of dwellings in the future thus providing facilitating the future development of adjacent properties as anticipated within the Ladies Mile Indicative Master Plan.

However, one element which may need further consideration is the Classification of the roads serving development beyond the site, to the east and west. The basis of this will be the number of dwellings served. If a road is anticipated to serve grater that 200 dwellings or is provides circulation within the local area then these road would be classified as connector/collector roads. This classification will dictate both:

* The road details, road reserve width, movement lane width, target operating speed and management of pedestrians and cycles, and

The acceptable location of the intersection within the local road network.

At this conceptual stage of design the important elements are width of the road corridor and distance of the intersection from the roundabout intersection at SH6. If the roads providing access to development beyond the site are considered as connector/collector roads the intersection would be a minimum of 150m[[8]](#footnote-8) from the roundabout intersection with SH6.

**Recommendation:** That further consideration be given to roads providing access to adjoining land including their potential classification and the location of internal intersections within the conceptual layout.

## Public Transport Connectivity

The Lake Hayes Estate to Frankton (and Jacks Point) bus service passes the site on SH6. At this stage the nearest bus stops are in Lake Hayes Estate which are remote from the site. It is possible that the proposed development would be added to this route, or as further development occurs within adjacent land that a bus service would be extended through the site. It is therefore appropriate that the proposed development allow for bus stops to cater for future bus routes through the site.

**Recommendation:** That the development of the internal road network is designed to allow for future bus services to pass through the site. This should include street design which allow for bus movements and inclusion of bus stops within the internal street design.

## Walking and Cycling

The Queenstown trails network provides opportunities for walking and cycling for leisure and commuting. The growth of e-bike sales will increase the use of this mode of transport for both leisure and commuting. The proposed subdivision is remote from the current trail network and has limited connectivity to the existing residential areas of Lake Hayes Estate and Shotover Country.

The programme of improvements also includes the provision of a pedestrian and cycle infrastructure including:

* A SH6 underpass at Howards Drive to allow pedestrians and cyclists to cross SH6, and

Provision of high quality walking and cycling connections which would improve the appeal of these modes of transport for local and possibly commuting journeys.

It is expected that the internal transport network include to the extension of these connections into the site as well as connections through the site to land beyond to the east and west of the site.

**Recommendation:** The that the internal transport network allow for the extension of pedestrian and cycle networks into the site and beyond to connect with future development on adjacent land to the east and west of the site. This may include the provision of footpaths and on-street cycle facilities and/or the provision of an off-street walking/cycling trails network.

# Summary

It is proposed to develop Glenpanel as a Special Housing Area (SHA) subdivision to the north of the Frankton-Ladies Mile Highway (SH6). The site is legally described as Lots 4 & 7 D.P.463532 & Sections 42 – 44 Block III Shotover Survey District.

The proposed subdivision is to be accessed directly from SH6 and will be reliant on the construction of transport network improvement works to be undertaken with funding approved through the Housing Infrastructure Fund. This will include:

* Construction of a new roundabout at the SH6 intersection with Howards Drive (Lake Hayes Estate) which will include an approach from the site for access,
* A SH6 underpass at Howards Drive to allow pedestrians and cyclists to cross SH6, and

Provision of high quality walking and cycling connections which would improve the appeal of these modes of transport for local and possibly commuting journeys.

These transport network improvements will also include further works away from the site to improve roading network capacity away from the site. These projects have been considered in the WSP Opus Integrated Transport Assessments. The Glenpanel subdivision is considered to be part of an overall approved development of 1,100 residential dwellings anticipated by the Indicative Master Plan for the Ladies Mile area.

The on-site transport infrastructure is expected to be designed and constructed in accordance with the QLDC Land Development and Subdivision Code of Practice. A number of recommendations have been provided to guide this design this includes:

* That further consideration be given to roads providing access to adjoining land including their potential classification and the location of internal intersections within the conceptual layout.
* That the development of the internal road network is designed to allow for future bus services to pass through the site. This should include street design which allow for bus movements and inclusion of bus stops within the internal street design.

The that the internal transport network allow for the extension of pedestrian and cycle networks into the site and beyond to connect with future development on adjacent land to the east and west of the site. This may include the provision of footpaths and on-street cycle facilities and/or the provision of an off-street walking/cycling trails network.

I consider that the propose Glenpanel subdivision can be appropriately accessed through provision of proposed transport networks improvements works to be provided through the Housing Infrastructure Fund. On-site it is considered that appropriate transport can be provided and a number of recommendations are suggested to guide the design process and to minimise any potential transport effects to a point which is acceptable.

Should you require any further information please contact me.

Yours sincerely,

**Jason Bartlett**

CEng MICE, G.IPENZ

Traffic Engineer

1. WSP Opus Integrated Transport Assessment

The following WSP Opus Integrated Transport Assessments are attached.

* Ladies Mile HIF, Integrated Transport Assessment (June 2018), and
* Memorandum – Ladies Mile HIF Integrated Transport Assessment Amendment A, Detailed Analysis of Programme 3 (9 July 2018).
1. Refer WSP Opus Ladies Mile HIF, Integrated Transport Assessment (June 2018) and the subsequent Memorandum – Ladies Mile HIF Integrated Transport Assessment Amendment A, Detailed Analysis of Programme 3 (9 July 2018). These are provided in Appendix A. [↑](#footnote-ref-1)
2. Note, the WSP Opus Integrated Transport Assessment also identifies that this could be a traffic signal controlled intersection, although NZTA is unlikely to meet NZTA safety and efficiency objectives. [↑](#footnote-ref-2)
3. Refer WSP Opus Memorandum – Ladies Mile HIF Integrated Transport Assessment Amendment A, Detailed Analysis of Programme 3 (9 July 2018). Staging of projects is provided in Table 3. [↑](#footnote-ref-3)
4. Refer WSP Opus Ladies Mile HIF, Integrated Transport Assessment (June 2018), Appendix D – Designs. [↑](#footnote-ref-4)
5. Refer WSP Opus Ladies Mile HIF, Integrated Transport Assessment (June 2018) and the subsequent Memorandum – Ladies Mile HIF Integrated Transport Assessment Amendment A, Detailed Analysis of Programme 3 (9 July 2018). These are provided in Appendix A. [↑](#footnote-ref-5)
6. Refer QLDC Land Development and Subdivision Code of Practice, Section 3.2.4 Place and link context and Table 3.1 – Land use and area type matrix describing typical place and transport context. [↑](#footnote-ref-6)
7. Refer QLDC Land Development and Subdivision Code of Practice, Table 3.2 – Road design standards. [↑](#footnote-ref-7)
8. Refer QLDC Land Development and Subdivision Code of Practice, Section [↑](#footnote-ref-8)