



Simplicity Living Limited

Lower Shotover Road & Frankton-Ladies
Mile Highway

Integrated Transport Assessment

July 2026

Executive Summary

Simplicity Living Limited (**SLL**) is proposing to develop an integrated multi-unit residential development at Lower Shotover Road (**Project**). This Project will be adjacent to Lower Shotover Road and Frankton-Ladies Mile Highway (**SH6**). The Site is within the Te Pūhahi Ladies Mile (**TPLM**) Zone. Within the Structure Plan the Site is identified as medium density residential precinct at Sub-areas A & B.

At the site, SH6 and the surrounding local road network is (currently) congested, particularly noticeable during the AM peak period. The TPLM Zone acknowledges this and is focused on providing transport alternatives whilst traffic congestion remains. The TPLM Zone provisions reflect its underlying Transport Strategy to:

- Achieve minimum density required to support a viable Public Transport (**PT**) network.
- Improve PT effectiveness and efficiency for travel within the district by providing bus lanes and bus stops on SH6.
- Improve active travel opportunities for trips within TPLM and for journeys to, and from, the nearby communities including Shotover Country, Lake Hayes Estate and Frankton.

The TPLM Zone provisions seek to provide and improve alternative transport offerings whilst traffic congestion (queuing and delay) on SH6 and the local road network will remain. These Zone provisions promote specific PT and active travel infrastructure triggers (bus lanes, bus stops and active travel links) to enable a modal shift from private vehicles to a greater use of public and active travel modes of transport.

The Queenstown Public Transport Business Case¹ acknowledges the existing traffic congestion. To maintain a functioning road network mode shift to PT is necessary. To accommodate the anticipated growth of Queenstown and the communities of Lake Hayes Estate, Shotover Country and development at TPLM, the PT mode share target has been set with ongoing PT capacity improvements planned. This strategy, set within the Queenstown Public Transport Business Case, is to provide additional capacity (increased frequency and bus capacity) to match the anticipated growth and demand.

The Project will include the development of 1,085 apartments (residential units) within an integrated multi-unit residential development for long term residential rental. There will be a mixture of apartment types including 45% one bedroom, 48% two bedroom and 7% three bedroom apartments. The Project will include a leased office space, café and communal areas for shared social and work spaces for residents within the Site. A separate commercial lot allows for a local shopping centre for convenience retail (dairy, café, restaurant etc.) within the Site. These elements of the Project will assist in reducing the need for travel beyond the Site.

The Project includes onsite cycle parking with internal and external active travel links to encourage residents to utilise alternative travel modes, walking, cycling or micromobility, for access to local facilities and nearby communities such as Lake Hayes Estate, Shotover Country and Frankton. The Project will provide population density to improve the viability of PT services with improved PT infrastructure including Bus Stops and a bus lane on SH6. This will encourage the use of PT for access to other destinations within the District.

The Project is in alignment with the overall Queenstown Public Transport Business Case and the Transport Strategy which underlies the TPLM Zone through the provision of active travel and PT options for future residents.

¹ Refer Otago Regional Council, Queenstown Public Transport Business Case dated 6 May 2024.

The Project will not remove congestion (delay and queuing) from SH6 or the surrounding local road network. However, as part of the Project, SLL is proposing to install signals at the SH6 intersection replacing the existing roundabout at Stalker Road (and Lower Shotover Road) and proposing to provide a new signalised intersection onto the east west collector road (Site access intersection) from Lower Shotover Road. These signalised intersections will enable the road controlling authorities (NZTA and QLDC) to manage traffic congestion and to prioritise specific traffic flows or demands. For instance, prioritise arterial traffic on SH6, or local traffic (Stalker Road and/or Lower Shotover Road). Installing signalised intersections will also allow for traffic management which is not currently available with the existing roundabout intersection. The signalised intersection allows for safe pedestrian (and cycle) movements with signalised pedestrian crossing providing access to PT services (bus stops) and activities within residential communities beyond the site.

The TPLM Zone includes a number of transport triggers to enable development (eg signalised intersections, bus stops, bus lanes and active travel links) across the entire Zone. To confirm, the Project does not trigger all of the required transport infrastructure, but does trigger some. This assessment considers the potential transport effects of the Project taking into account the increased demand on the state highway and local network including the transport network upgrades being proposed by SLL as part of the Project.

The Project includes a new signalised intersection at the existing SH6 intersection with Stalker Road and Lower Shotover Road. This, along with other committed and consented signalised intersections on SH6 allows the road controlling authorities (NZTA and QLDC) to manage transport demands to match the network capacity which is restricted at the Shotover River bridge. Traffic modelling has been utilised to assess congestion (delay and queuing) at this intersection and within the surrounding network. with a modal shift which is in the range anticipated by the Queenstown Public Transport Business Case and the TPLM Transport Strategy.

The transport modelling undertaken suggests that there will be some traffic effects. During the PM peak periods there will be some delay and queuing within the surrounding road network, particularly SH6 westbound. This delay will be minimal and results from prioritising the larger eastbound traffic flows during this period. Overall, any change on the existing road network will not be noticeable. It is acknowledged that during the PM peak period traffic flow eastbound over the Shotover River bridge is already restricted due to existing congestion to the west of the bridge in Frankton.

During the AM peak period there will be delay on SH6 and Lower Shotover Road, the overall level of queuing and delay will be similar to the existing road network. However, there will be noticeable delay increases on the side roads, Stalker Road and Howards Drive which will affect the existing residents of Lake Hayes Estate and Shotover Country. This is compounded for the current bus route (Route 5 Lake Hayes Estate) which will incur delay when exiting Lake Hayes Estate (Howards Drive) and when passing through Shotover Country (Stalker Road) to the Stalker Road intersection with SH6. It is expected that the delay on these side roads will lead to peak spreading. The current peak is generally between 8am and 9am. It is possible that some commuters and residents will shift their travel to time to avoid congestion on the road network resulting in peak spreading which may be a noticeable effect.

The signalised intersections within the transport model have been configured to optimise (minimise) overall delay which favours the largest traffic flow. Signalised intersections can be managed to favour any traffic flow, so it is possible to configure the signal timing to favour minor local traffic flows or prioritise bus routes. Additionally, the TPLM Zone rules means that future development within the Zone will also provide additional transport infrastructure such as bus lanes between Howards Drive and Stalker Road and/or on Stalker Road. Sensitivity testing has shown that additional bus lanes will reduce bus delay providing greater

improvement to the PT network. This means that as TPLM is developed there is scope for further PT networks improvement which will encourage greater use of the PT services.

Overall, the Project will make a fair and reasonable contribution towards the construction of the transport infrastructure identified to support the whole TPLM Zone and will give effect to the Transport Strategy underlying the TPLM Zone. This includes the provision of signalised intersections, bus stops, bus lane and active travel routes. The Project is in alignment with the TPLM Zone, the underlying Transport Strategy, and the Queenstown Public Transport Business Case providing real travel choice for residents of TPLM and the surrounding communities. The overall transport infrastructure will promote active and public transport modes over the current reliance on the private car.

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1 Introduction

1.1 Background

Simplicity Living Limited (**SLL**) is proposing to develop an integrated multi-unit residential development at Lower Shotover Road (**Project**). This Project will be adjacent to Lower Shotover Road and Frankton-Ladies Mile Highway (**SH6**). Access to this development will be via a new intersection from Lower Shotover Road. The Project includes associated enabling works, activities and necessary infrastructure, including the provision of transport infrastructure within the development and within the surrounding road network.

1.2 Purpose

The purpose of this report is to provide an Integrated Transport Assessment (**ITA**) for the Project. This assessment provides details of the Site, zoning and surrounding transport environment (Section 2). A detailed description of the Project including proposed transport network upgrades is provided in Section 3. Section 4 provides an overview of the Project and its compliance against the transport provisions of the Queenstown Lakes District Council (**QLDC**) District Plan. Section 5 provides an assessment of transport effects of the Project. This is primarily informed and guided by traffic modelling undertaken by BBO in consultation with NZ Transport Agency Waka Kotahi (**NZTA**). This modelling is provided with the substantive application. A summary of this assessment is provided as a conclusion to this report.

1.3 Author's Details and Compliance with Code of Conduct

This ITA has been completed by Jason Bartlett. Jason has over twenty five years' experience in road design, network management, traffic and transportation engineering. Since April 2008 Jason has been working as a traffic and transportation engineer in Queenstown operating his own traffic and transport engineering consultancy, Bartlett Consulting, established in July 2012. Jason's has provided expert transport advice for multiple projects in Queenstown Lakes including to the QLDC Independent Hearings Panel in respect of the Te Pūtahī Ladies Mile Plan Change. Jason's qualifications and experience are provided in Appendix A.

Although this Project is seeking approvals under the FTAA, Jason has read the Code of Conduct for expert witnesses contained in the Environment Court Practice Note 2023. He has complied with the Code in the preparation of this report, and unless stated otherwise, the assessment is within his area of expertise, and he has not omitted to consider material facts known to him that might alter or detract from the opinions he expresses.

2 Site

2.1 Location

The Site comprises of three titles at 12 & 14 Lower Shotover Road (Lot 3 DP606744, Lot 2 DP617529 & Section 9 SO485598). The site location is shown in **Figure 1** below.

The Site currently provides for pastoral farming with frontages onto Lower Shotover Road and Frankton-Ladies Mile Highway (SH6). The Site has two vehicle accesses, from Lower Shotover Road and SH6.

Figure 1 – Site Location, image from QLDC Webmaps



2.2 Planning Environment

2.2.1 Zoning

The Site is within the Te Pūhahi Ladies Mile (TPLM) Zone within the QLDC Proposed District Plan (PDP). Within the TPLM Zone Structure Plan the Site is identified as medium density residential precinct at Sub-areas A & B.

2.2.2 Te Pūhahi Ladies Mile (TPLM) Zone

The TPLM Zone has been approved through the Streamlined Planning Process and became part of the PDP in 2024. A number of the current Zone provisions and rules applying to the TPLM Zoning have been adopted from the Transport Strategy which was relied upon through the plan variation process.²

The Transport Strategy outlines a number of transport measures supporting the future residential development of the TPLM zone, and tested these through a series of transport modelling evaluations. This modelling was undertaken prior to the TPLM Plan Change Hearing and is based on the existing road network, at that time, including the existing roundabout at SH6 intersection with Stalker Road, and the existing 80km/hr speed limit on

² Refer Candor³, Te Pūhahi Ladies Mile Masterplan Transport Strategy, dated 08/03/2022.

SH6 being retained. The premise of the traffic modelling was to establish the transport measures needed to accommodate and support residential development within the TPLM Zone.

The Transport Strategy modelling considered a number of scenarios for the TPLM area including 2400 residential units across the zone, this equates to a density of approximately 40 residential dwellings per hectare. Within the Transport Strategy (and the subsequent evidence of Colin Shields³) this was considered the minimum density required at TPLM to support viable public transport (PT) services along SH6 and in the surrounding (existing) residential communities⁴. This is now the minimum required density across the medium and high-density precincts of the TPLM Zone (refer TPLM Zone, rule 49.5.22 Residential Density).

The initial Transport Strategy traffic modelling considered a possible PT mode share of approximately 22% of trips (westbound) in the weekday AM peak period and approximately 31% (eastbound) in the PM peak period. This initial traffic modelling resulted in increased queuing on SH6 during both the AM and PM peak periods. Even with the increased PT mode share, the modelling predicted an increase in queuing within the road network of approximately 1km westbound in the AM peak and 1.6km eastbound in the PM peak period. This traffic model also included the removal of 180 vehicle trips from Lake Hayes Estate and Shotover Country during the AM peak period to reflect a new high school within TPLM (refer TPLM Zone, rule 49.4.6).

Sensitivity testing with further PT transport modelling resulted in the Transport Strategy identifying a target PT mode share for development within TPLM of 43%. The Transport Strategy also identified a target PT mode share for the existing communities of Lake Hayes Estate and Shotover Country of 31% in the AM peak period (including trips removed to represent the effect of a proposed new high school at TPLM) and 36% during the PM peak period. These targets were considered to provide significant relief to the transport network, importantly, queuing on the transport network (SH6) being no worse with TPLM development than the existing scenario.

The Transport Strategy was primarily focussed on reducing vehicle trips, particularly peak period trips over the Shotover River. This has resulted in the following direction from the Transport Strategy:

- Reducing the need to travel beyond TPLM, including integration of leisure (Parks and open spaces), commercial and education within the Zone.
- Encouraging active travel modes for local trips including provision of cycle parking, active travel paths and crossing (signalised intersections) within the Zone and with connections to nearby activities and communities.
- Ensuring viable and convenient PT for trips within the district (Frankton, Queenstown, Arrowtown etc.) with minimum residential density and provision of infrastructure (bus lanes, bus stops and pedestrian connections).

The focus on mode shift has been reflected in the final planning provisions of the TPLM Zone with the requirements for; minimum density, multiple and convenient commercial areas, provision of PT infrastructure and active travel connections. This includes provision of bus

³ Refer Te Pūhahi Ladies Mile Plan Variation, Statement of Evidence of Colin Robert Shields (29 September 2023).

⁴ Refer Candor3, Te Pūhahi Ladies Mile Masterplan Transport Strategy (08/03/2022), Sections 6.3.1 & 6.3.2, and Te Pūhahi Ladies Mile Plan Variation, Statement of Evidence of Colin Robert Shields (29 September 2023), Paragraph 33.

lanes on SH6 and Stalker Road⁵ which are applicable to all residential precincts and development to the north of SH6 within TPLM.

The TPLM Zone rules are based on the underlying Transport Strategy, the important findings being that traffic (queuing and delay) on SH6 will remain similar to existing and that specific PT and active travel infrastructure triggers (bus lanes and active travel links) to enable the identified shift from private vehicles to a greater use of public and active travel modes of transport.

2.3 Existing Transport Network

2.3.1 State Highway Network (NZTA), SH6

The Frankton-Ladies Mile Highway (SH6) is an arterial road and a regional state highway providing a major inland transport route through the Central Otago region. It is managed and maintained by NZTA, and is subject to Limited Access Road (LAR) controls under the Government Rounding Powers Act (1989). Traffic flow data for SH6 is collated by NZTA. Table 1 below provides a summary of the latest traffic count data for SH6 near the Site.

Table 1 – SH6 Traffic Count Data⁶, provided as Average Annual Daily Traffic (AADT)

Site	2020	2021	2022	2023	2024
SH6 – Shotover-before Lower Shotover Rd, ID:00600991	15,068	15,826	16,682	18,294	19,284

This traffic counter is located adjacent to the Site and provides a good representation of the average traffic flows passing the Site. The traffic count data shows a continued increase in annual average traffic volumes on SH6 suggesting that the current (2026) traffic volume on SH6 will be approximately 21,000vpd.

SH6 currently has an 80km/hr speed limit adjacent to the Site increasing to 100km/hr to the east of the site.

In this vicinity (for the section between Frankton and Arrowtown-Lake Hayes Road) SH6 is subject to weekday, peak period congestion in the westbound direction (towards Frankton) for a period of up to an hour during the weekday AM peak period. This is a result of the combination of the SH6 traffic flow and the two westbound traffic lanes merging to a single traffic lane between the SH6/Stalker Road roundabout and the SH6 Shotover River bridge. This merge limits the AM peak period westbound traffic flow over the Shotover River bridge to approximately 1,600 vehicles per hour (vph). During this period, the observed westbound queuing extended to McDonnell Road, 1.6km from the SH6 intersection with Stalker Road, with a total observed delay of approximately 15 minutes⁷. Queueing on SH6 was only observed over a 1 hour AM peak period generally between 8am and 9am. This queuing affect westbound bus services (Route 2, Frankton – Arrowtown) which will be delayed during the AM peak period.

During the PM period there is a similar congestion to the west of the Shotover River, although in the opposite direction. This occurs where two eastbound traffic lanes merge to a single traffic lane between Frankton (SH6/Hawthorne Drive roundabout) and the SH6/Tucker Beach Road intersection (Quail Rise). Exact timing of the queuing to the west of the Shotover River

⁵ Refer QLDC Proposed District Plan, Chapter 49, Te Pūhahi Ladies Mile Structure Plan, rule 49.5.39 Staging development to integrate with transport infrastructure.

⁶ From NZTA open data, State Highway Traffic Monitoring – Annual.

⁷ Bartlett Consulting, SH6/Lower Shotover Road traffic queue observations and surveys, 27 May & 11 June 2026.

has not been investigated, although anecdotal evidence suggests that queuing is observed between 3pm and 6:30pm. This means that there is a consistent and moderated eastbound traffic flow over the Shotover River bridge during this time. No queueing is observed on SH6 to the east of the Shotover River during the PM peak period.

Overall, there is observed delay on SH6 during the AM peak period. During this period, generally between 8am and 9am, all vehicles are delayed including local bus services between Arrowtown and Frankton. In the PM period there is delay to the west of the Shotover River, generally between 3pm and 6:30pm.

2.3.2 Local Road Network (QLDC)

Lower Shotover Road is a local road providing access to the Dalefield area and is classified as an arterial road within the QLDC road network.⁸ This road has an 80km/hr posted speed limit and has a current (2026) daily traffic flow of approximately 6,000vpd.⁹ Detailed weekday traffic data from QLDC includes hourly traffic flows during the AM peak and PM peak periods which has been used for transport modelling in support of the current application. In the current road environment (2026) there is very little observed queuing during the AM peak period on Lower Shotover Road. There is some queuing in the PM peak period although sporadic, the queue regularly grew to 130m length with a delay of up to 1.5 minutes (90 seconds) generally between 4:30pm to 5:30pm.¹⁰

Stalker Road provides a local road link to Shotover Country and other communities to the south of SH6. It is classified as an arterial road within the QLDC road network¹¹ and is accordingly expected to prioritise through-traffic movements with a generally lesser role for property access.

Stalker Road is subject to a posted speed limit of 40km/hr and enables as an access to a large urban area with a current (2026) daily traffic flow of approximately 7,500vpd.¹² Stalker Road includes queuing in the weekday AM peak period, where the observed queue length on Stalker Road back from the intersection with SH6 was up to 420m to the Toni's Terrace roundabout with an observed delay time of 8 minutes.¹³ The local bus service (Route 5, Queenstown – Lake Hayes Estate) uses Stalker Road meaning that bus service are delayed during the AM peak period due to existing congestion. It is noted that observed AM hourly traffic flows shows reduced traffic flows between 8am and 9am¹⁴ suggesting that local residents are choosing to travel at different times, or using alternative travel modes, to avoid travel during the AM peak period, ie. making travel decisions to avoid congestion. No queuing has been observed on Stalker Road in the PM peak period.

Overall, there is existing queuing within the current local road transport environment. During the AM peak period this occurs on Stalker Road approaching the roundabout intersection with SH6, which includes delay to local bus services between Lake Hayes Estate and Queenstown.

⁸ Refer QLDC Proposed District Plan, Chapter 29 Transport, 29.13 Schedule 29.1- Road Classification.

⁹ From QLDC traffic count dated 12/04/2024 showing a daily traffic flow of 5,638vpd averaged weekly. Although this seems to reduce in a traffic count dated 19/04/2026 showing a daily traffic flow of 5022 vpd averaged weekly.

¹⁰ Bartlett Consulting, SH6/Lower Shotover Road traffic queue observations and surveys, 27 May & 11 June 2026.

¹¹ Refer QLDC Proposed District Plan, Chapter 29 Transport, 29.13 Schedule 29.1- Road Classification.

¹² From QLDC traffic count dated 2/04/2025 showing a daily traffic flow of 7,353vpd averaged weekly.

¹³ Bartlett Consulting, SH6/Lower Shotover Road traffic queue observations and surveys, 27 May & 11 June 2026.

¹⁴ From QLDC traffic count dated 2/04/2025 including hourly traffic flow data.

In the PM peak period there is some delay on Lower Shotover Road approaching the roundabout intersection with SH6.

2.3.3 Public Transport

Local bus services within the Queenstown region are operated by Orbus and the Otago Regional Council (ORC). Two existing bus services pass near to the Site. These are:

- Route 5, Queenstown – Lake Hayes Estate. This route passes through the SH6/Stalker Road roundabout, with the nearest bus stop located approximately 600m to the south of the Site on Stalker Road within Shotover Country. This service operates on an hourly frequency between 6am and 10pm, increasing to a half hour frequency between 6am and 9am in the morning and in the afternoon between 3pm and 7pm.
- Route 2, Frankton – Arrowtown. This route passes along SH6 adjacent to the Site although there are no current bus stops on this route near the Site. This service operates an hourly frequency between 6am and 10pm, increasing to a half hour frequency between 6am and 9am in the morning and in the afternoon between 3pm and 7pm.

There is currently no bus priority (i.e. separated bus lanes or other features) for these bus services meaning that bus passengers experience the same level and nature of congestion as general traffic. This means that Route 5 (Lake Hayes Estate), Queenstown bound service is delayed on Stalker Road in the AM peak period. Likewise, Route 2 (Arrowtown), Frankton bound service is delayed in the AM peak period on SH6. Both routes eastbound services will be delayed in Frankton during the PM peak period. Accordingly, the level of bus patronage from Lake Hayes Estate/Shotover Country is relatively low.

2.3.4 Walking and Cycling

The nearest walking and cycling trails to the Site share the road on Lower Shotover Road with crossing facilities over SH6 via the existing SH6/Stalker Road roundabout intersection. This also provides a pedestrian and cycle access to Spence Road and the Old Shotover Bridge which connects with the Queenstown Trails network including the Countryside and Twin Rivers Trails linking to Frankton and other areas within the wider Wakatipu region.

There are also pedestrian and cycle trails on the southern side of SH6, opposite the Site, which connect the residential areas of Shotover Country, Queenstown Country Club and Lake Hayes Estate.

2.4 Future Transport Network Improvements

Relevant to the Site, there are a number of possible and planned future changes to the surrounding transport network, including:

- SH6 Ladies Mile Network Optimisation which is identified within the QLDC Long Term Plan. It is understood that this project includes a number of components of the SH6 and local road transport improvements to accommodate the development of the wider TPLM zone.
- PT improvements under the (ORC) Queenstown Public Transport Business Case.
- Further transport upgrades which are triggered by provisions within the TPLM Zone to enable development within specific parts of the Zone.

QLDC and NZTA have indicated that full funding for these transport upgrades is not secured, and that any delivery would be 10+ years away. As a result, developers of the TPLM area are encouraged to contribute to the construction of infrastructure themselves should they wish to progress development in advance of the above plans and projects.

The Queenstown road network includes congestion in the peak periods. This is a result of restricted capacity at the Shotover River Bridge and on Frankton Road (SH6A) there is also expected to be a similar issue at the Kawarau Falls Bridge (SH6, Southern Corridor). There are currently no plans to provide additional vehicle capacity at any of these locations with a primary focus being on the movement of people through the PT improvements.

2.4.1 SH6 Ladies Mile Optimisation (NZTA)

NZTA has planned intersection improvements to upgrade the SH6 intersection with Howards Drive from the current priority controls to a signalised intersection. This will include the construction of a new signalised intersection which will also provide an access to TPLM (Sub-area C & D). These works commenced in January 2026 with below ground service relocations, the intersection works (above ground) will commence later this year (2026) with anticipated completion anticipated in March 2028. To implement the signalised intersection the works will require a reduced speed limit on SH6, to 60km/hr between Howards Drive and Frankton, to facilitate the installation the signalised intersections at Howards Drive and second new signalised intersection as the consented access intersection at 429 Frankton-Ladies Mile Highway (refer RM240476 & RM241049). The use of a signalised intersection in these locations allow the existing congestion (queuing and delay) to be managed to optimise intersection efficiency whilst also allowing pedestrian (and cycle) connectivity with integrated signalised pedestrian crossings.

The installation of a signalised intersection at the SH6 Howards Drive intersection will provide required infrastructure and enable development within the central area of the TPLM Zone. This intersection upgrade provides access to Sub-areas C, D & E which includes commercial activities including the proposed Woolworths supermarket (refer RC Application RM250300) and other future commercial lots (refer RC Application RM260436).

2.4.2 Queenstown Public Transport Business Case

It is acknowledged in the Queenstown Public Transport Business Case¹⁵ that to maintain a functioning road network in Queenstown a significant mode shift to PT is necessary. This includes the restriction caused by the existing SH6 Shotover Bridge where the current road network is operating at capacity during the weekday AM peak period in the westbound direction and eastbound in the weekday PM peak period. To accommodate the anticipated growth of Queenstown and the communities of Lake Hayes Estate, Shotover Country and development at TPLM, the PT mode share needs to increase. The Business Case identifies that the target mode share for PT, over coming years is as follows:

- At 2027 the PT target mode share at the SH6 Shotover River bridge is 18% during the AM peak period and 18% during the PM peak period by utilising the current (existing) PT network.
- By 2039 the PT mode share target at the SH6 Shotover River bridge is 25% during the AM peak period and 29% during the PM peak period with increased capacity (greater frequency and larger buses).
- By 2053, the target PT mode shared at the SH6 Shotover River bridge needs to increase to 34% in the AM peak period and 35% in the PM peak period which will require further capacity improvements.

There are a number of PT improvement anticipated under the Queenstown Public Transport Business Case which will support development at TPLM including:

¹⁵ Refer Otago Regional Council, Queenstown Public Transport Business Case dated 6 May 2024.

- Route 5, Queenstown – Lake Hayes Estate. Increased frequency, every 15 minutes throughout the day (to 7pm) with larger buses introduced between 2027-2030. In the longer term (2030-2033) this will increase service frequency to one bus every 15 minutes through to 10pm and larger buses.
- Route 2, Frankton – Arrowtown. Increased frequency, every 30 minutes throughout the day (to 7pm) with larger buses introduced between 2027-2030. In the longer term (2030-2033) this will increase service frequency to one bus every 15 minutes through to 10pm and larger buses.

These services are expected to pass through proposed bus stops at TPLM (on SH6). The increased bus frequency and increased bus size will improve the overall PT capacity between TPLM and Frankton/Queenstown. ORC have suggested that their bus services will operate larger 18m articulated buses suggesting considerably greater PT capacity than is possible with the current network.

To further improve PT the proposed services outlined by the Queenstown Public Transport Business Case also require additional bus infrastructure such as bus priority (bus lanes etc) to maintain journey time reliability and, in some cases, so that journeys by PT will be similar or faster than by the private car. Bus priority in the form of separate bus lanes has been proposed by NZTA and formed part of the original NZUP (NZ Upgrade Programme) Queenstown Package. Unfortunately, the SH6 bus lanes are no longer being funded by NZTA and are expected to be delivered by developers through the progressive development at TPLM.

2.4.3 District Plan Transport Upgrades

Various transport infrastructure improvements are required via land use development triggers or thresholds set out in the TPLM Zone. These triggers are based on the Transport Strategy which informed the TPLM Zone and are allocated to development of specific Sub-areas within TPLM. In relation to the Project area, within TPLM sub-areas A & B, (this Site) it includes:

- Access intersection from one of either SH6 (Stalker Rd intersection) or Lower Shotover Road/Spence Road (Sub-area A).
- Upgrade Lower Shotover Road at Spence Road (shared between Sub-areas A & K)
- Signalisation of the SH6/Stalker Road intersection including at-grade pedestrian and cycle crossings across both roads (shared between Sub-areas A, B & K)
- Bus stops on SH6 at the SH6/Stalker Road intersection (one on each side of SH6, shared between Sub-areas A, B & K), and
- Active travel link to SH6 bus stops at SH6/Stalker Road intersection (shared between Sub-areas A, B & K).
- SH6, a westbound bus lane between Howards Drive and the Shotover River bridge (shared with Sub-areas A, B, C, D, E & K).
- SH6 Frankton bus lanes including a westbound bus lane between Hardware Lane to SH6A (Frankton Road) and SH6 eastbound bus lane from SH6A to Hawthorne Drive (shared with Sub-areas A, B, C, D, E & K).
- Stalker Road, a northbound bus lane to SH6. The Project will include a short portion of this bus lane to provide priority at the new signalised intersection with SH6. (shared with Sub-areas A, B, C, D, E, F, G1 & K).

Based on the District Plan provisions¹⁶ this transport infrastructure is required to be in place prior to occupation of residential precincts within the TPLM Zone, north of SH6, and development in the Open Space Precinct, south of SH6. Alternatively, a non-complying resource consent activity is required. These transport infrastructure elements are attributed to multiple individual Sub-areas (and ownership) suggesting a shared approach to the delivery of transport infrastructure as development within the TPLM Zone progresses.

2.4.4 Alternative Transport Modes

There are other transport upgrades proposed which would contribute to the improvement in the availability and capacity of active transport and PT between TPLM and Frankton. They are generally in the early stages of development.

Active Travel Connections

There is a Queenstown Trails Trust (QTT) proposal to improve the active travel trail between TPLM and Frankton to include a new bridge over SH6 (at Jims Way). This project would improve the pedestrian and cycle commuter and leisure route between the Old Shotover Bridge (walking and cycling bridge over the Shotover River) and Frankton.

Gondola Network

It is understood that Southern Infrastructure is seeking consent to construct Stage 1 of a gondola network linking Queenstown Airport, Frankton bus station and Queenstown town centre providing an alternative PT network. If approved and constructed, this project will initially improve journey times between Queenstown and Frankton. Stage 2 extension of this project is expected to include a gondola link to TPLM meaning that PT will not need to rely on the current road network. This would improve PT travel times and reliability between TPLM, Frankton and Queenstown.

¹⁶ Refer QLDC Proposed District Plan, Chapter 49, Te Pūtahi Ladies Mile Structure Plan, rule 49.5.39 Staging development to integrate with transport infrastructure.

3 Proposed Development

3.1 Overview

The **Project** will include the development of the Site to include 1,085 apartments (residential units) within an integrated, multi-unit residential development for long term residential rental. This will include:

- 489 (45%) 1 bedroom apartments,
- 524 (48%) 2 bedroom apartments,
- 72 (7%) 3 bedroom apartments,
- Café and office areas for lease with separate car parking,
- Communal areas, shared social and work spaces, for residents within the Site, and
- Commercial Lot for a local shopping centre to enable convenience retail (ie. store, café, restaurant etc) and office type activities within the Site.

The Project will include on-site parking of a single allocated car park space per residential unit. Each residential unit will also have access to a single cycle parking space. Additional guest and accessible parking will also be provided within the wider Site and within the public road network (east west collector road).

The initial development at the Site will include 100 apartments (residential units) to be constructed at the earliest opportunity to provide on-site accommodation for construction workers. This will reduce the traffic generation for worker transport to, and from, the Site for all future construction stages.

3.2 Transport Objectives

The Project will align, as far as is practicable, with the transport related elements of the TPLM Zone and District Plan provisions. The focus being to reduce the reliance on the private car by reducing the need to travel beyond TPLM and delivering a transport network to allow and encourage a shift to PT and active travel (walking and cycling) modes.

Internally, the Project will create a road network with low operating speeds that focus on urban design to improve the liveability and attractiveness of the area. The Project will create a transport network which allows for pedestrians and cyclists to share the internal road space, as well as developing specific paths for pedestrians (footpaths) and shared use for active modes including walking, cycling and other micromobility travel choices.

To reduce the need to travel, the Project includes areas within the Site to allow for local workspaces (shared and leased offices) and commercial such as convenience retail, café and restaurant type activities.

The Project will include a pedestrian network connecting the resident neighbourhoods and apartment buildings with local commercial areas and PT networks. This will include footpath links to adjacent areas within TPML Zone and the Structure Plan. This will allow and encourage walking as a mode of travel to access local facilities within the Site and within the TPLM area such as future schools and commercial activities.

Internal cycle parking will be provided with a network of low speed roads and separate shared paths. These will allow for connections through TPLM to services and activities in the nearby communities of Lake Hayes Estate, Shotover Country, Queenstown Country Club and Frankton. This will promote cycling (and other micromobility modes) within TPLM and to nearby communities for leisure, employment, education and community activities.

PT (bus) stops are provided on SH6 along with a portion of bus lane on SH6 (between Stalker Road and the Shotover Bridge) to allow for PT connections to Frankton, Queenstown, and Arrowtown. This provides the opportunity to utilise PT for travel to (and from) employment, education and community activities within the surrounding district.

PT stops and routes have also been planned within the east west collector road to allow this to accommodate potential future bus routes should these eventuate.

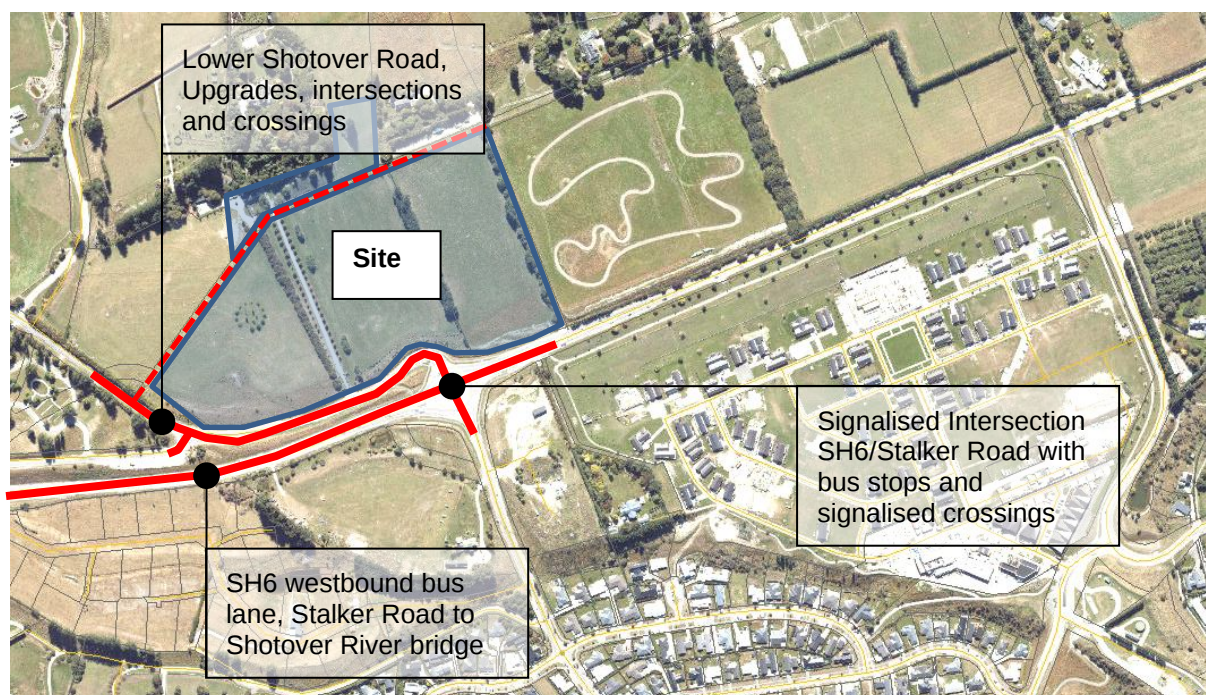
3.3 External Transport Works, SH6 and Lower Shotover Road

The Project is proposing a range of transport upgrades, which includes the following works within the existing road network:

- Construction of a signalised intersection at SH6 with Stalker Road and Lower Shotover Road,
- Construction of a westbound bus lane between Stalker Road and the Shotover River bridge, and
- Reconstruction of Lower Shotover Road to include an upgraded intersection with Spence Road with a shared crossing to Spence Road and a new signalised intersection at the east west collector road with signalised crossings for access to the Site.

These external transport works are shown in the following Figure 2 with further detail drawings provided in the BBO Modelling Report.¹⁷

Figure 2 – External Transport Works, image from QLDC Webmaps



These works make up a large portion of the transport infrastructure required under the TPLM Zone (which are set out in Section 2.4.3 above). These transport upgrades are required to support and enable occupation of the low and medium residential precincts to the north of SH6.

¹⁷ Refer BBO, Simplicity Living; Te Pūhahi Ladies Mile Queenstown, Transport Modelling Technical Memorandum (22 May 2026) attached as Appendix B.

3.3.1 SH6 Stalker Road Intersection

The existing roundabout intersection of SH6 with Stalker Road is proposed to be reconstructed as a signalised intersection as part of the Project. Signalising this intersection provides greater management of traffic demand to manage peak period queuing to match the available traffic capacity at the Shotover River bridge which has a single traffic lane in each direction.

The signalised intersection allows NZTA to prioritise different traffic movements; for instance they can prioritise SH6 regional/arterial traffic or local traffic (Stalker Road and/or Lower Shotover Road) and can adjust these priorities at different times of the day. The signalised intersection means that queuing can also be managed which is not possible with the existing roundabout intersection. While the signalised intersection allows queuing to be managed, it will not remove congestion from the network. The current congestion is a result of the reduced traffic capacity at the Shotover River bridge and the lane merging arrangements on either side of this bridge.

The proposed intersection reconstruction will include pedestrian and cycle (shared) crossings to allow for safer access to bus stops on the southern side of SH6 and a pedestrian (and cycle) link to Shotover Country.

3.3.2 Public Transport Network

The Project will improve PT and the connections between the Site and the local bus services, Routes 2 (Arrowtown) & 5 (Lake Hayes Estate), by way of:

- Installing new bus stops on SH6 to allow for convenient connections to the bus services on Routes 2 & 5. These bus stops will be located adjacent to the new SH6 signalised intersection with Stalker and Lower Shotover Roads which will include signalised crossings within the intersection, and
- Delivering a new SH6 westbound bus lane between the SH6/Stalker Road signalised intersection to the Shotover River bridge to improve westbound bus services to Frankton and Queenstown.

These measures will provide improved PT connectivity and will result in minor journey time improvements westbound between the SH6/Stalker Road intersection and the Shotover River bridge especially during the AM peak period where buses will bypass some peak period queuing.

3.3.3 Lower Shotover Road

Lower Shotover Road provides access to the Project area and SLL propose to upgrade this road to an urban collector road. This will provide an essential collector road link between SH6, the Project, and the wider TPLM Zone via the east west collector road (Collector Type A¹⁸). The Lower Shotover Road upgrades will include:

- A new crossing over Lower Shotover Road to Spence Road providing an active travel connection between the Site, the TPLM Zone and Frankton via Spence Road and the Old Shotover Bridge being parts of the Queenstown Trails Network (QTT) including the Twin Rivers Trail and Frankton Link,¹⁹
- A new intersection of Lower Shotover Road with Spence Road as a priority-controlled T-intersection, and
- A new signalised intersection of Lower Shotover Road with the east west collector including pedestrian (and cycle) crossings over Lower Shotover Road.

¹⁸ Refer QLDC Proposed District Plan, Chapter 49, Te Pūtahi Ladies Mile Structure Plan.

¹⁹ Refer Queenstown Trails Trust trails map (queenstowntrails.org.nz).

Lower Shotover Road is to be upgraded to an urban collector road (Figure E23 road type²⁰) which will include the construction of a signalised intersection with the east west collector road (Collector Type A²¹). The intersection of Lower Shotover Road with the east west collector provides access to the Site, the Project and the TPLM Zone.

3.4 On-site Transport Network

3.4.1 Collector Road

The TPLM Zone provisions allow for the Collector Type A,²² a collector road providing access to the Zone from the local road network. The PDP allows this to intersect with either SH6 or Lower Shotover Road in order to provide access to the Site and the Zone.²³ The Project will include the construction of a portion of the east west collector (Collector Type A) within the Site. This will provide a collector road link from Lower Shotover Road to the Site and to other areas within the TPLM Zone to the west.

The east west collector road is to be formed as a Figure E23 road type²⁴ with a typical 8.4m (two way) carriageway and separate (indented) public parking. The east west collector will include a footpath on the northern side and a 3m shared path (active travel route) on the southern side, adjacent to the proposed residential activity. The east west collector road will be vested with QLDC as a public road including paths (footpath and shared path) and public roadside parking.

The design of this road with roadside parking, footpath and shared path has been developed through consultation with QLDC and the neighbouring development to the east (429 Frankton-Ladies Mile Highway) to ensure a consistent approach to the road and its design.

The legal road reserve for the new collector road will include the existing 10m legal (unformed) road which dissects the Site.

3.4.2 Internal (Local) Roads

SLL is proposing to establish a road network within the Site which are to remain in private ownership. The predominant purpose of this road network is to provide access to private parking either as roadside (indented) parking, within external (at grade) parking areas or within parking buildings. The private road network will be accessed via vehicle crossings from the east west collector road. The onsite private road network will be formed as Figure E22²⁵ road type with a typical 6m two-way carriageway width and separate (allocated) roadside parking and with footpaths and shared paths.

The design of this private road network has been purposely kept tight and compact to achieve a low operating speed of 30km/hr (or less), so that cyclists may share the road carriageway with vehicles. This is achieved by utilising a large car (B99 vehicle) as the design vehicle and using a larger vehicle such as the 8m service vehicle (refuse vehicle/fire appliance) as a check vehicle.

²⁰ Refer QLDC Land Development and Subdivision Code of Practice, Table 3.3: Road design Standards.

²¹ Refer QLDC Proposed District Plan, Chapter 49 Te Pūtahi Ladies Mile, Structure Plan.

²² Refer QLDC Proposed District Plan, Chapter 49 Te Pūtahi Ladies Mile, Structure Plan.

²³ Refer QLDC Proposed District Plan, Chapter 49 Te Pūtahi Ladies Mile, rule 29.5.21 Development shall be in accordance with the Structure Plan, part a.

²⁴ Refer QLDC Land Development and Subdivision Code of Practice, Table 3.3: Road design Standards.

²⁵ Refer QLDC Land Development and Subdivision Code of Practice, Table 3.3: Road design Standards.

3.4.3 Onsite Parking

The Project will include 1,105 on-site car park spaces for residents. Car parking will include 505 car parks within the private street network and at grade car park areas and two separate car parking buildings including a total of 600 parking spaces. These car park spaces will all be allocated to specific residential apartment units.

In addition the development will include a further:

- 51 public car park spaces as parallel roadside parking within the east west collector road which will be vested as local road.
- 22 visitor car parks, it is possible that 8 of these will be converted to fast charge parks for electric vehicles.
- 12 disability car park spaces, and
- 39 café/office car park spaces in the northern part of the site, to the north of the east west collector road.

The development will include a total of 1,229 car park spaces located throughout the site for different users.

The external parking, roadside and within at grade car park areas, will be design based on the QLDC District Plan provisions.²⁶ The car park buildings will be design in accordance with the NZ Standard.²⁷

3.4.4 Active Travel Network

The TPLM Structure Plan allows for Major Active Transport Routes which are provided within the Collector Type A (east west collector road) and the Building Restriction Area (BRA) adjacent to SH6. In consultation with QLDC, this has been developed to be consistent with and the neighbouring development to the east (429 Frankton-Ladies Mile Highway) and will include:

- A 4m shared path (active travel route) on the northern side of SH6 (in the BRA) and within the legal road reserve for Lower Shotover Road, and
- A 3m shared path (active travel route) on the southern side of the east west collector road, adjacent to the proposed residential activity.

Within the Site the Project will include:

- Construction of 1,080 cycle parks within communal areas so that there will be sufficient parking to allow for one cycle park per residential unit.
- Construction of footpaths (1.8m proposed) and shared paths (3m proposed) within the Site to provide for active travel modes (walking, cycling, micromobility etc) with connections to external paths/routes.

The proposed active travel network will allow residents to connect with onsite commercial areas. The proposed active travel networks will provide connections to nearby communities including Shotover Country, Lake Hayes Estate and Frankton for leisure, employment, education or community activities.

²⁶ Refer QLDC Proposed District Plan, Chapter 29 Transport, 29.11, Car Parking Sizes and Layout, Table 29.7.

²⁷ Refer NZ Standard AS/NZS2890.1:2004 Parking facilities, Part 1: Off-street car parking.

4 Compliance with District Plan

The Site is within the TPLM Zone and the Local Shopping Centre Zone. The QLDC PDP manages transport elements through the Transport Chapter (Chapter 29) and the TPLM Zone (Chapter 49).

4.1 Transport (Chapter 29)

The Project has been assessed against the relevant transport provisions of the PDP.

The Project has more than 10 residential units and, being in the TPLM Zone, is considered a high traffic generating activity (refer rule 29.411 High Traffic Generating Activities). This means that the Project will be restricted discretionary and will need to complete an integrated transport assessment which importantly needs to cover measures to reduce traffic generation, and to facilitate modal shift (to walking, cycling and PT).

As set out above, SLL will construct part of the east west collector road, upgrade Lower Shotover Road, and construct an internal road network and provide for resident and visitor parking. All parking, both for vehicles and cycles, will meet minimum design dimensions, manoeuvring standards, and lighting requirements in the PDP.

Roading and access will be designed in accordance with Council's Code of Practice, including the formation of the east west collector road (to be vested as a public asset) and internal private roads for access within the Site. Vehicle crossings on the collector road and internal network will be designed to accommodate anticipated traffic volumes and achieve appropriate safety requirements. There will be no direct vehicle access from SH6.

The Proposal includes cycle parking provided at a rate of one space per residential unit including short-stay visitor cycle parking distributed across the Site. The Project will include bus stops on SH6 with pedestrian and cycle crossings over SH6 (at the signalised SH6/Stalker Road Intersection) and over Lower Shotover Road. Footpaths and shared paths provide active travel routes within the Site with connections to nearby retail, employment, education and leisure activities beyond the Site. The Project will include appropriate transport measures to reduce the need for vehicle trips and includes appropriate initiatives to enable and encourage PT and active travel modes.

Overall, the transport layout has been designed to align with the intended transport network for the TPLM Zone and to ensure safe, efficient access for all travel modes. The Project will generally comply with the activity rules for traffic generation, parking, access, and road design within an urban (TPLM) zone. Any potential transport effects will be able to be appropriately managed through conditions of the Fast-track consent.

4.2 TPLM Zone (Chapter 49)

The Site is identified as medium density residential precinct within Sub-areas A & B of the TPLM Structure Plan.

The rule framework requires that specific transport upgrades are to be completed before residents can occupy any new homes. If transport upgrades are not delivered in accordance with the PDP rules/standards, resource consent is required as a non-complying activity.

Many of these transport upgrade works are dependent on NZTA and QLDC funding cycles, land acquisition, procurement processes and construction timeframes. These dependencies introduce a level of uncertainty which is largely outside the control of any individual developer. The trigger based approach within the Zone provisions do not readily respond to the immediate housing pressures facing Queenstown.

In order to expedite the delivery of housing at the Site, the Project includes the construction of a large proportion of the required transport upgrades (as outlined below) which can be reasonably delivered at this early stage of development within the Zone. This means that NZTA, QLDC and/or other developers will be responsible for completing the remaining works.

The Project will therefore give effect to the TPLM Zone and will make a fair and reasonable contribution towards the construction of required transport infrastructure to enable development to occur within the TPLM Zone. This will support improved transport efficiency and modal choice, with improved PT and active travel. The Project will include the following transport infrastructure upgrades which are required under the TPLM Zone:

- Development within the site of greater than 40 dwellings per hectare which assist with the viability of future PT services serving TPLM (refer rule 49.5.22 shared with medium and high density residential precincts at Sub-areas C, D, E, F, G & K2)
- Formation of the east west collector (Collector Type A) through the site with a new access intersection from Lower Shotover Road (refer rule 49.5.21 parts a & b). The Zone rule allows for the Collector Type A to intersect with SH6 or Lower Shotover Road,
- Upgrades to Lower Shotover Road including the Spence Road intersection (refer rule 49.5.39 shared with Sub-area K)²⁸ with a Project access from Lower Shotover Road via the new east west collector,
- New Signalisation of the SH6/Stalker Road intersection including Bus stops on SH6 with active travel (pedestrian and cycle) links and signalised at grade crossings (refer rule 49.5.39 shared with Sub-area K)²⁹, and
- New dedicated SH6 westbound bus lane between Stalker Road and the Shotover River bridge, (refer rule 49.5.39 shared with Sub-area C, D, E, F, G1, J & K).³⁰

The Project does not contribute to all required further transport infrastructure improvements set out in the TPLM Zone. In particular, there are a number of transport improvements which accommodate future development across multiple Sub-areas throughout the TPLM Zone (Sub-areas A, B, C, D, E, F, G1, J & K)³¹ including the following bus lanes:

- SH6 westbound between Howards Drive and the Shotover River bridge. This bus lane was planned by NZTA as part of the Queenstown Upgrade Package, NZTA no longer have funding this bus lane. The Project will include constructing a bus lane on the portion of SH6 between SH6/Stalker Road intersection and Shotover River bridge.
- SH6 Frankton which includes a westbound bus lane between Hardware Lane to SH6A (Frankton Road) and SH6 eastbound bus lane from SH6A to Hawthorne Drive. It is understood through consultation with NZTA that these bus lanes will be part of a future Queenstown Upgrade Works.
- Stalker Road, a northbound bus lane to SH6. The Project will include construction of a short portion of this bus lane to provide priority at the new signalised intersection of SH6 with Stalker Road.

These transport elements are intended to maintain and enhance (where possible) bus journey times and reliability. The implementation of these elements aims towards greater PT usage by future residents of TPLM and the existing residential communities of Shotover Country and Lake Hayes Estate. Information regarding transport options including the infrastructure available within the Site and within the surrounding transport network can be communicated

²⁸ Also refer Chapter 15 Local Shopping Centre Zone, rule 15.4.18 for Sub-area A2.

²⁹ Also refer Chapter 15 Local Shopping Centre Zone, rule 15.4.18 for Sub-area A2.

³⁰ Also refer Chapter 15 Local Shopping Centre Zone, rule 15.4.18 for Sub-area A2.

³¹ Also refer Chapter 15 Local Shopping Centre Zone, rule 15.4.18 for Sub-area A2.

to future residents and employees within the Site, via a travel demand management plan (refer assessment matter 49.8.2)

Because the Project does not provide all of the required transport infrastructure upgrades set out in the TPLM Zone, it will have a non-complying activity status under rule 49.5.39 (Staging development to integrate with transport infrastructure) of the PDP. The following Section provides an assessment of transport effects as a result of not providing all of the transport infrastructure triggers ahead of occupation of the proposed residential units at the Site.

5 Transport Effects

5.1 Off Site Transport Effects

The greatest transport effect of a development of this type and scale is likely to be associated with additional traffic in the surrounding transport network. When the TPLM Zone was first considered and then advanced through the District Plan's planning framework, the Transport Strategy intentionally did not attempt to resolve the existing regional transport issues affecting the SH6 corridor between Frankton and Lake Hayes. Instead, the Zone was designed to provide genuine travel choice, with activity rules intended to prioritise the delivery of active transport connections with viable and efficient PT (bus) services. The Strategy purposely did not seek to remove or reduce known traffic congestion from the adjacent local roads and state highway network. It was identified through the hearings into the TPLM Zone that a degree of congestion within the SH6 corridor would contribute to and encourage adoption of non-car travel modes.

The Zone expects that any development within the high and medium sub-zones of the TPLM Zone will actively encourage modal shift, getting people out of cars for daily trips. The TPLM Structure Plan and associated permitted activity rules deliberately support a self-contained neighbourhood, with local services, open spaces, and community facilities that reduce the need for residents of TPLM to travel across the Shotover River bridge. The TPLM planning framework aims to create a community with high quality walking, cycling, and PT options to reduce dependency and minimise use of private vehicles.

5.1.1 State Highway

The Project will provide transport infrastructure within SH6 to manage queuing and congestion on SH6 (and the local road network) with a new signalised intersection at Stalker Road. The design of the signalised intersection is being developed by BBO³² (refer Appendix C) on behalf of SLL in consultation with NZTA. This intersection design has been informed by traffic modelling which has been shared with NZTA. At this stage the traffic flow on SH6 (and on the local roads) has been optimised to match the available capacity at the Shotover River Bridge. The intersection timing has been developed such that traffic on regional traffic SH6 is prioritised over local road traffic.

The SH6 signalised intersection at Lower Shotover/Stalker will provide the ability to efficiently manage congestion within the local roads and/or SH6. In effect, this distributes delay and queuing (congestion) on SH6 and the side roads (Stalker Road and Lower Shotover Road) and creates a more efficient intersection layout. The traffic signals will also provide a safer crossing location for pedestrians and cyclists wishing to cross SH6.

The Project will promote effective traffic management within the adjacent road network with a focus on improving overall transport through the promotion of public and active transport networks in line with the direction set by the Zone provisions.

5.1.2 Local Road Network

There is currently congestion on Stalker Road in the AM peak period and Lower Shotover Road in the PM peak period. The proposed development will provide signalised intersections which provide the ability to manage congestion whilst maintain pedestrian and cyclist safety within the local road environment.

The Project will upgrade a portion of Lower Shotover Road to an urban collector road based on the QLDC Land Development and Subdivision Code of Practice. This will include a new

³² Refer BBO drawing, Simplicity Living Te Pūtahi Ladies Mile, SH6/Stalker Road and Lower Shotover Road Urbanisation, Concept Design Plan, 149360-00-0205, attached as Appendix C.

priority intersection with Spence Road and a new signalised intersection with the east west collector which will provide access to the Site.

Although the intersection with SH6 will be developed in consultation with NZTA, there will also be approvals required for works on the local roads (managed by QLDC) including Stalker Road, Lower Shotover Road and Spence Road where the final design is to be developed and approved by QLDC. These works will also include a speed limit reduction to 40km/h to be consistent with other urban environments and the QLDC proposed speed limits.³³

5.1.3 Public Transport Network Improvements

The Project will include the signalised intersection at the SH6 Stalker Road intersection which will include modifications to the Stalker Road approach and the westbound (eastern) approach to allow for bus priority (short length of bus lanes). The Project includes bus stops at the SH6 intersection with Stalker Road and a westbound bus lane between the intersection with Stalker Road and the Shotover River bridge. This bus infrastructure (bus lane and bus stops) within SH6 will provide travel choice and improve access to PT by both future residents at the Site as well as the wider TPLM Zone.

Based on the Queenstown Public Transport Business Case it is expected that the existing bus services, both Routes 2 & 5, will be upgraded over the period 2027 to 2030 to include improved frequency allowing for 15 minute bus intervals throughout the day including during the AM and PM peak periods. The improved bus frequency, bus stops and bus lanes between Stalker Road and the Shotover River bridge improve bus access for future residents at the Site and for existing residents of Shotover Country and Lake Hayes Estate.

5.1.4 Pedestrian and Cycle Network

The Project will improve the pedestrian and cycle connection with signalised crossings over the SH6 and Lower Shotover Road. These improvements provide significant safety and connectivity improvements to the pedestrian and cycle environment for existing residential communities and the future community within the wider TPLM Zone.

The Project will also include pedestrian and cycle crossings within the signalised intersection of Lower Shotover Road and the east west collector improving connections to the existing Queenstown Trails Network at Spence Road and the Old Lower Shotover Bridge to Frankton. This will enhance the connecting for residents and visitors to walk or cycle between TPLM and Frankton.

Overall, the Project allows the future community to consider active travel modes to access nearby residential, retail, employment education and leisure activities within Shotover Country or Frankton.

5.1.5 Traffic and Transport Modelling

A traffic and transport model has been refined by BBO to assess potential traffic effects of the Project on the surrounding road network, refer Appendix B.³⁴ Earlier iterations of the model were developed by WSP for NZTA to test transport scenarios for the preparation of a Ladies Mile Housing Infrastructure Fund (HIF) Application in 2018 and other subsequent works at Te Pūtahi Ladies Mile including the consented development at 429 Frankton-Ladies Mile Highway. BBO have updated this traffic model to include the current (2025) traffic volumes as background traffic flows. The modelled scenarios include:

³³ Refer QLDC proposed speed limit changes 2026.

³⁴ Refer BBO, Simplicity Living; Te Pūtahi Ladies Mile Queenstown, Transport Modelling Technical Memorandum (22 May 2026) attached as Appendix B.

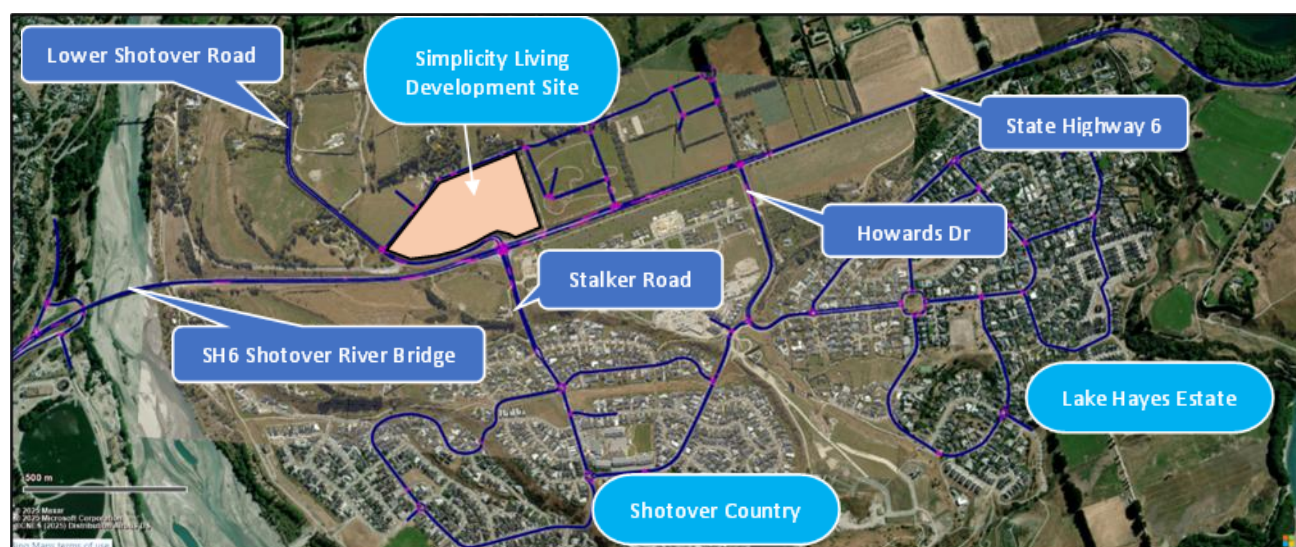
- A consented baseline scenario which includes the NZTA signalised intersection at Howards Drive and the consented development at 429 Frankton-Ladies Mile Highway with a signalised access intersection. This scenario retains the existing roundabout intersection at Stalker Road.
- A proposed development scenario which includes traffic generation from the proposed development with a new signalised intersection at Stalker Road, signalised intersection of Lower Shotover Road and the east west collector and a westbound bus lane between Stalker Road and the Shotover River bridge with bus priority approaches on Stalker Road and SH6.
- A sensitivity test with an amended bus route on Howards Drive.

The models include the increased bus frequency with both Route 2 (Arrowtown) and Route 5 (Lake Hayes Estate) having bus services every 15 minutes which is anticipated under the Queenstown Public Transport Business Case between 2027 and 2030.

Model Network

The model's road network representation includes SH6 between the Shotover River bridge and Lake Hayes and is shown in Figure 2 below.

Figure 2 – Extent of SH6 Frankton-Ladies Mile Transport Model, from BBO³⁵



AM Peak Period (Baseline Traffic and Network)

The transport model has been updated to reflect the anticipated road network with 2025 weekday traffic flows.³⁶ The network has been updated to represent a baseline to include consented development and committed transport infrastructure improvements. This includes traffic signal intersections at Howards Drive and 429 Frankton-Ladies Mile Highway with 377 consented residential dwellings at 429 Frankton-ladies Mile Highway (consented). In this model the PT mode shift has been modelled at 10% for the consented development and 5% for the existing Lake Hayes Estate and Shotover Country. This modal shift was the same as

³⁵ Refer BBO Simplicity Living; Te Pūhahi Ladies Mile Queenstown, Transport Modelling Technical Memorandum (22 May 2026) attached as Appendix B.

³⁶ Based on 2024 and 2025 weekday traffic flows received from NZTA (SH6) and QLDC (Lower Shotover Road, Stalker Road and Howards Drive).

modelled in the WSP model (undertaken for the TPLM Variation). In this baseline model the SH6 intersection with Stalker Road remains the existing roundabout intersection.

The baseline model for the AM peak period is to test delays within the road network as a result of the proposed and committed signalised intersections. The baseline model scenario results in the following journey times during the AM peak period.

- SH6 east to west, 10:44 minutes journey time at an average speed of 14km/hr suggesting that there is some delay of approximately 7 minutes which is less delay than the current (existing) network which has approximately 15 minutes delay.
- Lake Hayes Estate (Nerin Square) to SH6 west, 8:55 minutes journey time at an average speed of 19km/hr suggesting that there is some delay, approximately 5 minutes, which is similar to the current (existing) delay.
- Shotover Country (Stalker Road) to SH6 west, 11:09 minutes journey time at an average speed of 9km/hr which is a similar to the current (existing) delay.
- Lower Shotover Road to SH6 west, this approach has existing traffic only as this approach is not affected by any baseline development or upgrades. This approach has a journey time of 3:06 minutes journey time with no noticeable delay.

This suggests that the inclusion of the committed/consented development at TPLM including signalised intersections results in improved journey times on SH6 with less delay. However, the side roads (Lower Shotover and Lake Hayes Estate) will have journey times and level of delay similar to existing. This suggests that overall, the consented and committed traffic signals result in some improved journey times in the AM peak period for SH6 westbound traffic.

Within this model buses will be within the general traffic. A review of bus journey times suggest that eastbound buses (to Lake Hayes Estate and Arrowtown) will not have any noticeable delay. The westbound buses (to Frankton/Queenstown) will have a similar amount of delay as they do in the current (existing) road network where the Lake Hayes Estate bus (Route 5) will be delayed by approximately 9 minutes. The Arrowtown bus (Route 2) will be delayed by approximately 7 minutes, this bus is currently delayed by up to 15 minutes in the existing road network.

In the PM peak period, the baseline model scenario shows increased delays on Lower Shotover Road only, the results in the following journey times during the Lower Shotover Road to SH6 west approach will have a journey time of 9:30 (13km/hr) which a delay of approximately 6 minutes and an increase of approximately 4 minutes over the current (existing) road network. The other approaches/movement have a similar journey time to the current (existing) road network with minimal noticeable delay.

Traffic Generation (Development Traffic)

The original traffic model was based on the development of lower density suburban residential within TPLM with traffic generation rates based on the current development at Lake Hayes Estate and Shotover Country. This was from a 2018 survey which includes average residential traffic generation rates of; 0.74 vehicles per hour (vph) per unit in the AM peak period and 0.77vph/unit in the PM peak period. These traffic generation rates are similar or slightly higher than average traffic generation rates for lower density residential areas in the Wakatipu including Jacks Point and Hanleys Farm where there are limited commercial (retail/office facilities) with half hourly bus services. The typical make up of these residential areas is inclusive of low density lot sizes with family homes of three or more bedrooms often containing a residential flat.

The Project will be higher density living with typically one and two bedroom apartments (93%) and only some three bedroom apartments (7%). It is likely that these smaller apartment units will have a significantly reduced traffic generation.

Anecdotal evidence from town centre high density apartments suggests a traffic generation rate of 0.4vph/unit reducing further to 0.34vph/unit when considering work from home and hybrid working arrangements. Town centre living has all the necessary facilities; PT, retail and café/restaurants nearby. This is not the case in TPLM where these facilities will come, but not ahead of the Project.

New South Wales (Australia)³⁷ has recently (2024) updated their traffic generation data for high density apartment living with low public transport accessibility. This is based on 2017 data, with their worst case, regional developments, being away from town centres with minimal public transport accessibility, the average PT use only 0.2% (surveyed 0%-2%). The averaged traffic generation rates over a number of sites being; 0.39vph/unit in the AM peak period and 0.47vph/unit in the PM peak period. Based on this data, it is feasible that the Project with smaller 1 and 2 bedroom apartments at TPLM, with some onsite facilities (shared communal areas with café and convenience retail), that a realistic traffic generation rate for the Project will be: 0.40vph/unit in the AM peak period and 0.48vph/unit in the PM peak period. These traffic generation rates have been used for the Project in the development scenario model. These traffic generation rates are considered to be robust and conservative being based on pre-Covid surveys where there is generally a low proportion of work from home and hybrid living.

Mode Shift

A number of PT improvements have occurred under the Queenstown Public Transport Business Case between 2024 to 2027. These were predicted and modelled in the WSP model for the consented development at 429 Frankton-Ladies Mile Highway and were included in the baseline model scenario.

There are further anticipated service improvements programmed within the Queenstown Public Transport Business Case (refer Section 2.4.2 above). These improvements will coincide with the Project being occupied (approximately 2029-2031). The Queenstown Public Transport Business Case has a target mode share of 25% by 2039 increasing to 34% in 2053, the TPLM Transport Strategy set a target of 43% for the full development of TPLM. This suggests there is scope to amend the transport model with a higher modal shift in line with expectation which will reduce the overall impact of congestion on the local road network and in particular the residential areas of Shotover Country and Lake Hayes Estate.

As a conservative approach the modelled modal shift (to bus and active travel modes) has been modelled at 20% for new residential units within TPLM at The Project and at 429 Frankton-Ladies Mile Highway with a lower 15% modal shift at the existing Lake Hayes Estate and Shotover Country.

The transport model does not alter (reduce) traffic flows for a possible future high school at TPLM. The transport model maintains traffic within the model to allow for the school traffic in the AM peak period to the existing high school in Frankton.

These modal shift rates have been applied to the Project in the with development scenario model.

AM Peak Period (Development Traffic)

The 'with development' traffic model has been updated to include the SH6 signalised intersection at Stalker Road (and Lower Shotover Road). This model also includes a signalised intersection on Lower Shotover Road at the east west collector. This model

³⁷ Guide to Transport Impact Assessment, Transport New South Wales (2024).

therefore tests the additional traffic generated by the Project with the proposed intersection improvements.

The 'with development' model scenario results in the following journey times during the AM Peak Period:

- SH6 east to west, 15:58 minutes journey time at an average speed of 9km/hr. The journey time and delay are increased as a result of development traffic (approximately 5 minutes) over the baseline model. The delay is slightly less than the current (existing) delay of approximately 15 minutes delay.
- Lake Hayes Estate (Howards Drive) to SH6 west, 21:05 minutes journey time at an average speed of 8km/hr. This is a 12 minute delay increase over the baseline model and over the current(existing) delay.
- Shotover Country (Stalker Road) to SH6 west, 15.10 minutes journey time at an average speed of 7km/hr. This is an increase of 5 minute delay over the baseline model and over the current (existing) delay.
- Lower Shotover Road to SH6 west, 3:51 minutes journey time at an average speed of 30km/hr. This is a small increase in delay of only 45 seconds which is minimal when considering the changes to this approach and given the speed is unlikely to be noticed.

The AM peak period shows minimal changes to the SH6 and Lower Shotover Road traffic. However there will be increased delay to the existing Stalker Road and Howards Drive approaches affecting the existing residents of Lake Hayes Estate and Shotover Country.

The installation of signalised intersections on SH6 provides the ability to manage delay and traffic demands. In the current model this has been set to favour the larger traffic flow being the regional SH6 traffic over the lower traffic flows on the local or sider road traffic. Using signalised intersections allows the road controlling authority (NZTA/QLDC) to amend signal timing to optimise for different approaches or demands at different times. Essentially the Project provides a method of adjusting traffic demands so that the SH6 traffic has a greater delay to allow for reduced delays on the side roads (Howards Drive and Stalker Road).

The transport modelling also shows that there will be a number of vehicles which will not enter the model during the AM peak period. This suggests that the road network will be operating at capacity during the full peak period. It is likely that there will be peak spreading resulting in congestion over a longer period as commuters and residents adjust their travel time to minimise their traffic time. It is possible that some commuters and residents may change their mode of travel to avoid congestion, such as choosing to walk or cycle for local trips or take the bus for longer trips within the District.

PM Peak Period (Development Traffic)

In the PM peak period the current SH6 environment has a modest amount of observed delay and queuing except on the Lower Shotover Road approach the existing SH6 roundabout intersection. The introduction of development traffic (consented and the Project) will result in a significant increased traffic demand particularly turning left from SH6 (eastbound) to Lower Shotover Road (northbound) but also in the reverse direction, turning right from Lower Shotover Road to SH6 westbound. The introduction of traffic signals during the PM peak period can better optimise priority to suit traffic demands and in particular favour the peak traffic flows which are eastbound away from Frankton and Queenstown.

In the PM peak period there is minimal queuing and delay. The greatest delay will be to the minor traffic flows including:

- SH6 east to west, 8:24 minutes journey time at an average speed of 20km/hr. This traffic is delayed to allow for right turning traffic to Stalker Road and Howards Drive. The delay to this traffic is approximately 4 minutes.
- Lake Hayes Estate (Howards Drive) to SH6 west, 9:34 minutes journey time at an average speed of 18km/hr. This delay is mostly a result of a minor traffic flow being delayed to favour major traffic flows on the SH6 and right turning to Stalker Road. The delay to this traffic is approximately 4 minutes.

Overall, the PM peak period traffic delay is balanced with minimal overall delay identified in the transport model.

During the PM peak period traffic flows are restricted eastbound due to the single eastbound traffic lane on the Shotover River bridge. This means that there will be congestion to the west of the Shotover River which has not been included in the modelling undertaken. It is likely that eastbound traffic will have been delayed due to the intersections and merge to the west of the Shotover River.

5.1.6 PT Network Modelling

Bus will be travelling in traffic on Stalker Road and on SH6 between Stalker Road and Howards Drive which will affect their journey times. The transport model has been used to identify the changes to bus journey times, which are provided below.

AM Peak Period, PT Journey Times

The following provides bus journey times for buses using their current (existing) routes with proposed signalised intersections at SH6 intersection. During the AM peak period the model includes bus services operating at a frequency a bus every 15 minutes. The following provide Journey times and delays for each bus route.

- Route 2, Hardware Lane to east (towards Arrowtown), 3:52 minutes journey time and average speed 44km/hr.
- Route 2, east to Hardware Lane (from Arrowtown), 14:13 minutes journey time and average speed 12km/hr. This bus is delay at Howards Drive and at Stalker Road intersections. The delay to this bus service is less than the current (existing) delay of approximately 15 minutes.
- Route 5, Hardware Lane to Nerin Square (Lake Hayes Estate), 15:38 minutes journey time and average speed 25km/hr. There will be some delay to this bus as it travels through signalised intersections and Shotover Country during the peak period which results in a slower average speed.
- Route 5 Nerin Square to Hardware Lane (from Lake Hayes Estate), 29:22 minutes journey time and average speed 13km/hr. This bus is delayed both on Howards Drive when leaving Lake Hayes Estate and again on Stalker Road when leaving Shotover Country therefore compounding the delay for this route. The overall delay is approximately 15 minutes which is higher than the current (existing) 8 minutes delay on Stalker Road when leaving Shotover Country.

The transport modelling shows that eastbound (towards Frankton) bus services will be delayed during the AM peak period. The delay on SH6, Route 2 (Arrowtown), is a slight reduction from the current delay in the existing road network. Route 5 (Lake Hayes Estate) will be delayed when exiting Lake Hayes Estate (Howards Drive) and passing through Shotover Country (Jones Road and Stalker Road), the delay to this single bus route, 4 individual Queenstown bound buses, is up to 15 minutes and will be noticeable.

PM Peak Period, PT Journey Times

The following provides bus journey times for buses using their current (existing) routes with proposed signalised intersections at SH6 intersection. During the AM peak period the model includes bus services operating at a frequency a bus every 15 minutes. The following provide Journey times and delays for each bus route.

- Route 2, Hardware Lane to east (towards Arrowtown), 4:43 minutes journey time and average speed 36km/hr.
- Route 2, east to Hardware Lane (from Arrowtown), 10:24 minutes journey time and average speed 16km/hr. This bus is delay at Howards Drive and at Stalker Road intersections to allow for the right turning traffic to Lake Hayes Estate and Shotover Country. This delay will be approximately 6 minutes.
- Route 5, Hardware Lane to Nerin Square (Lake Hayes Estate), 14:04 minutes journey time and average speed 28km/hr. There will be some delay to this bus as it travels through signalised intersections and Shotover Country during the peak period which results in a slower average speed.
- Route 5 Nerin Square to Hardware Lane (from Lake Hayes Estate), 13:47 minutes journey time and average speed 29km/hr. There will be some delay to this bus as it travels through signalised intersections and Shotover Country during the peak period which results in a slower average speed.

In the PM peak period there is minimal overall bus delay, the greatest delay being on the SH6 westbound as buses are delayed at the signalised intersections waiting for the dominant right turning traffic flows from SH6 to Stalker Road (Shotover Country) and Howards Drive (Lake Hayes Estate).

5.1.7 Transport Sensitivity Testing

A single sensitivity test has been undertaken in light of bus delays between Nerin Square (Lake Hayes Estate) and Hardware Lane during the AM peak period. This test has considered a scenario where Route 5 (Lakes Hayes Estate) service is diverted via SH6 and Howards Drive to avoid queuing northbound on Stalker Road. It is possible that a future northbound bus lane on Stalker Road (as required under PDP rule 49.4.39)³⁸ will reduce some of this delay although initial investigations suggest that additional land is required which is owned by others.

It is anticipated that the bus route will still serve Shotover Country but the route would be amended to exit (and possible enter) via Jones Road and Howards Drive. This would allow a bus lane to be constructed within the existing road reserve.

This model includes additional bus lanes on northbound on Howards Drive (Sylvin Street to SH6) and on SH6 westbound (Howards Drive to Stalker Road).

The sensitivity test shows the following bus journey time improvements during the AM peak period:

- Route 2, east to Hardware Lane (from Arrowtown), 10:25 minutes journey time and average speed 16km/hr. This bus will have 4 minutes reduced delay as a result of a bus lane on SH6, Howards Drive to Stalker Road.
- Route 5 Nerin Square to Hardware Lane (from Lake Hayes Estate), 12:59 minutes journey time and average speed 29km/hr. This bus will have 17 minutes reduced delay which is the benefit of a bus lane on Howards Drive and SH6 (Howards Drive to Stalker Road).

³⁸ refer QLDC Proposed District Plan, Chapter 49 Te Pūtahi ladies Mile Zone, rule 49.5.39 Staging development to integrate with transport infrastructure.

The eastbound bus routes; Route 2, Hardware Lane to east (towards Arrowtown) and Route 5, Hardware Lane to Nerin Square (Lake Hayes Estate) do not have any noticeable change in their journey times. It is noted that other vehicles also do not have any noticeable change in their journey times.

This sensitivity test suggests that it is possible to improve bus journey times within the network which could be undertaken by providing further bus lanes as other areas of TPLM develop, by either:

- Providing a northbound bus lane on Stalker Road which may assist Route 5 (Lake Hayes Estate) saving approximately 8 minutes delay, this is possible should land adjacent to Stalker Road become available, or
- Providing a northbound bus lane on Howards Drive and additional bus lane on SH6 (Howards Drive to Stalker Road) which could save up to 17 minutes delay.

This suggests that further bus journey time improvements are possible as further properties develop with the TPLM Zone.

5.1.8 External Transport Network Design

The Project includes significant upgrades to the surrounding road network. These are shown on the development drawings. The design of these elements will be developed to a detailed design stage including relevant review design approval and engineering plan approvals by the appropriate road controlling authorities.

To manage this process the following recommendations are made for possible inclusion in consent conditions:

- That the SH6 signalised intersection at Stalker Road (and Lower Shotover Road) is to be constructed and operational prior to buildings being occupied by the public.
- That the bus lane on SH6 (Stalker Road to Shotover River bridge) is to be constructed and operational prior to buildings being occupied by the public.
- That the design of any new bus stop is to be provided to Otago Regional Council for review. This shall include any additional bus infrastructure (bus shelters, bike stands etc) which are to be included with the bus stop.

Separately from the consent process, the design of these above upgrades will need to be agreed with NZ Transport Agency as the road controlling authority. The design is expected to reflect any speed limit changes (ie. 60km/hr speed limit on SH6) to facilitate the installation of the proposed signalised intersection.

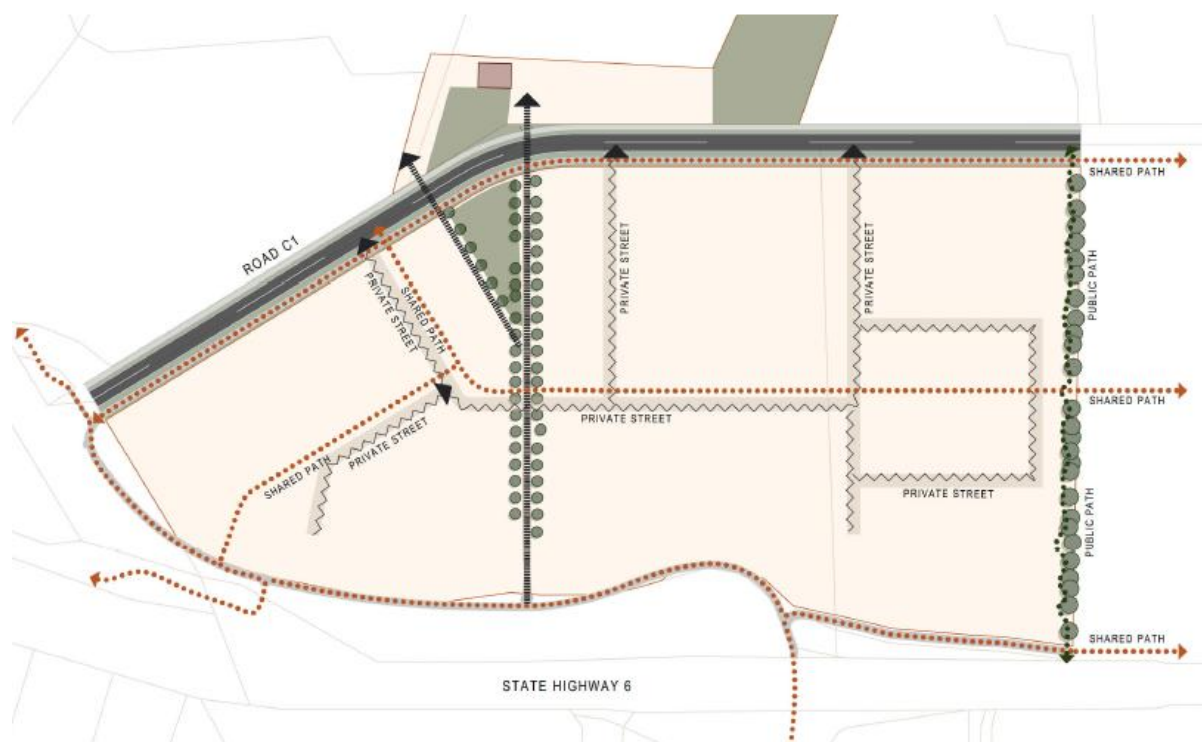
- That the design of the upgrades to Lower Shotover Road are to be provided to Queenstown Lakes District Council for their certification and engineering plan approval. The design is to include for Lower Shotover Road to be upgraded to an urban collector road generally in line with the QLDC Land Development and Subdivision Code of Practice. The design will include new intersections including; a priority intersection with Spence Road and a signalised intersection with the east west collector.

The design is to reflect any changes to the speed limit required, ie. 40km/hr based on the QLDC 2026 speed limit changes.

5.2 Onsite Transport Effects

The Project will include the construction of part of the east west collector road (Collector Type A) and the on-site transport network. The following Figure 3 provides the transport network to be developed within the Site, together with the boundary conditions needs to allow neighbouring developers/landowners to connect and continue the provision of these facilities and functions across the TPLM Zone.

Figure 3 – Onsite transport network, image from Brewer Davidson Masterplan



The above proposed transport network includes the public road network (east west collector), onsite private road network and shared path network including links to the shared path network and extension of the east west collector beyond the site.

5.2.1 East West Collector

The east west collector forms part of the Collector Type A identified in the TPLM Structure Plan. This road will provide a link between Lower Shotover Road and the different residential, commercial, leisure and school activities within the TPLM Zone (lying generally to the east of the Site). This will be formed as a Figure E23³⁹ road type extending between the eastern and western site boundaries. The road will have an overall legal width of 22m - 10m of which is existing legal road reserve (unformed) to the north of the Site. The road will include roadside parking as indented parking bays to provide public, overflow and visitor parking for the adjacent activities. The footpath on the southern side (against residential units) has been widened to 3.0m to provide a shared path (active travel route) in consultation with QLDC and to provide an east west active travel route to meet the TPLM Structure Plan requirement.

This road, and intersection with Lower Shotover Road, will be designed to accommodate a future bus routes allowing space for on-road bus stops and associated bus stop infrastructure (shelter, bus boarders and bus build outs). These design elements will be developed with ORC and QLDC as the design progresses. It is noted that this road alignment and design aligns with the portion of the east west collector (Collector Type A) being provided at 429 Frankton-Ladies Mile Highway.

This road will be vested to QLDC and is being developed in consultation with QLDC to comply with their standards and guidelines.

³⁹ Refer QLDC Land Development and Subdivision Code of Practice, Table 3.3: Road design Standards.

5.2.2 Internal Local Roads and Parking Streets

The Project will include private local roads, these will be formed as Figure E22⁴⁰ road types with footpaths each side. These roads will remain in private ownership and will include pedestrian access to adjacent apartment buildings and resident parking. These roads will have roadside parking, either angled parking or parallel parking. Parking spaces will be allocated to individual apartments for resident parking. These local streets will operate as car park aisles with sufficient manoeuvring space to enter and exit adjacent car park spaces.

5.2.3 Active Travel Paths

Active travel paths are required as part of residential land use. To meet the minimum requirements of the TPLM Zone this development will include:

- An active travel route provided within the east west collector as a 3.0m minimum width shared path. This will replace the southern footpath and aligns with a similar path at 429 Frankton-Ladies Mile Highway,
- An active travel route east west central to the Project as a 2.5m shared path which will align with a similar central shared path at 429 Frankton-Ladies Mile Highway,
- Active travel routes north south through the Project at the western end (adjacent to 429 Frankton Ladies Mile Highway) and the central Promenade which is aligned with the existing treelined driveway. These will be provided as 2.5m minimum width shared paths, and
- An active travel route is provided adjacent to SH6 and Lower Shotover Road as a 4m minimum width shared path. This will include a crossing over Lower Shotover Road to Spence Road to meet with the Queenstown trails network.

Within the Site it is anticipated that cyclists will also share the road space and that pedestrians will have separate footpaths. The active travel routes are all provided as shared paths. This is because in a shared path environment all users (pedestrians, cyclists, micromobility etc) moderate their speed and position to avoid conflict with other users, therefore any conflict at intersection points are of a low speed nature which avoids injury. The alternative is to consider separate cycle paths and footpaths. This approach has a number of shortfalls:

- The current government is considering a law change to allow young cyclists (under 12 or 14 years) may use any path including the footpath.
- The law distinguishes a cyclist based on wheel size only (greater than 355mm wheel size). This means that there is confusion with micromobility (scooters/skateboards) as to which path type they may or should use. It is noted that even faster e-scooters are permitted to lawfully use a footpath.
- With separate paths, users often do not consider the other user groups resulting in increased speeds. In a tight urban environment with multiple paths, desire lines and intersection points this can often lead to higher speed conflicts area resulting in more crashes, and greater crash severity.

To avoid confusion and high severity crashes all active travel routes are provided as shared paths where users moderate the speed/position to minimise conflict.

The active travel network has been developed to align with external paths at; 429 Frankton Ladies Mile Highway, crossing over SH6 to the existing communities (Lake Hayes Estate/Shotover Country) and to Spence Road, the existing Queenstown Trails Network. The

⁴⁰ Refer QLDC Land Development and Subdivision Code of Practice, Table 3.3: Road design Standards.

connected active travel network will allow future residents to easily access services beyond the Site within adjacent communities at Lake Hayes Estate, Shotover Country and Frankton.

5.2.4 Travel Demand Management Plans

The TPLM Zone rules requires that a travel demand management plan is provided for residential and workplaces⁴¹. It is recommended that a Travel Plan is provided and accessible to all future residents at the Site. As a minimum the Travel Plan should provide residents with information with respect to:

- Onsite and available communication networks so that residents may work from home.
- Onsite office areas and shared community spaces and activities to reduce the need to travel beyond the Site
- Onsite transport networks (cycle parking, active travel routes) to aid travel within the site.
- Location of local activities (leisure, commercial, convenience retail etc) and the most convenient active travel to these activities to promote active travel modes for local activities.
- Transport connections (footpaths, shared paths and bus stops) to surrounding communities, commercial, educational (high school) and leisure activities to promote active and PT options for travel beyond the Site and within the Local Area.

The travel plan will be an essential part of any travel demand management plan in that it provides information to residents to inform their travel choices. The travel demand management plan should also incorporate performance targets and monitoring against these targets as per the assessment requirements. It is recommended that the travel demand management plan, including a residential and workplace travel plan is provided to QLDC for review prior to any occupation of the site. I consider that the land use focusing on long term rental allows and supports the development and monitoring of a travel demand management plan.

5.2.5 High School

Currently there is no high school within the TPLM Zone⁴². The requirement for a high school is reflective of the Transport Strategy which specifically removed traffic in the AM peak (180 westbound vehicles) to simulate a possible high school to the east of the Shotover River. At this time there is no confirmed high school site and students are still required to cross the Shotover River to the existing high school in Frankton.

The transport model has considered the high school being located in Frankton and this is allowed for in the traffic generation rates used during the AM peak period. The high school traffic has not been removed from the overall traffic generation and therefore represents a degree of conservatism (estimate of traffic effects) compared to what will most likely occur within the TPLM once a school site has been identified and developed.

5.2.6 Onsite Transport Network Design

The Project includes the development of the east west collector road and active travel connections which may be vested with Council as public roads. To manage the design of this public infrastructure the following is recommended for consideration in consent conditions:

⁴¹ Refer rule Chapter 49 Te Pūtahi Ladies Mile Zone, 49.8 Assessment Matters for Site and Building Design, 49.8.2 part a.

⁴² Refer rule Chapter 49 Te Pūtahi Ladies Mile Zone rule 49.4.6 and 49.8 Assessment Matters for Site and Building Design, 49.8.3.

- That the design of the east west collector (Collector Type A) is to be provided to Queenstown Lakes District Council for their certification and engineering plan approval. The design is to be based on a Figure E23 road type from the QLDC Land Development and Subdivision Code of Practice. The design will include roadside car parking and a 3m shared path on the southern side of the road.
- That the design of vehicle crossings to the Site are to be provided to Queenstown Lakes District Council for their certification and engineering plan approval. The vehicle crossings are to be based on a B99 car as the design vehicle and an 8m medium rigid truck (service vehicle, refer NZTA RTS18)⁴³ as a check vehicle. The vehicle crossing is to be based on the design of a heavy duty commercial vehicle crossing and shall provide priority for the shared path/footpath through the vehicle crossing.
- That the design of the 4m shared path adjacent to SH6 and Lower Shotover Road is to be provided to Queenstown Lakes District Council for their certification and engineering plan approval. The design is to include connections to Spence Road, the SH6 intersection with Stalker Road and provision for a future connection to TPLM Sub-areas K1, K2 & K3.

The above infrastructure should be constructed and operational prior to occupation of the buildings by the public.

The onsite transport infrastructure is to remain in private ownership, to manage the design of this private transport infrastructure the following is recommended for consideration in consent conditions:

- That the design of the road infrastructure is to be provided to Queenstown Lakes District Council for certification. The design is to show road alignments and cross sections appropriate for a B99 car as the design vehicle and an 8m medium rigid truck (service vehicle, refer NZTA RTS18)⁴⁴ as a check vehicle. The roads are expected to have a 30km/hr operating speed and otherwise designed in accordance with the QLDC Land Development and Subdivision Code of Practice.
- That the design of onsite footpaths and shared paths is to be provided to Queenstown Lakes District Council (or an alternative design panel) for certification. The minimum widths are to be 1.5m for a footpath and 2.5m for a shared path.
- That the design of onsite car parking areas are to be provided to Queenstown Lakes District Council for certification. The parking areas are to be based on the requirements of the QLDC Proposed District Plan (refer 29.11 Car Parking Sizes and Layout, Table 29.7) and/or the NZ Standard AS/2890.1:2004 Parking facilities, Part 1: Off-street car parking. All parking spaces either roadside, within car parking areas or within parking buildings are to be appropriate for a residential users unless specified for visitors or mobility impaired users.

That the above infrastructure should be constructed and operational prior to occupation of the buildings by the public.

To allow for the ongoing encouragement of active and PT modes the following is recommended:

- That prior to the occupation of any buildings on the site by the public a Travel Demand Management Plan incorporating a Residential Travel Plan is to be developed and provided to Queenstown Lakes District Council (or an alternative design panel) for certification. The

⁴³ Refer Land Transport NZ (now NZTA) RTS18 New Zealand on-road tracking curves for heavy motor vehicles.

⁴⁴ Refer Land Transport NZ (now NZTA) RTS18 New Zealand on-road tracking curves for heavy motor vehicles.

Travel Demand Management Plan is to be kept up to date by the Site operator and resident representatives. The Travel Demand Management Plan is to be maintained in an area (physically or electronically) which is easily accessible to all residents and workers at the Site.

5.3 Summary of Transport Effects

The TPLM Zone expects that any development within the medium sub-zones of the TPLM Zone will actively provide genuine travel choice to encourage a modal shift, getting people out of cars for daily trips. It is accepted that the TPLM Zone provisions would not remove congestion from SH6 or the local road network.

The Project will expedite specific transport infrastructure upgrades to improve active travel to local communities and PT connections to activities throughout the District without the need for private vehicle trips.

An assessment of this infrastructure using transport modelling has been undertaken. This modelling is based on realistic trip generation rates for the Project with a modal shift which is in the range anticipated by the Queenstown Public Transport Business Case and the TPLM Transport Strategy. The transport modelling considers a future road network including signalised intersections on SH6 at Stalker Road (proposed within the Project), at 429 Frankton-Ladies Mile Highway (consented) and at Howards Drive (NZTA committed).

The transport modelling shows that during the PM peak period there will be minimal delay on SH6 and the local road network, there will be no noticeable traffic effects to the east of the Shotover River. It is acknowledged that during this period traffic flow eastbound over the Shotover River bridge is restricted due to congestion to the west of the bridge in Frankton.

During the AM peak period there will be delay on SH6 and Lower Shotover Road, the level of queuing and delay will be similar to the existing road network. However, there will be noticeable delay increases on the side roads, Stalker Road and Howards Drive which will affect the existing residents of Lake Hayes Estate and Shotover Country. The transport model suggests that these local residential areas will have some delay increase and it is likely that the AM peak will spread. The current peak is generally between 8am and 9am, it is likely that residents will shift their travel to times when there will be less congestion on the road network. It is possible that there will be peak spreading during the AM peak traffic may as commuters and residents change their travel time to avoid congestion on the road network which will be a noticeable transport effect.

The signalised intersections within the Transport model have been configured to optimise overall delay which favours the largest traffic flow. In the AM peak period this favours the regional SH6 traffic being the largest traffic flow. Signalised intersections can be managed to favour any traffic flow, it is therefore possible to configure the signal timing to favour local traffic or bus routes. It is possible to change this priority throughout the peak period or day depending on the priorities of the Road Controlling Authorities. In the PM peak period the signal timing favours eastbound SH6 traffic and right turning traffic from the SH6 at the side road intersections (to Howards Drive and Stalker Road, this means that during the PM peak period there is some additional delay to westbound SH6 traffic

The transport modelling has been used to investigate bus delay, this shows that during the AM peak period there will be some delay on SH6, Route 2 (Arrowtown), although this will be less delay than in the existing road network. Route 5 (Lake Hayes Estate) will be delayed by up to 15 minutes, compared to a possible 8 minute delay in the existing network, this increase in delay will be noticeable. The delay is incurred when exiting Lake Hayes Estate and passing through Shotover Country to the Stalker Road intersection. In order to further investigate this delay a further sensitivity assessment has been undertaken. The sensitivity testing suggest

that it is possible to reduce delay by changing the bus route and adding additional bus lanes. Under the TPLM rules these are elements which will be delivered as additional areas within the TPLM Zone are developed.

There is minimal overall bus delay during the PM peak period and will not be noticeable.

The Project provides sufficient transport infrastructure to generally accommodate the additional vehicles within SH6 and the local road network. Generally, SH6 will operate at a similar level of service as the existing road network. There will be some noticeable delay on Stalker Road (Shotover Country) and Howards Drive (Lake Hayes Estate) during the AM peak period, particularly to the bus route from Lake Hayes Estate to Queenstown (Route 5). There are possible solutions to reduce bus delay which would, under the Zone framework, be addressed when future parts of the TPLM Zone are developed.

The suggested traffic conditions are provided to manage the design and construction of transport infrastructure which is to be provided as part of the Project. The transport infrastructure should be constructed and operational prior to occupation of the buildings by the public.

The initial development at the Site will include 100 apartments (residential units) to be constructed at the earliest opportunity to provide on-site accommodation for construction workers. To confirm, this portion of the Project will be delivered ahead of transport infrastructure and will reduce impact on the peak AM and PM peak periods within the surrounding and adjacent transport network.

6 Conclusion

The Project will include 1,085 apartments (residential units) within an integrated multi-unit residential development for long-term residential rental at the Site (12 Lower Shotover Road and others). The Site is within the medium density residential precinct and sub-areas A & B of the Te Pūhahi Ladies Mile (TPLM) Zone.

Based on the analysis of expected transportation effects described in this report, the Project will enable activities that can operate safely and efficiently from a transportation perspective. The Project delivers key aspects of the transport network on-site and within the surrounding transport environment. The Project accords with the Transport Strategy for the TPLM Zone and provides demand and support for PT initiatives and improvements within the Queenstown Public Transport Business Case.

To expedite the delivery of housing at the Site, the Applicant, is proposing to construct transport upgrades which can reasonably be delivered at this stage. This includes a signalised intersection at SH6/Stalker Road with bus stops and a bus lane on SH6. The Project will give effect to the TPLM Zone, making a fair and reasonable contribution towards the construction of the transport infrastructure identified to support the whole TPLM Zone. Other subsequent transport infrastructure upgrades will require input from NZTA, QLDC and/or other developers.

The Project is not a transport improvement project, and as such is not expected to remove or reduce peak period congestion from the adjacent SH6 or the local road network. Rather the Project is intended to deliver much-needed residential opportunities in a location that has previously been identified and incorporated into District Plan documents.

The transport infrastructure to be delivered in association with the Project will effectively and efficiently manage the transport movements to and from the Site using signalised intersections catering for both vehicular and active travel mode users and providing improved PT accessibility and reliability. The development will support improved overall transport efficiency with improved PT reliability and active travel connectivity provide modal choice in line with the QLDC District Plan with a focus on reducing dependency on the private vehicle for daily travel.

The Project provides sufficient transport infrastructure to generally accommodate the additional vehicles within SH6 and the local road network. SH6 will operate at a similar level of service as the existing road network. There will be some noticeable delay on Stalker Road (Shotover Country) and Howards Drive (Lake Hayes Estate) during the AM peak period, particularly to the bus route from Lake Hayes Estate to Queenstown (Route 5). There are possible solutions to reduce bus delay which would, under the Zone framework, be addressed when future parts of the TPLM Zone are developed.

Overall, transport effects associated with the Project are consistent with those anticipated through the planning and Transport Strategy phase of the TPLM Zone, leading to an effective transport outcome and contributing to the delivery of much-needed, well-located housing for the wider Queenstown District.

Appendix A Author's Experience and Qualifications

Jason Bartlett

CEng MICE, MEngNZ

Qualifications

1996	Bachelor of Engineering (Civil), University of Canterbury
1993	New Zealand Certificate in Engineering (Civil), New Zealand Qualifications Authority

Professional Memberships

2007 to present	Chartered Engineer and Member of the Institution of Civil Engineers (UK), CEng MICE
2003 to present	Member of the Institution of Civil Engineers (UK)
1995 to present	Member of Engineering New Zealand, MEngNZ

Employment Profile

2012 to present	Director and Transport Engineer, Bartlett Consulting (Queenstown) – Working with clients throughout the lower South Island as an independent traffic and transport consultant. I have been involved in a wide range of developments and local authority projects from resource consent through design development to construction providing transport evidence for resource consent applications, design advice and undertaking safe systems audits.
2008 to 2012	Senior Transportation Engineer, GHD limited (Queenstown) – Involved as a transport engineer and project manager on projects throughout New Zealand with a focus on local authority projects in the southern part of the South Island. Providing traffic and transport advice and undertaking road safety audits at all levels of project development.
2002 to 2007	Principle Traffic Consultant, AECOM (UK) – Providing traffic design and road safety advice for transport projects throughout the UK. Involved in road safety audit and the early stages of design development for major transport schemes.
1999 to 2002	Traffic Engineer, Bartlett Consulting Limited (UK), Design engineer and contract supervision for development projects and major local authority projects in and around London.
1995 to 1999	Roading Engineer, MWH Limited (now Stantec, Dunedin and Alexandra) – Roothing design engineer and network maintenance manager for local authorities throughout Otago.
1990 to 1994	Technician, Royds Garden (now Stantec, Dunedin) – working as a structural detailer and road designer on a variety of projects for private and local authority clients.

Appendix B Transport Modelling Technical Memorandum

The BBO, Simplicity Living; Te Pūtahi Ladies Mile Queenstown, Transport Modelling Technical Memorandum (22 May 2026) is attached.



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Memo

To Mitchell Holyoake (Simplicity Living Ltd)
CC Jason Bartlett (Bartlett Consulting), Don McKenzie (DM Consulting)
From Cameron Inder
Date 22 July 2026
Job No. 149360
Job name Simplicity Living; Te Putahi Ladies Mile Queenstown
Ref No. **Transport Modelling Technical Memorandum – Revision A**
Subject Mitchell Holyoake (Simplicity Living Ltd)

1. Introduction

This technical memorandum (memo) provides the methodology and results of transport modelling undertaken by BBO for Simplicity Living Ltd (SLL) to support a Fast Track substantive resource consent application for the proposed residential development in Queenstown adjacent to SH6 at Ladies Mile.

The memo is an input to and should be read in conjunction with the Simplicity Living Te Putahi Ladies Mile Integrated Transport Assessment report by Bartlett Consulting Ltd, dated July 2026.

1.1 Simplicity Living Development Overview

SLL proposes to construct 1085 residential apartment units on approximately 9 hectares of land located on the north side of SH6 and Lower Shotover Road at Te Putahi Ladies Mile (TPLM). Figure 1 on the following page shows the indicative development master plan for the site.

Vehicle access to the site will be entirely from a new Collector Road connecting to Lower Shotover Road, in general accordance with the TPLM Structure Plan. The Collector Road is proposed to connect to Lower Shotover Road via a new signalised 'Tee' intersection.

Lower Shotover Road presently connects to SH6 through a dual lane roundabout, with Stalker Road on the south side of the roundabout. The development proposal involves replacing the roundabout with a 4-arm signalised intersection to manage the additional traffic associated with the development, and to maximise the benefit of a new bus priority lane on SH6.

Non-car-based transport facilities proposed with the SLL development include:

- Cycling connectivity via the proposed off-road paths on the Collector Road and Lower Shotover Road, connecting via Spence Road to the existing Queenstown Twin Rivers cycle trail across the Old Shotover River / Kimitiākau Bridge.



- Public Transport (PT): A new westbound bus lane on SH6 between the Shotover River bridge and Stalker Road. The #2 Frankton Hub – Arrowtown bus and the #5 Queenstown - Lake Hayes bus routes operate on SH6. New bus stops will be provided on SH6 west, SH6 east, and Stalker Road departure lanes at the new signalised intersection.



Figure 1: Simplicity Living Indicative Master Plan and Road Network improvements, Te Putahi Ladies Mile

2. Modelling Methodology

2.1 Existing Te Putahi Ladies Mile Transport Model

BBO has undertaken the modelling using an existing micro-simulation transport model of TPLM, Shotover Country and Lake Hayes Estate developed by WSP consultants in 2018. WSP developed this model to assess the proposed “Flints Park” Stage 1 and 2 residential developments at 429 Frankton-Ladies Mile Highway (SH6). The model was constructed using PTV VISSIM software and calibrated 2018 traffic volumes.

SLL and BBO understand that Queenstown Lakes District Council (QLDC) and the New Zealand Transport Agency (NZTA) are familiar with the WSP model and are comfortable with its use in assessing the transport effects of the SLL development given it has been used to test various developments and transport infrastructure at TPLM since 2018.

The Simplicity development proposal represents a continuation of that process (particularly from a modelling point of view).

However, QLDC recommended¹ that the 2018 baseline year model be first updated to current-day volumes (2025) for the modelling of the proposed SLL development.

¹ Monique Barnes, QLDC Senior Civil Engineer, email dated 14/10/2025



The model network extent as received from WSP is illustrated in the screenshot from the PTV VISSIM software, in Figure 2.

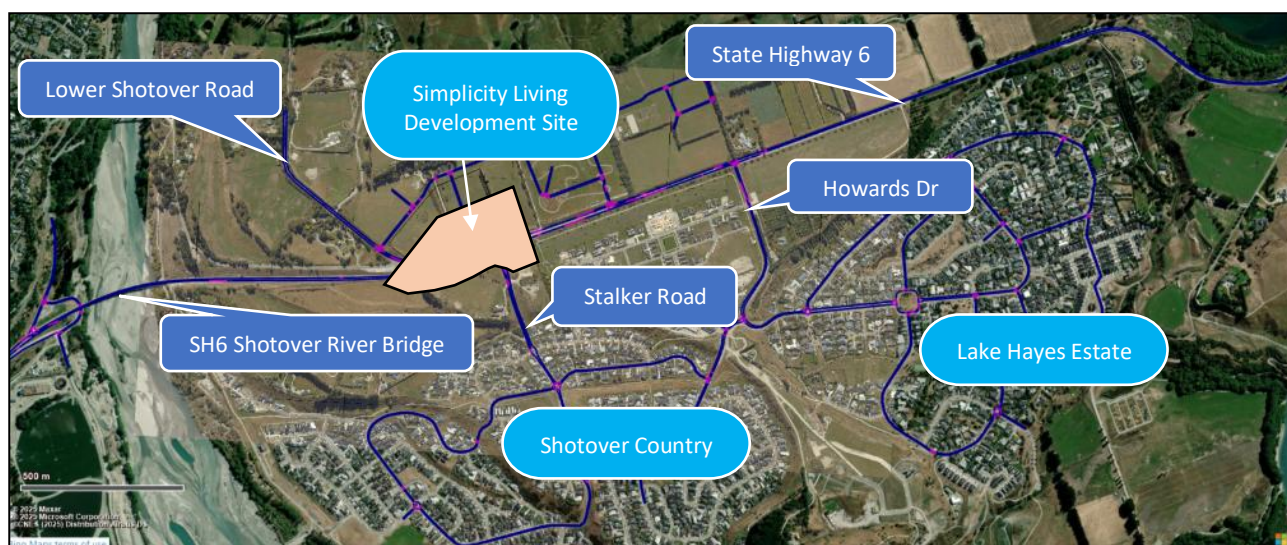


Figure 2: Te Putahi Ladies Mile Transport Model Network (blue and pink lines)

2.2 Existing Model Land-use Activity and Trip Generation

BBO also received, and has used, WSP’s trip generation and origin – destination (OD) matrix calculation spreadsheets that informed the travel-demand profiles coded in the existing model.

WSP’s spreadsheets contained the calibrated 2018 baseline trip matrices (light vehicles and heavy vehicles separated), and development trip matrices for Flints Park Stage 1 and 2. The Flints Park development at 429 Ladies Mile Highway was consented for 287 low density dwellings and is now owned by Clarke Group. Glenpanel Homestead recently obtained consent for a further 90 low-density residential dwellings on the site, which brings the total development yield at 429 Frankton-Ladies Mile Highway to 377 dwellings.

Therefore, BBO’s modelling for the SLL development has adopted the Clarke Group and Glenpanel developments as part of the baseline environment. In this modelling report, both consented areas at 429 Frankton-Ladies Mile Highway are referred to under the one name, Clarke Group development.

BBO also adopted WSP’s validated peak period trip generation rates, and trip assignment and distribution percentages used for Flints Park development in the SLL development modelling, given the two sites are neighbours and since Frankton, Queenstown CBD, Queenstown Airport and the Remarkables Ski Area, are nearby major trip generators and attractions, and are all located or accessed from the road network west of the TPLM area.

The following table shows the WSP validated trip assignment and distribution percentages applied to the SLL’s development modelling. WSP identifies in the OD matrix spreadsheet that the trip generation rates and trip distribution percentages are based on existing Lake Hayes Estate and Shotover Country.



Table 1: Existing Model Trip Generation Rates and Trip Distribution %

AM PEAK						
OUT			IN			
TRIP GEN. RATE	0.55			0.19		
	TO WEST	TO EAST	TO LSR	FROM WEST	FROM EAST	FROM LSR
TRIP DIST.	85%	11%	4%	69%	24%	7%

PM PEAK						
OUT			IN			
TRIP GEN. RATE	0.30			0.47		
	TO WEST	TO EAST	TO LSR	FROM WEST	FROM EAST	FROM LSR
TRIP DIST.	77%	17%	6%	79%	13%	9%

The 2018 baseline model includes five zones that represent the existing baseline traffic generation and attraction in the network. These are:

- Zone 1: Lower Shotover Road
- Zone 2: SH6 (west of Shotover River bridge)
- Zone 3: Stalker Road
- Zone 4: Howards Drive
- Zone 5: SH6 (east of Strains Road)

The 2018 Baseline AM and PM Peak OD trip matrices received with the model are copied below.

Table 2: 2018 Baseline OD Trip Matrices

2018 AM Prior Matrix						
Zone	1	2	3	4	5	Total
1	0	156	18	4	16	194
2	161	0	97	78	388	724
3	30	357	0	5	28	420
4	7	283	6	0	51	347
5	20	856	20	36	0	932
Total	218	1652	141	123	483	2617

2018 PM Prior Matrix						
Zone	1	2	3	4	5	Total
1	0	186	54	14	28	283
2	157	0	253	307	609	1326
3	19	163	0	18	35	234
4	12	172	3	0	23	209
5	31	458	8	80	0	577
Total	219	979	319	419	695	2630

2.3 2025 Existing Scenario and Baseline Scenario OD Trip Matrices

The 2025 existing scenario matrices were developed through a matrix estimation (furnessing) process involving the 2018 existing scenario matrices as the “prior” matrices and 2025 surveyed peak period traffic volumes for SH6, Stalker Road, Lower Shotover Road and Howards Drive.

2.3.1 NZTA and QLDC Traffic Volume Count Data

Traffic volume data from the following two traffic stations on SH6 in the vicinity of Ladies Mile were downloaded for the period 2019 – 2025 from NTA’s TMS website:



- Site Ref: 00600988 (East of Strains Rd)
- Site Ref: 00600991 (East of Lower Shotover Rd)

The 5-day average hourly AM and PM peak volume counts from Site Ref 00600988 were summed and averaged for the four weeks of available data for each of the months of February 2023, April 2023, February 2025, April 2025 (excluding weeks commencing 14/4 and 21/4 due to Easter and Anzac public holidays) and November 2025.

From this data it was determined according to the following average hour by month comparison, that the November 2025 peak hour counts for 7-8 am and 5-6 pm were suitably representative for use as the target generator volume totals for Zone 5 (SH6 east) in the 2025 baseline matrix.

Table 3: SH6 5-Day Average Peak Hour Westbound Volumes per Month (NZTA Site Ref: 00600988)

	AM					Relative to Nov. 25			
	Feb-23	Apr-23	Feb-25	Apr-25	Nov-25	Feb-23	Apr-23	Feb-25	Apr-25
7am-8am Volumes	465	394	516	526	585 use	0.794	0.673	0.882	0.898
8am-9am Volumes	474	444	410	463	463	1.023	0.958	0.884	1.001
	PM					Relative to Nov. 25			
	Feb-23	Apr-23	Feb-25	Apr-25	Nov-25	Feb-23	Apr-23	Feb-25	Apr-25
4pm-5pm Volumes	625	658	685	668	668	0.935	0.985	1.025	1.000
5pm-6pm Volumes	652	662	681	651	676 use	0.965	0.979	1.007	0.964

A similar process was undertaken using the eastbound count data from Site Ref 00600988 to determine the target attractor volume for Zone 5 in the 2025 baseline matrix.

QLDC also provided 24-hour count data for Lower Shotover Road, Stalker Road and Howards Drive from 2025, and the same process was undertaken to establish the growth rate and factor the 2018 origin / destination volumes for each of those roads in the matrices to derive the 2025 existing scenario matrix.

The traffic count data applied from the NZTA count stations and QLDC surveys is attached in Appendix A.

The resulting 2025 existing scenario peak hour trip matrices are copied below.

Table 4: 2025 Existing AM and PM peak hour total trip matrices

2025 Corrected AM Peak Matrix						
Zone	1	2	3	4	5	Total
1	0	180	14	5	13	211
2	231	0	95	125	405	857
3	35	435	0	7	24	500
4	10	411	6	0	52	478
5	12	540	8	24	0	585
	288	1565	123	161	494	2631

2025 Corrected PM Peak Matrix						
Zone	1	2	3	4	5	Total
1	0	195	93	16	28	331
2	164	0	424	330	583	1501
3	19	159	0	18	32	228
4	12	177	5	0	22	217
5	37	527	16	97	0	676
Total	232	1058	538	461	664	2953



2.4 Consented Clarke Group Development Trips

Clarke Group's consented 377 dwelling low density residential development forms part of the consented 2025 Baseline scenario.

The future vehicle trips associated with this development were calculated based on the WSP trip generation rates and trip distribution percentages for general residential (low-density) outlined in Section 3.2 for the original modelling of the Flints Park residential development proposal, derived from survey data of Shotover Country and Lake Hayes Estate.

Table 5 summarises the derived peak hour trips and trip distribution for Clarke Group development based on WSP's low-density AM and PM residential trip rate of 0.74 trips/hour and 0.77 trips/hour respectively.

Table 5: Consented Clarke Group Development Trip Generation and Distribution

				AM PEAK					
				OUT			IN		
	High Density	TRIP GEN. RATE		0.30			0.10		
	Low Density	TRIP GEN. RATE		0.55			0.19		
				TO WEST	TO EAST	TO LSR	FROM WEST	FROM EAST	FROM LSR
		TRIP DIST.		85%	11%	4%	69%	24%	7%
				PM PEAK					
				OUT			IN		
	High Density	TRIP GEN. RATE		0.19			0.29		
	Low Density	TRIP GEN. RATE		0.30			0.47		
				TO WEST	TO EAST	TO LSR	FROM WEST	FROM EAST	FROM LSR
		TRIP DIST.		77%	17%	6%	79%	13%	9%
				Zone					
Simplicity Living 1100 du	6			0	0	0	0	0	0
Clark Group Devel. 377 du	7			175	22	9	50	17	5
Ladies Mile Other	8			0	0	0	0	0	0

2.5 Predicted Simplicity Living Development Trips

Peak hour trips associated with SLL's proposed high-density residential development were calculated using the trip generation rates set out in Bartlett Consulting's Simplicity Living ITA report for high-density living;

- AM Peak = 0.4 trips/hour
- PM Peak = 0.48 trips/hour.

Although the proposed SLL development yield is 1085 residential apartments, the modelling and trip matrices have been based on a total of 1100 dwellings to provide a small buffer should the final development yield change.

Trip distribution percentages were adopted from the WSP derived figures outlined in Table 1 for the original modelling of the Flints Park residential development proposal.



Table 6: Simplicity Living Development Trip Generation and Distribution

AM PEAK					
			OUT		
			IN		
High Density	TRIP GEN. RATE		0.30		
Low Density	TRIP GEN. RATE		0.55		
			TO WEST	TO EAST	TO LSR
			FROM WEST	FROM EAST	FROM LSR
	TRIP DIST.		85%	11%	4%
			69%	24%	7%
Simplicity Living 1100 du	Zone 6		277	35	14
			79	28	7

PM PEAK					
			OUT		
			IN		
High Density	TRIP GEN. RATE		0.19		
Low Density	TRIP GEN. RATE		0.30		
			TO WEST	TO EAST	TO LSR
			FROM WEST	FROM EAST	FROM LSR
	TRIP DIST.		77%	17%	6%
			79%	13%	9%
Simplicity Living 1100 du	Zone 6		158	34	12
			255	41	28

2.6 Alternative Transport Mode-Share

2.6.1 Public Transport: 2018 and 2025 Existing Scenarios

The 2018 WSP model included the two existing bus services operated by Otago Regional Council in the Te Putahi Ladies Mile area:

- The #2 Frankton Hub - Arrowtown service
- The #5 Queenstown - Lake Hayes service.

The #5 bus route and bus stops are modelled through Shotover Country and Lake Hayes Estate as shown in Figure 3 below.



Figure 3: The #5 Queenstown to Lake Hayes Estate public transport route as modelled.



The #2 bus service operates on SH6 between Arrowtown and Frankton bus hub.

A flat rate of 5% PT mode-share has been applied in the derivation of the 2025 existing scenario vehicle trip matrices for baseline Shotover Country and Lake Hayes Estate PT trips. This approximates the increased PT use in the commuter peak periods since the 2018 model was developed.

2.6.2 Public Transport: 2025 Baseline development (Clarke Group 377 dwellings)

PT mode-share for the Flints Park development (now Clarke Group development) in the 2018 WSP model was reflected through following percentage of trips being deducted from the total OD trip generation matrices, resulting in vehicle trip OD matrices that were loaded in the model:

AM Peak

- 10% for outbound trips to the west
- 5% for inbound trips from the west

PM Peak

- 5% for outbound trips to the west
- 10% for inbound trips from the west

These percentages have been carried over unchanged for Baseline PT mode-share concerning the Clarke Group development given that this a consented low-density residential development.

However, it is noted that the Transport Strategy² that supported the TPLM Plan Variation that became operative on 6 December 2024, adopted a future peak period PT mode share of 43% for the completed TPLM area.

It also anticipated a further 14% of peak period trips would be non-car driver-based trips as shown in the mode-shift predictions Table 7 copied below.

Table 7: Te Putahi Ladies Mile Plan Variation Transport Strategy Mode-Share Targets

Mode	%
Bus	43%
Car Share/Car Pool	9%
ebike	5%
Walk	0%
Park and Ride	0%
Total non-car drive alone	57%
Car drive alone	43%
Total	100%

2.6.3 Public Transport: SLL Development

The Simplicity Living Development ITA by Barlett Consulting sets out the basis for the PT mode-share adopted for the SLL high-density development peak hour trips.

² Te Putahi Ladies Mile Masterplan Transport Strategy v2, page 4



The existing #5 and #2 bus routes operate on 30-minute frequencies in the AM and PM peaks. However, Otago Regional Council's PT Business Case³ anticipates the following PT capacity improvements in the period 2027-2030:

- Route 2, Frankton-Arrowtown will have 30-minute services with larger buses, ie remains at 2 buses in the peak hour but each with increased carrying capacity.
- Route 5, Lake Hayes Estate-Queenstown will move to every 15 minutes with larger buses, ie 4 buses per hour and increase capacity per bus.

20% PT mode-share has been applied for SLL generated trips in the Baseline + SLL Development AM and PM peak models, and 15% PT mode-share has been applied to Shotover Country, Lake Hayes Estate and Clarke Group for this full development scenario noting that these rates remain significantly less than the 43% adopted in the TPLM Transport Strategy and less than ORC's PT Business Case target mode-share of 25% and 29% respectively for all AM and PM peak period trips crossing the Shotover River Bridge by 2039⁴.

2.6.4 Walking and Cycling: Baseline Scenario

Walking and cycling modes of transport are not explicitly modelled, however it is understood that the 2018 trip generation rates derived by WSP implicitly account for this.

When the 2018 model was constructed and calibrated, WSP identified⁵ the walking and cycling mode shares in Queenstown to be 10% and 1% respectively, although the surveyed locations informing these percentages were surrounding Queenstown CBD at Gorge Road, Lake Esplanade and Frankton Road. This indicates that cycling may not significantly reduce the number of vehicle trips, although the survey was undertaken when e-bikes and e-scooters were much less popular modes of travel than in 2026.

Walking is also unlikely to be as high as 10% in the early years of developing the TPLM area due to the lack of community and commercial amenities within a walkable distance of the SLL and Clarke developments.

2.6.5 Walking and Cycling: SLL Development Trips

Achieving 5% cycling mode-share in future as predicted by the TPLM Plan Variation Transport Strategy is not considered to be fanciful given the path connectivity proposed from the SLL site to the Twin Rivers cycle path over the Shotover River, coupled with the rising popularity of e-bikes and scooters for commuting. Furthermore, the anticipated new primary school and secondary school in the TPLM area in future will enable more walking and cycling trips.

However, no further deduction has been made to the SLL or Flints Park development vehicle trip generation in the OD matrices. This means there is a further level of conservatism in the modelling outputs.

2.6.6 Ride-Share and Working from Home: Baseline Scenario

There is no specific allowance for ride-share in the WSP model. However, this is understood to be implicitly captured in the peak period trip generation rates derived by WSP (0.74 trips/dwelling unit (du) in the AM peak and 0.77 trips/du in the PM peak referenced in section 3.2).

³ Section 3.8: Service Levels, Queenstown Public Transport Business Case Summary Report, 3 April 2024.

⁴ Table 1, Queenstown Public Transport Business Case Summary Report, 3 April 2024

⁵ Ladies Mile HIF DBC Integrated Transport Assessment, Section 3.6, WSP/Opus 2018.



No High Occupancy Vehicle (HOV) lanes are included in the 2018 base model network.

2.6.7 Ride-Share and Working from Home: SLL Development

No allowance has been made in the development trip calculations to deduct ride share related trips or trips that are not taken due to work from home. It is reasonable to presume an element of each is accounted for already in the trip generation rates derived by WSP that were based on 2018 surveys of Lake Hayes Estate and Shotover Country. However, Covid lockdowns have occurred since those surveys which has made working from home for a few days per week a more common offering by many businesses.

Excluding trip deductions for working-from-home provides a further level of conservatism to the model outputs.

2.6.8 Heavy Vehicle Trips

Heavy vehicle trips were included in the received 2018 trip matrices and updated for 2025 existing scenario matrices. SLL's proposed high-density residential development is expected to generate negligible heavy commercial vehicle (HCV) trips in the completed state (ie post-construction), so no additional heavy vehicle trips have been modelled in the Baseline + SLL Development scenarios.

2.7 2025 Baseline + Development O/D Trip Matrices

The resultant 2025 Baseline + SLL light vehicle (LV) origin/destination trip generation matrices for the AM and PM peak hours are provided below.

The full two-hour LV and HCV matrices are attached in Appendix B.

Table 8: 2025 AM and PM Baseline + SLL Development O/D Trip Matrices (LV)

Total Peak Hour									
AM	Light Vehicles								
	1	2	3	4	5	6	7	8	Total
1	0	159	11	4	11	6	4	0	197
2	219	0	86	113	385	63	48	0	914
3	27	341	0	5	19	0	0	0	392
4	8	353	5	0	44	0	0	0	410
5	12	513	7	22	0	22	17	0	593
6	11	221	0	0	28	0	0	0	261
7	8	158	0	0	20	0	0	0	185
8	0	0	0	0	0	0	0	0	0
Total	286	1745	110	144	508	91	69	0	2952
Total Peak Hour									
PM	Light Vehicles								
	1	2	3	4	5	6	7	8	Total
1	0	181	82	14	26	22	14	0	340
2	156	0	382	298	554	204	132	0	1726
3	17	141	0	16	28	0	0	0	201
4	11	162	5	0	20	0	0	0	199
5	35	500	14	87	0	32	21	0	690
6	10	127	0	0	27	0	0	0	164
7	6	78	0	0	17	0	0	0	100
8	0	0	0	0	0	0	0	0	0
Total	234	1189	484	415	672	259	167	0	3420



2.8 Network Infrastructure Changes

2.8.1 Baseline Network

BBO created a Baseline model network by modifying the WSP 2018 modelled network to include new 3-arm signalised intersection on SH6 require to access the Clarke Group development (377 dwellings), and a 3-arm signalised upgrade of Howards Drive / SH6 intersection that is being constructed by NZTA in place of the existing priority-controlled intersection.

Figure 4 illustrates the Baseline Te Putahi Ladies Mile network for modelling purposes.



Figure 4: Baseline SH6 Te Putahi Ladies Mile Modelled Intersections.

2.8.2 SLL Development Modelled Network

The Baseline network was further modified to accommodate the SLL development trips by including the following infrastructure changes:

1. Replacing the existing roundabout at SH6 / Stalker Road / Lower Shotover Road with a four-arm signalised intersection.
2. A new westbound bus lane on SH6 between Stalker Road and the Shotover River Bridge
3. A 75m long (approximate) bus lane on the Stalker Road northbound approach to the SH6 signals intersection
4. A new signalised three-arm intersection at Lower Shotover Road / SLL Development Collector Road.
5. Reduced SH6 speed limit through Ladies Mile to 60 km/h.

The signalised intersection at SH6 / Stalker Road / Lower Shotover Road includes signalised pedestrian crossings over the eastern SH6 arm of the intersection and the Stalker Road arm, as shown in Figure 5.

Three new bus stops are also included at the SH6 / Stalker Road / Lower Shotover Road intersection, as shown in Figure 5 on:

1. the SH6 westbound exit from the intersection,
2. the SH6 eastbound exit from the intersection
3. the Stalker Road exit from the intersection.





Figure 5: Modelled SH6 / Stalker Rd / Lower Shotover Road and Collector Rd Signal Intersections

2.9 Signal Intersection Phase Sequences and Timing Optimisation

The Baseline and Baseline + SLL Development signal intersections were first modelled using SIDRA Intersection 11 to provide initial practical signal phase sequences and cycle times for input to the VISSIM microsimulation model where further refinement of phase timings and offsets was undertaken iteratively with the dynamic trip assignment process so that queues and delays were minimised firstly for SH6, then Stalker Road, Howards Drive and Lower Shotover Road.

Note: For the Baseline + SLL Development scenarios, the initial turning flows used in SIDRA were approximated from the peak hour OD trip generation matrices. The matrices provide the travel demand volumes input at the perimeter of the network rather than the turning volumes at the stop line of the intersections.

For the Baseline + SLL Development scenario, the three signal intersections on SH6 (Lower Shotover Road, Clarke Access Road and Howards Drive) were modelled in SIDRA and VISSIM as connected signals with a common optimised signal cycle time so signal phase times and offsets enabled coordination of the SH6 westbound flow direction in the AM peak period and SH6 eastbound flow in the PM peak period.

Figure 6 illustrates the signal intersection network in the SIDRA model.



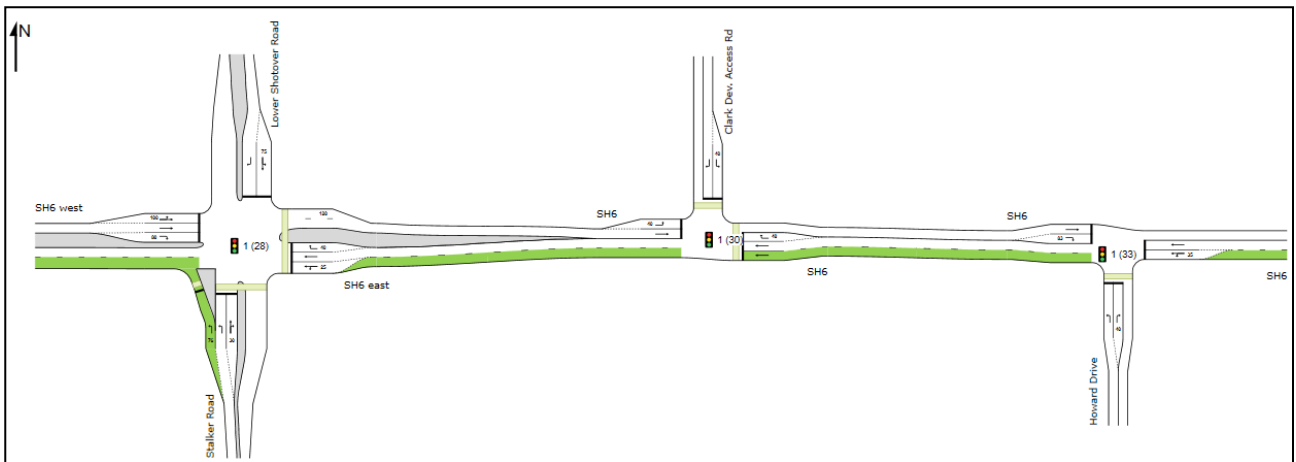


Figure 6: SIDRA Model of SH6 intersections: Stalker Rd, Clarke Access and Howards Drive

The Lower Shotover Road / Collector Road intersection is modelled as an isolated signal intersection as shown in Figure 7.

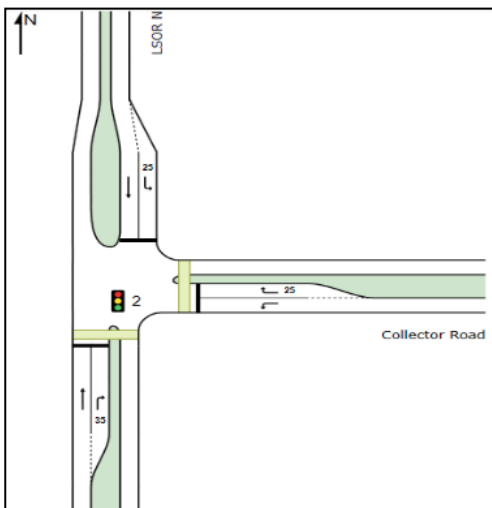


Figure 7: SIDRA Model of Lower Shotover Road / Collector Road signal intersection

2.9.1 Baseline Signal Phase Sequences and Timings

Figure 8 and Figure 9 show the signal phase sequences derived for the SH6 / Clarke Road and SH6 / Howards Drive intersections for the 2025 Baseline scenario. A practical cycle time length of 75 seconds was determined for both intersections. This applied to both the AM and PM Peak periods but with different phase timings to suit the dominant westbound SH6 flow direction in the AM and the eastbound flow direction in the PM.

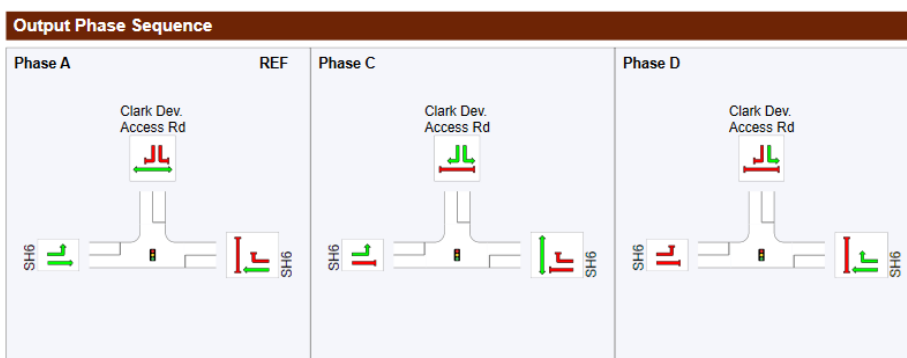


Figure 8: SIDRA Signal Phase Sequence: SH6 / Clarke Development Access Road Intersection



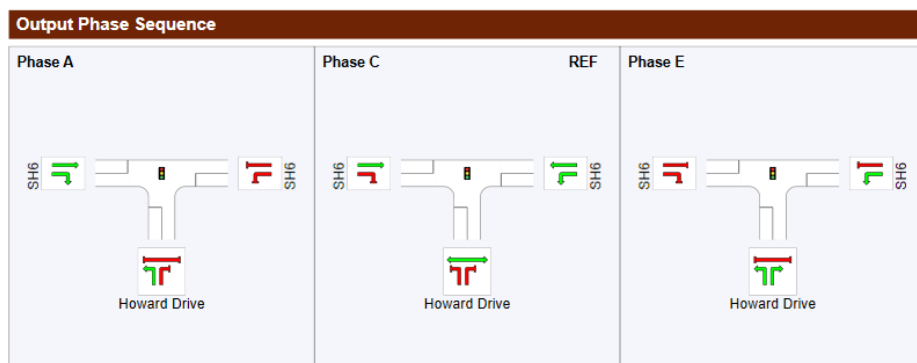


Figure 9: SIDRA Signal Phase Sequence: SH6 / Howards Drive Intersection

2.9.2 Baseline + SLL Development Signal Phase Sequence and Timings

Figure 10 and Tables 9 and 10 show the optimised phase sequence and timings respectively for the SH6 / Stalker Road / Lower Shotover Road intersection in the Baseline + SLL Development scenario.

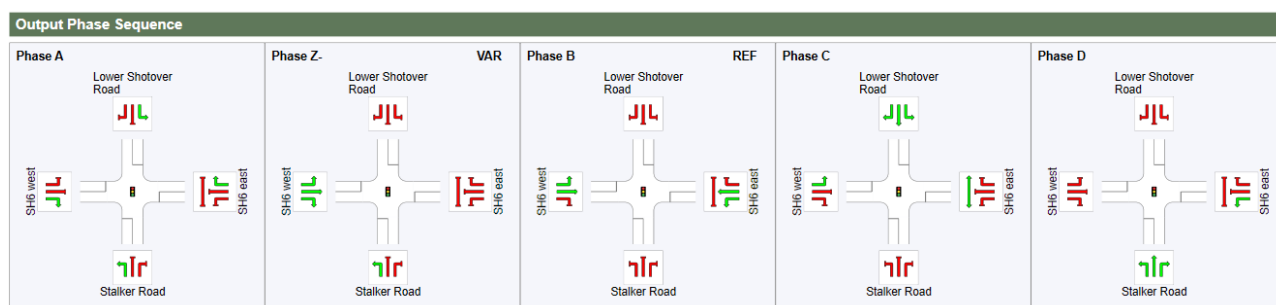


Figure 10: SH6 / Stalker Road / Lower Shotover Road signal intersection Phase Sequence

Table 9: SH6 / Stalker Road / Lower Shotover Road signal intersection AM Peak Phase Timings

AM Peak SIDRA Optimised Cycle Time; 106 seconds

Cycle Time = 106 seconds (Network Optimum Cycle Time - Minimum Delay)					
Phase Sequence: Four-Phase Right Turn Lead and Split Approach					
Reference Phase: B					
Offset: 0					
Phase	A	Z-	B	C	D
Phase Change Time (sec)	85	97	0	46	73
Green Time (sec)	6	3	46	21	6
Phase Time (sec)	12	3	52	27	12
Phase Split	11%	3%	49%	25%	11%

AM Peak VISSIM Refined Phase Timings; CT = 106 seconds, Offset = 0 seconds

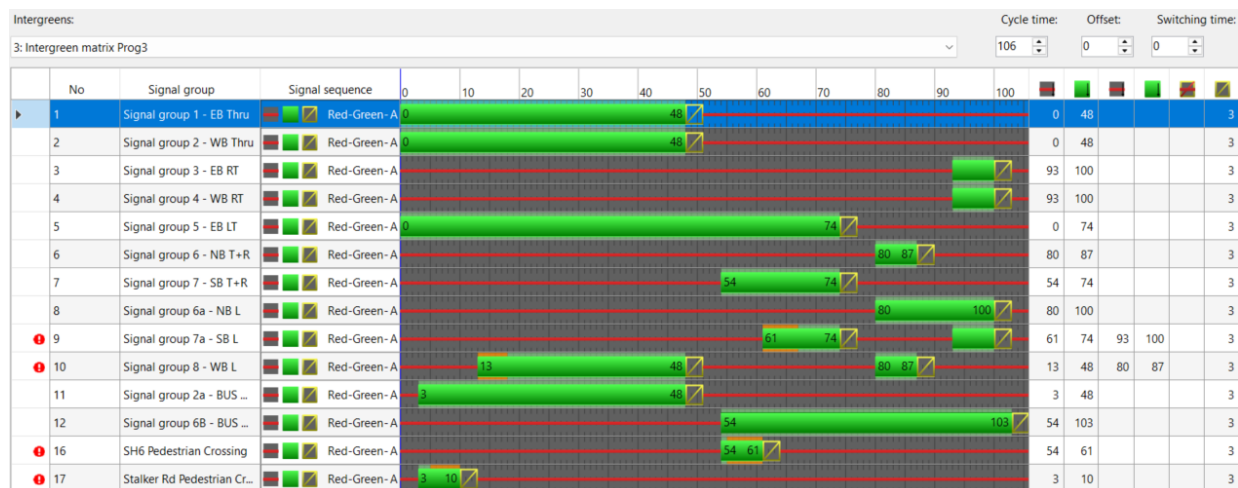


Table 10: SH6 / Stalker Road / Lower Shotover Road signal intersection PM Peak Phase Timings

PM Peak SIDRA Optimised Cycle Time; 114 seconds

Cycle Time = 114 seconds (Network Optimum Cycle Time - Minimum Delay)					
Phase Sequence: Four-Phase Right Turn Lead and Split Approach					
Reference Phase: B					
Offset: 0					
Phase	A	Z-	B	C	D
Phase Change Time (sec)	73	85	0	35	61
Green Time (sec)	6	23	35	20	6
Phase Time (sec)	12	23	41	26	12
Phase Split	11%	20%	36%	22%	11%

PM Peak VISSIM Refined Phase Timings; CT = 114 seconds, Offset = 70 seconds

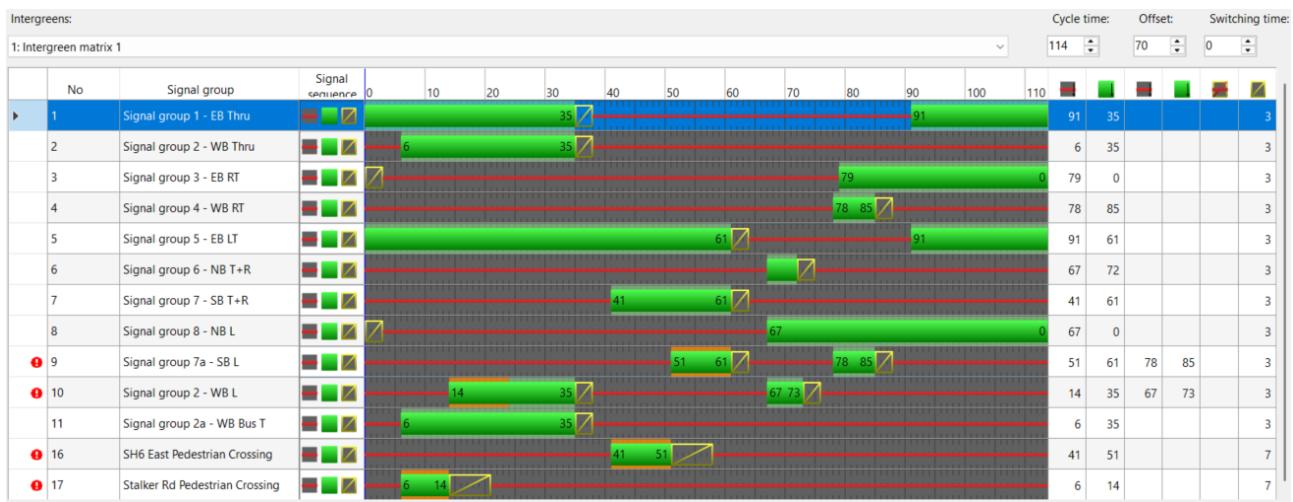


Figure 11 and Tables 11 and 12 show the phase sequence and timings respectively for the SH6 / Clarke Access Road intersection with the common AM and PM Peak cycle times governed by the SH6 / Stalker Road / Lower Shotover Road intersection.

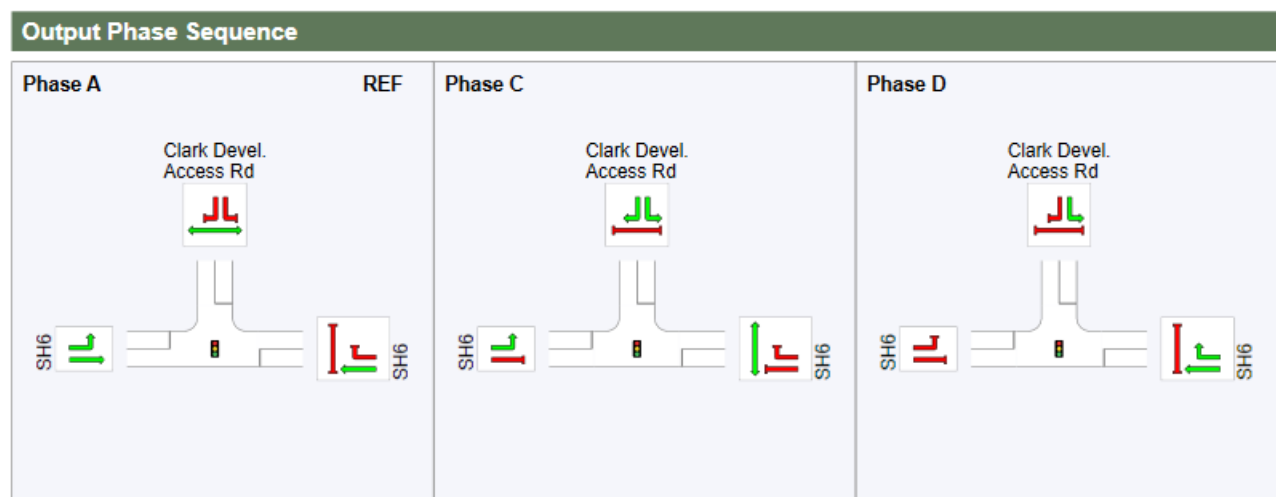


Figure 11: SH6 / Clarke Access Road intersection Phase Sequence



Table 11: SH6 / Clarke Access Road intersection AM Peak Phase Timings

AM Peak SIDRA Optimised Cycle Time; 106 seconds

Cycle Time = 106 seconds (Network Optimum Cycle Time - Minimum Delay)			
Phase Sequence: Leading RT with Split Phasing			
Reference Phase: A			
Offset: 17			
Phase	A	C	D
Phase Change Time (sec)	17	86	5
Green Time (sec)	63	19	6
Phase Time (sec)	69	25	12
Phase Split	65%	24%	11%

AM Peak VISSIM Refined Phase Timings; CT = 106 seconds

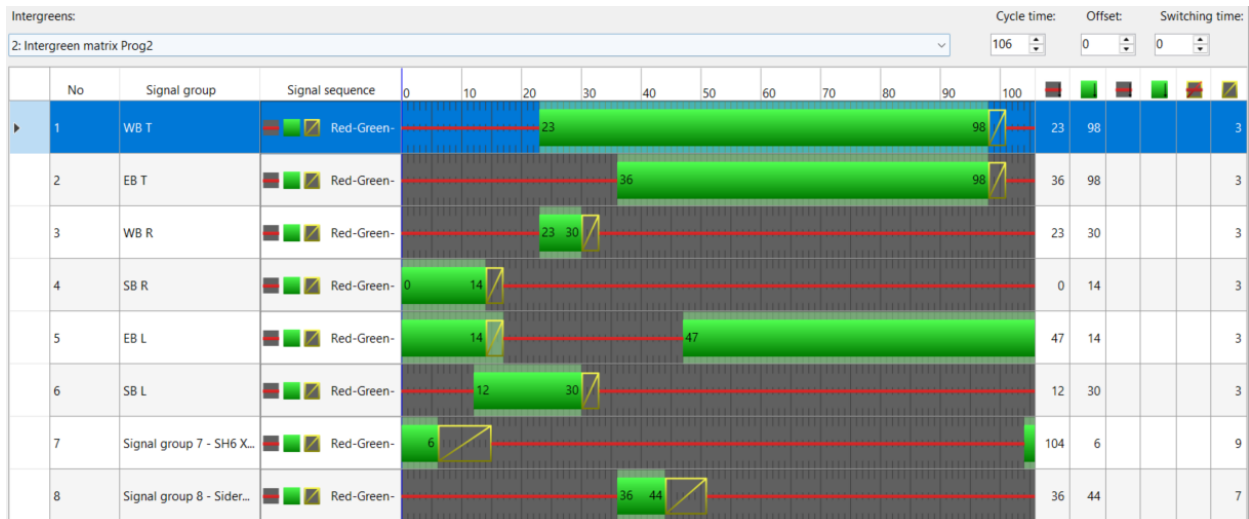


Table 12: SH6 / Clarke Access Road intersection PM Peak Phase Timings

PM Peak SIDRA Optimised Cycle Time; 114 seconds

Cycle Time = 114 seconds (Network Optimum Cycle Time - Minimum Delay)			
Phase Sequence: Leading RT with Split Phasing			
Reference Phase: A			
Offset: 111			
Phase	A	C	D
Phase Change Time (sec)	111	82	97
Green Time (sec)	79	9	8
Phase Time (sec)	85	15	14
Phase Split	75%	13%	13%

PM Peak VISSIM Refined Phase Timings; CT = 114 seconds



Figures 12 and 13, and Tables 13 and 14 show the phase sequence and timings respectively for the SH6 / Howards Drive signal intersection with the common AM and PM Peak cycle times governed by the SH6 / Stalker Road / Lower Shotover Road intersection.

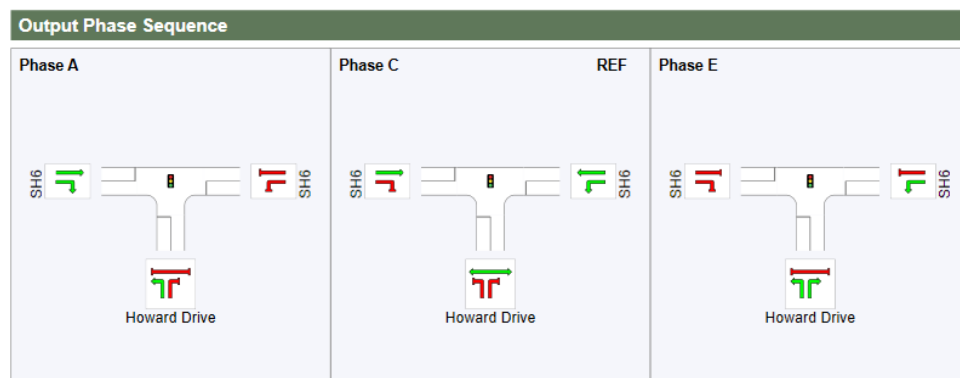


Figure 12: SH6 / Howards Drive intersection AM Peak Phase Sequence

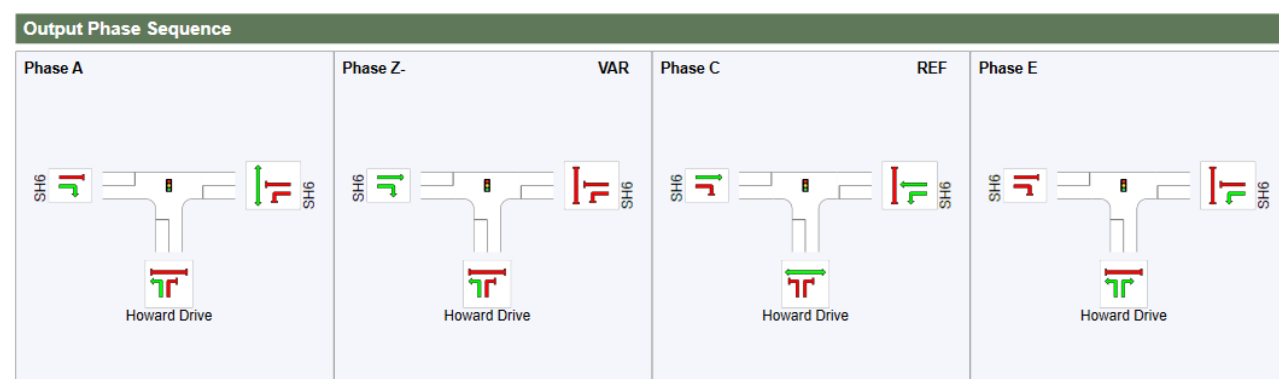


Figure 13: SH6 / Howards Drive intersection PM Peak Phase Sequence

Table 13: SH6 / Howards Drive Road intersection AM Peak Phase Timings

AM Peak SIDRA Optimised Cycle Time; 106 seconds

Cycle Time = 106 seconds (Network Optimum Cycle Time - Minimum Delay)			
Phase Sequence: Leading RT with Split Phasing			
Reference Phase: C			
Offset: 67			
Phase	A	C	E
Phase Change Time (sec)	46	67	34
Green Time (sec)	15	67	6
Phase Time (sec)	21	73	12
Phase Split	20%	69%	11%

AM Peak VISSIM Refined Phase Timings; CT = 106 seconds

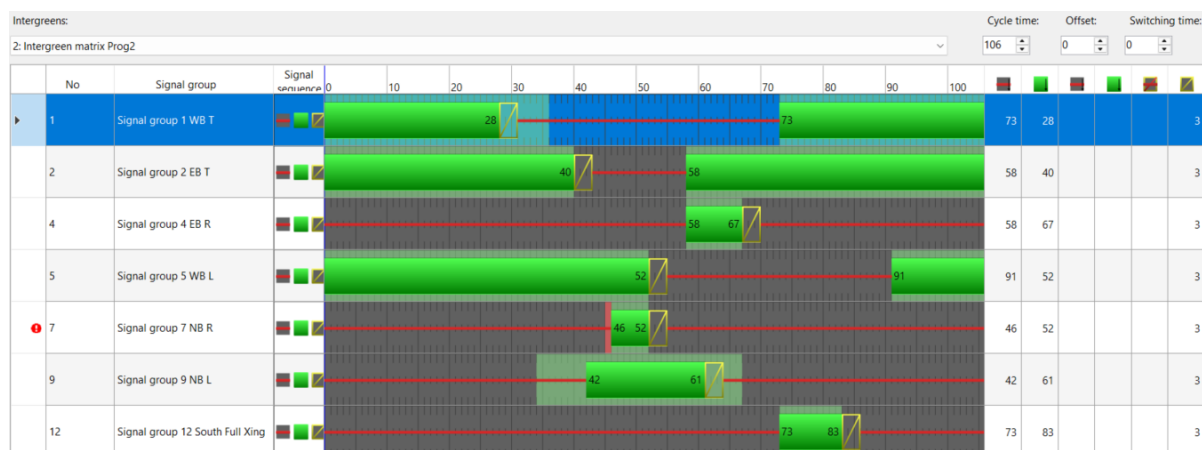


Table 14: SH6 / Howards Drive Road intersection PM Peak Phase Timings

PM Peak SIDRA Optimised Cycle Time; 114 seconds

Cycle Time = 114 seconds (Network Optimum Cycle Time - Minimum Delay)
Phase Sequence: Leading RT with Split Phasing
Reference Phase: C
Offset: 57

Phase	A	Z-	C	E
Phase Change Time (sec)	17	25	57	5
Green Time (sec)	2	32	56	6
Phase Time (sec)	3	38	62	12
Phase Split	3%	33%	54%	11%

PM Peak VISSIM Refined Phase Timings; Cycle Time = 114 seconds; Offset = 109 seconds

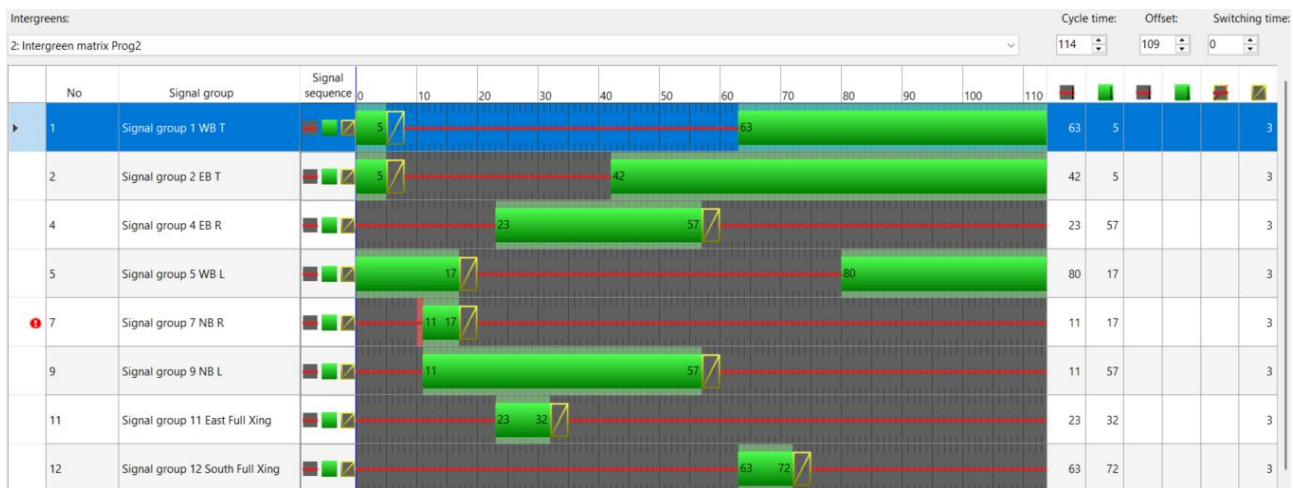


Figure 14 and Tables 15 and 16 show the signal phase sequence and timings respectively for the Lower Shotover Road / Collector Road intersection, modelled as isolated signals.

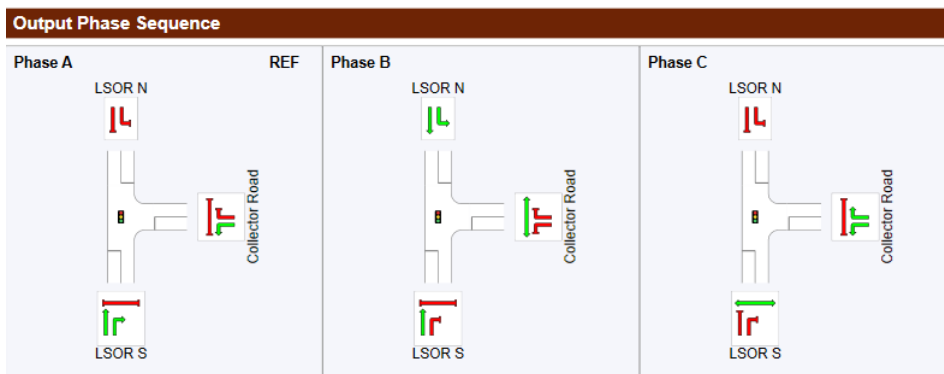


Figure 14: Lower Shotover Road / Collector Road intersection Phase Sequence

Table 15: Lower Shotover Road / Collector Road intersection AM Peak Phase Timings

AM Peak Cycle Time = 70 seconds

Phase Timing Summary			
Phase	A	B	C
Phase Change Time (sec)	0.0	17.3	50.3
Green Time (sec)	11.3	27.0	13.7
Phase Time (sec)	17.3	33.0	19.7
Phase Split	25%	47%	28%
Phase Frequency (%)	100.0	100.0	100.0



Table 16: Lower Shotover Road / Collector Road intersection PM Peak Phase Timings

PM Peak Cycle Time = 60 seconds

Phase Timing Summary			
Phase	A	B	C
Phase Change Time (sec)	0.0	17.8	44.7
Green Time (sec)	11.8	20.9	9.3
Phase Time (sec)	17.8	26.9	15.3
Phase Split	30%	45%	25%
Phase Frequency (%)	100.0	100.0	100.0

2.10 Transport Model Run Iterations and Convergence

The AM and PM peak period models in PTV VISSIM software are two-hour vehicle simulation models that use the SIDRA optimised signal timings as an input for the simulated intersections. The simulation models include a “warm-up” period of one hour traffic circulating through the network before the peak hour travel demands are released and results start being recorded. The warm-up trip matrices were derived using WSP’s methodology in the received spreadsheets. The AM warm up hour is approximately 90% of the AM peak hour matrix and the PM warm up hour is 86% of the PM peak hour.

The signal cycle times and phase timings for the four signalised intersections were input to the TPLM VISSIM model, and the models were each run through numerous dynamic assignment iterations until the convergence criteria was met.

The convergence criteria required 85% of all Travel Time on paths (routes) not exceeding 15% difference from the previous recorded travel time for each path.

It was noted that convergence sometimes took over 50 iterations to achieve for the AM Peak Baseline + SLL Development model due to the level of congestion experienced on SH6 westbound, Stalker Road, Howards Drive and Lower Shotover Road. This is not unusual for congested networks with alternative route options (such as this) as ‘flip-flopping’ of trip assignment between alternative routes from small incremental volume changes can have significant effects on delay and degree of saturation.

Following convergence, the dynamic trip assignment function in PTV VISSIM is switched off and the AM and PM models are then run five times with different random seed variables which influences the stochastic nature of the input pattern of vehicles per 15-minute interval, to represent the typical daily variability in traffic arrivals and platooning of traffic.

Section 3 presents the performance results of the network intersections of interest and the journey times through eight general traffic routes and the four public transport routes. Performance results are the averages of the five random seed runs in each AM and PM model.



3. Modelling Results

3.1 2025 Baseline Model

Table 17 presents the 2025 Baseline AM peak hour intersection performance results for the three baseline scenario intersections on SH6;

- Existing SH6 / Stalker Road / Lower Shotover Road roundabout
- Consented SH6 / Clarke Development Access Road signal intersection
- NZTA funded SH6 / Howards Drive signal intersection upgrade.

Table 18 presents the Baseline AM Peak Journey Times through the network.

Table 16: 2025 AM Baseline Peak Hour Performance

2025 Baseline: SH6/Stalker Rd Roundabout, SH6 / Clarksignalised intersection, SH6/Howards Drive signal intersection											
No Simplicity development; Clark development = 377 dwellings						10% PT Mode-share Clark Development trips					
						5% PT modeshare Shotover Country and Lake Hayes estate					
AM Peak Hour											
Intersection Movement	Approach Leg	Direction	Movement	VPH	Av. Q (m)	Av. Max. Q (m)	Av.Delay (s)	LOS	LOS Val	Emiss CO	Emiss Nox
1: SH6/Stalker - 10@301.5 - 2@1.3	SH6 W	W-E	T	577	1	28	4	A	1	810	158
1: SH6/Stalker - 10@301.5 - 7@25.0	SH6 W	W-S	R	97	1	28	9	A	1	153	30
1: SH6/Stalker - 10@301.5 - 33@27.4	SH6 W	W-W	U	0							
1: SH6/Stalker - 10@301.5 - 10167@1.5	SH6 W	W-NW	L	233	1	28	9	A	1	334	65
1: SH6/Stalker - 128@69.1 - 2@1.3	SH6 E	E-E	U	0							
1: SH6/Stalker - 128@69.1 - 7@25.0	SH6 E	E-S	L	6	264	444	98	F	6	28	5
1: SH6/Stalker - 128@69.1 - 33@27.4	SH6 E	E-W	T	1052	264	444	120	F	6	7234	1407
1: SH6/Stalker - 128@69.1 - 10167@1.5	SH6 E	E-NW	R	29	264	444	107	F	6	133	26
1: SH6/Stalker - 129@12.3 - 2@1.3	LSQR	NW-E	L	21	5	64	18	C	3	38	7
1: SH6/Stalker - 129@12.3 - 7@25.0	LSQR	NW-S	T	13	5	64	21	C	3	21	4
1: SH6/Stalker - 129@12.3 - 33@27.4	LSQR	NW-W	R	219	5	64	48	E	5	591	115
1: SH6/Stalker - 129@12.3 - 10167@1.5	LSQR	NW-NW	U	0							
1: SH6/Stalker - 135@0.3 - 2@1.3	Stalker	S-E	R	13	486	648	477	F	6	483	94
1: SH6/Stalker - 135@0.3 - 7@25.0	Stalker	S-S	U	0							
1: SH6/Stalker - 135@0.3 - 33@27.4	Stalker	S-W	L	331	486	648	503	F	6	12819	2494
1: SH6/Stalker - 135@0.3 - 10167@1.5	Stalker BL	S-NW	T	29	486	648	474	F	6	857	167
1: SH6/Stalker		Total		2620	208	648	127	F	6	23224	4519
2: SH6/Howards - 1@2910.5 - 80@71.1	SH6 E	E-W	T	532	564	889	341	F	6	7402	1440
2: SH6/Howards - 1@2910.5 - 115@26.4	SH6 E	E-S	L	23	564	889	265	F	6	246	48
2: SH6/Howards - 118@30.7 - 80@71.1	Howard	S-W	L	451	129	335	142	F	6	3468	675
2: SH6/Howards - 118@30.7 - 82@33.2	Howard	S-E	R	58	129	335	110	F	6	437	85
2: SH6/Howards - 119@109.8 - 82@33.2	SH6 W	W-E	T	455	0	14	1	A	1	327	64
2: SH6/Howards - 119@109.8 - 115@26.4	SH6 W	W-S	R	124	11	50	53	D	4	249	49
2: SH6/Howards		Total		1643	176	889	161	F	6	13427	2612
33: SH6 / Clark- 2@62.8 - 83@8.1	SH6 W	W-N	L	53	0	35	9	A	1	39	7
33: SH6 / Clark- 2@62.8 - 121@79.3	SH6 W	W-E	T	557	21	130	22	C	3	714	139
33: SH6 / Clark- 120@10.0 - 83@8.1	SH6 E	E-N	R	15	227	350	77	E	5	51	10
33: SH6 / Clark- 120@10.0 - 128@8.2	SH6 E	E-W	T	965	227	350	77	E	5	4498	875
33: SH6 / Clark- 123@29.1 - 121@79.3	New Road	N-E	L	21	7	38	24	C	3	32	6
33: SH6 / Clark- 123@29.1 - 128@8.2	New Road	N-W	R	121	7	38	62	E	5	470	91
33: SH6 / Clark		Total		1732	52	350	55	E	5	5823	1133

Table 18: 2025 AM Baseline Average Journey Times

AM Peak Hour	Av. Travel Time				
	Vph	seconds	min:sec	DIST(m)	Average Speed (km/h)
Travel Path					
102: Lower Shotover - SH6 West	173	186	3:06	1990	38.5
201: SH6 West - Lower Shotover	233	135	2:15	1970	52.6
203: SH6 West - Stalker	40	152	2:32	1809	42.7
204: SH6 West - Nerin Sq	97	274	4:34	2816	37.0
205: SH6 West - SH6 East	409	160	2:40	2426	54.7
302: Stalker - SH6 West	150	669	11:09	1738	9.4
402: Nerin Sq - SH6 West	305	535	8:55	2815	18.9
502: SH6 East - SH6 West	496	644	10:44	2435	13.6
Public Transport with Howards Dr and SH6 WB Bus Lanes					
901: Bus Hardware to Arrowtown	4	193	3:13	2842	53.1
902: Bus Arrowtown to Hardware	4	656	10:56	2851	15.7
903: Bus Hardware to Lake Hayes Estate	4	790	13:10	6609	30.1
904: Bus Lake Hayes Estate to Hardware	3	1328	22:08	6573	17.8



Table 19 presents the 2025 Baseline PM peak hour intersection performance results for the three intersections on SH6, and Table 20 presents the Baseline PM Peak Journey Times through the network.

Table 19: 2025 PM Baseline Peak Hour Performance

PM Peak Hour Intersection	Approach Leg	Direction	Movement	VPH	Av. Q (m)	Av. Max. Q (m)	Av. Delay (s)	LOS	LOS	Emiss CO	Emiss Nox
1: SH6/Stalker - 10@301.5 - 2@1.3	SH6 W	W-E	T	952	236	1271	87	F	6	5632	1108
1: SH6/Stalker - 10@301.5 - 7@25.0	SH6 W	W-S	R	397	236	1271	39	E	5	1205	234
1: SH6/Stalker - 10@301.5 - 33@27.4	SH6 W	W-W	U	0							
1: SH6/Stalker - 10@301.5 - 10167@1.5	SH6 W	W-NW	L	195	236	1271	35	D	4	512	100
1: SH6/Stalker - 128@69.1 - 2@1.3	SH6 E	E-E	U	0							
1: SH6/Stalker - 128@69.1 - 7@25.0	SH6 E	E-S	L	20	14	168	20	C	3	26	5
1: SH6/Stalker - 128@69.1 - 33@27.4	SH6 E	E-W	T	793	14	168	17	C	3	1190	232
1: SH6/Stalker - 128@69.1 - 10167@1.5	SH6 E	E-NW	R	55	14	168	18	C	3	72	14
1: SH6/Stalker - 129@12.3 - 2@1.3	LSOR	NW-E	L	37	254	429	462	F	6	849	165
1: SH6/Stalker - 129@12.3 - 7@25.0	LSOR	NW-S	T	59	254	429	434	F	6	1056	205
1: SH6/Stalker - 129@12.3 - 33@27.4	LSOR	NW-W	R	128	254	429	415	F	6	2456	478
1: SH6/Stalker - 129@12.3 - 10167@1.5	LSOR	NW-NW	U	0							
1: SH6/Stalker - 135@0.3 - 2@1.3	Stalker	S-E	R	29	1	30	62	F	6	122	24
1: SH6/Stalker - 135@0.3 - 7@25.0	Stalker	S-S	U	0							
1: SH6/Stalker - 135@0.3 - 33@27.4	Stalker	S-W	L	158	0	30	12	B	2	233	45
1: SH6/Stalker - 135@0.3 - 10167@1.5	Stalker BL	S-NW	T	19	1	30	11	B	2	27	5
1: SH6/Stalker		Total		2841	126	1271	77		6	13247	2577
2: SH6/Howards - 1@2910.5 - 80@71.1	SH6 E	E-W	T	611	15	136	17	B	2	1162	226
2: SH6/Howards - 1@2910.5 - 115@26.4	SH6 E	E-S	L	94	15	136	15	B	2	146	28
2: SH6/Howards - 118@30.7 - 80@71.1	Howard	S-W	L	186	6	42	20	B	2	330	64
2: SH6/Howards - 118@30.7 - 82@39.2	Howard	S-E	R	24	6	42	33	C	3	57	11
2: SH6/Howards - 119@109.8 - 82@39.2	SH6 W	W-E	T	620	0	10	1	A	1	420	82
2: SH6/Howards - 119@109.8 - 115@26.4	SH6 W	W-S	R	308	33	90	58	E	5	655	127
2: SH6/Howards		Total		1842	14	136	19	B	2	2863	557
33: SH6 / Clark- 2@62.8 - 83@8.1	SH6 W	W-N	L	102	237	315	32	C	3	165	32
33: SH6 / Clark- 2@62.8 - 121@79.3	SH6 W	W-E	T	913	330	409	45	D	4	2094	407
33: SH6 / Clark- 120@10.0 - 83@8.1	SH6 E	E-N	R	22	1	69	46	D	4	35	7
33: SH6 / Clark- 120@10.0 - 128@8.2	SH6 E	E-W	T	773	1	69	9	A	1	705	137
33: SH6 / Clark- 123@29.1 - 121@79.3	Flints Park	N-E	L	17	5	36	30	C	3	28	6
33: SH6 / Clark- 123@29.1 - 128@8.2	Flints Park	N-W	R	91	4.8	36	33	C	3	174	34
33: SH6 / Clark		Total		1917	116	409	29	C	3	3198	622

Table 20: 2025 PM Baseline Average Journey Times

PM Peak Hour	Av. Travel Time				
Travel Path	Vph	seconds	min:sec	DIST(m)	Average Speed (km/h)
102: Lower Shotover - SH6 West	131	577.7	9:38	2018	12.6
201: SH6 West - Lower Shotover	161	172.8	2:53	1975	41.1
203: SH6 West - Stalker	156	189.1	3:09	1809	34.4
204: SH6 West - Nerin Sq	228	393.9	6:34	2816	25.7
205: SH6 West - SH6 East	557	275.6	4:36	2426	31.7
302: Stalker - SH6 West	75	137.9	2:18	1738	45.4
402: Nerin Sq - SH6 West	148	247.7	4:08	2815	40.9
502: SH6 East - SH6 West	546	182.8	3:03	2435	48.0
Public Transport (no Howards Bus Lane)					
901: Bus Hardware to Arrowtown	4	306.2	5:06	2843	33.4
902: Bus Arrowtown to Hardware	4	202.1	3:22	2851	50.8
903: Bus Hardware to Lake Hayes Estate	4	825.6	13:46	6609	28.8
904: Bus Lake Hayes Estate to Hardware	4	818.4	13:38	6573	28.9

3.2 2025 Baseline + SLL Development

Table 21 presents the 2025 Baseline + Simplicity Living Development AM peak hour intersection performance results for the four signalised intersections of interest;

- Proposed signal intersection of SH6 / Stalker Road / Lower Shotover Road
- Consented SH6 / Clarke Development Access Road signal intersection
- SH6 / Howards Drive signal intersection upgrade
- Proposed Collector Road / Lower Shotover Road signal intersection.

Table 22 presents the 2025 Baseline + Simplicity Living Development AM peak Journey Times.



Table 21: 2025 AM Baseline + SLL Development Intersection Performance Results

2025 4-Arm Signal Intersection. SH6 Westbound Bus Lane (Stalker to Bridge), 85m Stalker Road Bus Lane, SH6/Howards Drive signal intersection (3-arm)											
Simplicity 1100 Dwellings; Clark Group 377 dwellings						20% PT Modeshare SLL and Clark 15% PT Modeshare Shotover Country and Lake Hayes Estate					
AM Peak Hour											
Intersection Movement	Approach Leg	Direction	Movement	VPH	Av. Q (m)	Av. Max. Q (m)	Av.Delay (s)	LOS	LOS Val	Emiss CO	Emiss Nox
t: SH6/Stalker - 10@340.4 - 2@13	SH6 W	W-E	T	579	14	90	24	C	3	1212	236
t: SH6/Stalker - 10@340.4 - 7@44.8	SH6 W	W-S	R	85	10	48	69	E	5	236	46
t: SH6/Stalker - 10@340.4 - 10167@1.8	SH6 W	W-NW	L	285	14	90	14	B	2	451	88
t: SH6/Stalker - 128@69.0 - 7@44.8	SH6 E	E-S	L	4	332	457	55	D	4	8	2
t: SH6/Stalker - 128@69.0 - 33@36.2	SH6 E	E-W	T	884	332	456	55	E	5	2026	394
t: SH6/Stalker - 128@69.0 - 10167@1.8	SH6 E	E-NW	R	42	4	23	104	F	6	121	24
t: SH6/Stalker - 129@40.0 - 2@13	LSOR	NW-E	L	37	128	299	97	F	6	133	26
t: SH6/Stalker - 129@40.0 - 7@44.8	LSOR	NW-S	T	12	128	299	148	F	6	48	9
t: SH6/Stalker - 129@40.0 - 33@36.2	LSOR	NW-W	R	360	128	299	145	F	6	1637	318
t: SH6/Stalker - 133@3.3 - 2@13	Stalker	S-E	R	11	5	30	783	F	6	254	49
t: SH6/Stalker - 133@3.3 - 10167@1.8	Stalker	S-NW	T	24	5	30	760	F	6	485	94
t: SH6/Stalker - 135@5.7 - 33@36.2	Stalker	S-W	L	328	706	788	747	F	6	7557	1470
t: SH6/Stalker - 137@42.4 - 33@36.2	Stalker BL	S-W	L	3	0	15	1258	F	6	75	15
t: SH6/Stalker		Total		2654	155	788	154	F	6	14127	2749
2: SH6/Howards - 1@2910.5 - 80@71.1	SH6 E	E-W	T	572	778	1039	422	F	6	10358	2015
2: SH6/Howards - 1@2910.5 - 115@26.4	SH6 E	E-S	L	22	778	1039	318	F	6	291	57
2: SH6/Howards - 118@30.7 - 80@71.1	Howard	S-W	L	183	953	1238	1019	F	6	5941	1156
2: SH6/Howards - 118@30.7 - 82@39.2	Howard	S-E	R	37	953	1238	951	F	6	1535	299
2: SH6/Howards - 119@109.8 - 82@39.2	SH6 W	W-E	T	483	0	19	2	A	1	343	67
2: SH6/Howards - 119@109.8 - 115@26.4	SH6 W	W-S	R	113	18	54	89	F	6	285	56
2: SH6/Howards		Total		1409	437	1281	341	F	6	21076	4101
33: SH6 / Clark - 2@62.8 - 83@8.1	SH6 W	W-N	L	65	1	81	12	B	2	60	12
33: SH6 / Clark - 2@62.8 - 121@79.3	SH6 W	W-E	T	558	13	175	13	B	2	634	123
33: SH6 / Clark - 120@10.0 - 83@8.1	SH6 E	E-N	R	23	273	351	127	F	6	114	22
33: SH6 / Clark - 120@10.0 - 128@8.2	SH6 E	E-W	T	729	273	351	126	F	6	4379	852
33: SH6 / Clark - 123@29.1 - 121@79.3	New Road	N-E	L	36	47	136	62	E	5	91	18
33: SH6 / Clark - 123@29.1 - 128@8.2	New Road	N-W	R	198	47	136	167	F	6	1108	216
33: SH6 / Clark		Total		1610	76	351	86	F	6	6392	1244
29: LSOR/Collector - 8@534.6 - 86@2.9	LSOR N	N-E	L	0	3	47					
29: LSOR/Collector - 8@534.6 - 87@18.5	LSOR N	N-S	T	216	5	47	18	B	2	339	66
29: LSOR/Collector - 90@124.6 - 87@18.5	Collector Rd	E-S	L	206	6	48	21	C	3	250	49
29: LSOR/Collector - 90@124.6 - 88@20.7	Collector Rd	E-N	R	0	6	48					
29: LSOR/Collector - 93@343.9 - 88@20.7	LSOR S	S-N	T	292	2	55	5	A	1	261	51
29: LSOR/Collector - 126@26.1 - 86@2.9	LSOR S	S-E	R	63	2	25	20	B	2	79	15
29: LSOR/Collector				776	4	56	14	B	2	918	179

Table 22: 2025 AM Baseline + SLL Development Journey Times

		Av. Travel Time			
AM Peak Hour	Vph	seconds	min:sec	DIST(m)	Average Speed (km/h)
Travel Path					
102: Lower Shotover - SH6 West	169	285.59	4:46	1937	24.4
201: SH6 West - Lower Shotover	232	130.67	2:11	1909	52.6
203: SH6 West - Stalker	34	263.08	4:23	1775	24.3
204: SH6 West - Nerin Sq	81	321.14	5:21	2809	31.5
205: SH6 West - SH6 East	413	165.97	2:46	2419	52.5
302: Stalker - SH6 West	104	1118.25	18:38	1756	5.7
402: Nerin Sq - SH6 West	153	1516.38	25:16	2790	6.6
502: SH6 East - SH6 West	518	706.91	11:47	2422	12.3
Public Transport					
901: Bus Hardware to Arrowtown	4	199.48	3:19	2839	51.2
902: Bus Arrowtown to Hardware	4	717.01	11:57	2838	14.2
903: Bus Hardware to Lake Hayes Estate	3	938.66	15:39	6578	25.2
904: Bus Lake Hayes Estate to Hardware	3	1830.32	30:30	6576	12.9

A unique aspect of micro-simulation models is individual vehicles are released into the network according to stochastic variations in the origin travel demand profile. A congested simulation network can result in traffic being unable to enter the network, which is reported in the outputs. Unrealised travel is referred to as latent or suppressed travel demand.



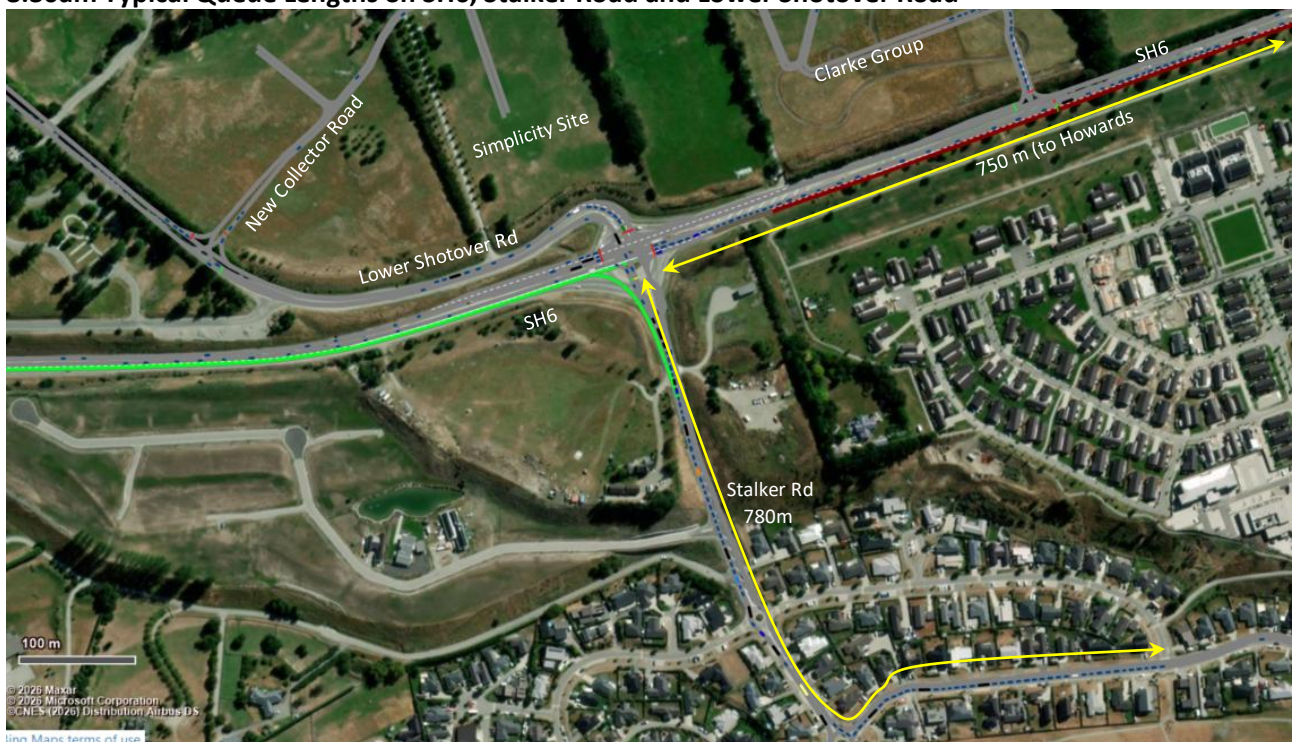
The SLL model run files show between 160 - 180 suppressed vehicle trips remain unable to enter the network at the end of each two-hour AM model run due to traffic congestion. This is concentrated at the Stalker Road zone that is one of three Origin / Destination zones representing Shotover Country in the model.

The image below illustrates the origin zone location with suppressed demand due to queues on Stalker Road.



The following images from the Baseline + SLL Development AM Peak VISSIM model visually illustrate the queue lengths and network performance at approximately the midpoint of the peak hour.

8:30am Typical Queue Lengths on SH6, Stalker Road and Lower Shotover Road



8:30am Westbound SH6 Average Maximum Modelled Queue Length approaching Howards Drive



8:30am Typical Northbound Modelled Queue Length on Howards Drive



Table 23 presents the 2025 Baseline + SLL Development PM peak hour intersection performance results for the four intersections of interest, and Table 24 presents the Journey Times through the network.



Table 23: 2025 PM Baseline + SLL Development Intersection Performance Results

PM Peak Hour											
Intersection	Approach Leg	Direction	Movement	VPH	Av. Q (m)	Av. Max. Q (m)	Av.Delay (s)	LOS	LOS	Emiss CO	Emiss Nox
1: SH6/Stalker - 10@340.4 - 2@1.3	SH6 W	W-E	T	881	27	242	32	C	3	2036	396
1: SH6/Stalker - 10@340.4 - 7@44.8	SH6 W	W-S	R	434	64	654	47	D	4	1025	199
1: SH6/Stalker - 10@340.4 - 10167@1.8	SH6 W	W-NW	L	382	27	242	22	C	3	677	132
1: SH6/Stalker - 128@69.0 - 7@44.8	SH6 E	E-S	L	8	356	453	104	F	6	23	4
1: SH6/Stalker - 128@69.0 - 33@36.2	SH6 E	E-W	T	524	356	453	124	F	6	1918	373
1: SH6/Stalker - 128@69.0 - 10167@1.8	SH6 E	E-NW	R	48	117	195	142	F	6	175	34
1: SH6/Stalker - 129@40.0 - 2@1.3	LSOR	NW-E	L	70	102	286	105	F	6	274	53
1: SH6/Stalker - 129@40.0 - 7@44.8	LSOR	NW-S	T	98	102	286	126	F	6	354	69
1: SH6/Stalker - 129@40.0 - 33@36.2	LSOR	NW-W	R	321	102	286	115	F	6	1220	237
1: SH6/Stalker - 133@3.3 - 2@1.3	Stalker	S-E	R	24	10	48	96	F	6	85	16
1: SH6/Stalker - 133@3.3 - 10167@1.8	Stalker	S-NW	T	42	10	48	94	F	6	134	26
1: SH6/Stalker - 135@5.7 - 33@36.2	Stalker	S-W	L	374	17	123	35	C	3	930	181
1: SH6/Stalker - 137@42.4 - 33@36.2	Stalker BL	S-W	L	4	0	0	210	F	6	20	4
1: SH6/Stalker		Total		3210	108	843	64	E	5	8802	1713
2: SH6/Howards - 1@2910.5 - 80@71.1	SH6 E	E-W	T	399	164	380	144	E	5	2841	553
2: SH6/Howards - 1@2910.5 - 115@26.4	SH6 E	E-S	L	311	164	380	66	D	4	1056	206
2: SH6/Howards - 118@30.7 - 80@71.1	Howard	S-W	L	141	14	54	90	E	5	678	132
2: SH6/Howards - 118@30.7 - 82@39.2	Howard	S-E	R	69	14	54	94	F	6	276	54
2: SH6/Howards - 119@109.8 - 82@39.2	SH6 W	W-E	T	620	3	88	5	A	1	543	106
2: SH6/Howards - 119@103.8 - 115@26.4	SH6 W	W-S	R	260	17	69	39	D	4	421	82
2: SH6/Howards		Total		1801	49	380	61	D	4	6394	1244
33: SH6 / Clark - 2@62.8 - 83@8.1	SH6 W	W-N	L	123	14	125	16	B	2	119	23
33: SH6 / Clark - 2@62.8 - 121@79.3	SH6 W	W-E	T	861	54	220	25	C	3	1239	241
33: SH6 / Clark - 120@10.0 - 83@8.1	SH6 E	E-N	R	47	187	334	151	F	6	249	48
33: SH6 / Clark - 120@10.0 - 128@8.2	SH6 E	E-W	T	494	187	334	211	F	6	3871	753
33: SH6 / Clark - 123@29.1 - 121@79.3	Flints Park	N-E	L	29	10	50	35	C	3	44	9
33: SH6 / Clark - 123@29.1 - 128@8.2	Flints Park	N-W	R	86	10.1	50	161	F	6	439	85
33: SH6 / Clark		Total		1640	66	334	91	F	6	5961	1160
29: LSOR/Collector - 8@534.6 - 86@2.9	LSOR N	N-E	L	1	7	68	6	A	1	1	0
29: LSOR/Collector - 8@534.6 - 87@18.5	LSOR N	N-S	T	342	10	68	19	B	2	551	107
29: LSOR/Collector - 90@124.6 - 87@18.5	Collector	E-S	L	147	5	43	22	C	3	184	36
29: LSOR/Collector - 90@124.6 - 88@20.7	Collector	E-N	R	1	5	43	43	D	4	6	1
29: LSOR/Collector - 93@349.9 - 88@20.7	LSOR S	S-N	T	241	1	34	4	A	1	207	40
29: LSOR/Collector - 126@26.1 - 86@2.9	LSOR S	S-E	R	236	8	60	23	C	3	316	62
29: LSOR/Collector				970	6	69	17	B	2	1243	242

Table 24: 2025 PM Baseline + SLL Development Journey Times

PM Peak Hour		Av. Travel Time			
Travel Path	Vph	seconds	min:sec	DIST(m)	Average Speed (km/h)
102: Lower Shotover - SH6 West	188	255.7	4:16	1937	27.3
201: SH6 West - Lower Shotover	165	144.8	2:25	1909	47.5
203: SH6 West - Stalker	158	195.0	3:15	1775	32.8
204: SH6 West - Nerin Sq	211	297.3	4:57	2805	34.0
205: SH6 West - SH6 East	577	213.8	3:34	2483	41.8
302: Stalker - SH6 West	170	162.0	2:42	1756	39.0
402: Nerin Sq - SH6 West	131	574.2	9:34	2801	17.6
502: SH6 East - SH6 West	533	503.6	8:24	2860	20.4
Public Transport					
901: Bus Hardware to Arrowtown	4	283.2	4:43	2836	36.1
902: Bus Arrowtown to Hardware	4	623.5	10:24	2838	16.4
903: Bus Hardware to Lake Hayes Estate	4	844.2	14:04	6575	28.0
904: Bus Lake Hayes Estate to Hardware	4	827.4	13:47	6576	28.6

There is negligible suppressed travel demand at the end of each two-hour PM model run under this 20% / 15% PT mode-share scenario for SLL Development and existing low density residential dwellings respectively.

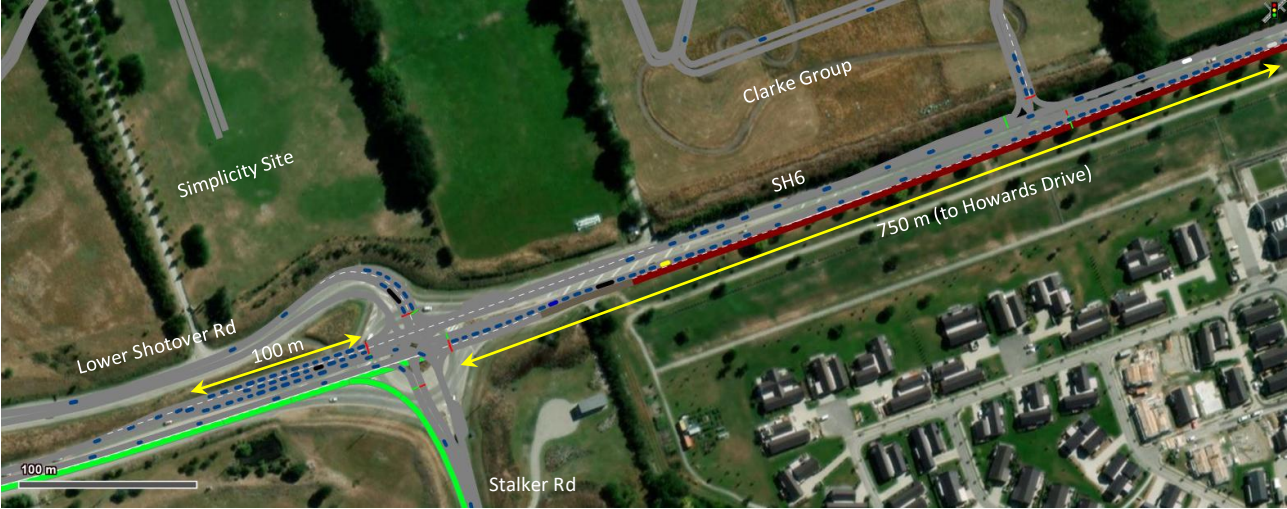
The following images from the Baseline + SLL Development PM Peak VISSIM model visually illustrate the queue lengths and network performance at approximately the mid-point of the peak hour.



5:30pm Typical Network Queues



5:30pm SH6 / Stalker Road / Lower Shotover Road Signal Intersection



5:30pm Lower Shotover Road and Collector Road Intersection Queues



5:30pm Maximum Westbound SH6 Queue at Howards Drive Signal Intersection.



4. Summary of Transport Model Key Findings

The transport modelling demonstrates the following representative network conditions are expected following completion of the proposed 1085 dwelling Simplicity Living development at Te Putahi Ladies Mile with the associated proposed upgrade of SH6 / Stalker Road / Lower Shotover Road roundabout to a signal intersection and bus lane on SH6 (westbound from Stalker Road to Shotover River Bridge) and Stalker Road (northbound):

AM Peak Baseline + SLL Development

- The westbound SH6 traffic queue at the Howards Drive intersection extends approximately 1 km long and averages approximately 780 m over the peak hour.
- The average journey time for westbound traffic on SH6 to travel 2.4 km is 11:47 min:sec at an average speed of 12.3 km/h.
- The westbound SH6 queue length on approach to Stalker Road intersection averages 332 m. However, the maximum queue typically extends back through the SH6 / Clarke intersection and SH6 / Howards Drive intersection.
- The average queue length on Stalker Road is 706 m, and the average maximum is 788 m, resulting in an average travel time of 18:38 min:sec to travel 1.75 km (average speed = 5.7 km/h).
- The average queue length on Lower Shotover Road is 128 m and the average maximum queue is 299 m, which is about 80m from reaching the Collector Road intersection.
- Howards Drive traffic experiences an average queue length of 953 m, and an average maximum queue of 1238 m, resulting in an average travel time of 25:16 min:sec to travel approximately 2.8 km (average speed = 6.6 km/h).
- The average westbound journey time for the #5 Lake Hayes to Frankton bus service is 30:30 min:sec, at an average speed of 12.9 km/h. This is effectively twice as long as the eastbound journey time recorded for the #5 route (15:39 min:sec at an average speed of 25.2 km/h).
- The westbound journey time for the #2 Frankton to Arrowtown bus service through Ladies Mile is 11:57 min:sec to travel 2.8 km, resulting in an average speed of 14.2 km/h.



- The average eastbound journey time through Ladies Mile for the #2 Frankton to Arrowtown bus service is 3:19 min:sec to travel 2.8 km, resulting in an average speed of 51.2 km/h.

PM Peak Baseline + SLL Development

- The westbound SH6 average queue length from the Stalker Road intersection is 356 m long while the maximum queue of 453 m extends upstream through the SH6 / Clarke Development Access Road intersection.
- The average eastbound SH6 traffic queue at the Stalker Road intersection is just 64 m long, but peaks up to an average maximum of 654 m.
- The average journey time for eastbound SH6 traffic through Ladies Mile is 3:34 min:sec to travel 2.48 km, at an average speed of 41.8 km/h. The speed limit on SH6 is set at 60 km/h in the model.
- The average maximum queue for SH6 westbound at Howards Drive intersection is 380 m. However, one of the five model runs produced a maximum queue length of 1020 m, indicating the effect that stochastic traffic arrival profiles can have when a network is operating at or near capacity.
- The Stalker Road average queue length is just 17 m with an average maximum queue of 123 m.
- The average queue length on Lower Shotover Road approach to SH6 is 102 m, and the average maximum queue extends 286 m, which is about 100m from reaching the Collector Road intersection.
- Howards Drive traffic queues and delays are minor in the PM peak.
- The average westbound journey time for the #5 Lake Hayes to Frankton bus service is 13:47 min:sec, at an average speed of 28.6 km/h, and is similar for the eastbound journey time.
- The average eastbound journey time through Ladies Mile for the #2 Frankton to Arrowtown bus service is 4:43 min:sec to travel 2.8 km, resulting in an average speed of 36.1 km/h.
- The average westbound journey time through Ladies Mile for the #2 Arrowtown to Frankton bus service is more than double the eastbound journey time (10:24 min:sec) and half the speed (16.4 km/h) due to traffic queues in the westbound direction and the modelling basis that there is no westbound bus lane through the Howards Drive and Clarke Access Road intersections (NZTA is uncertain that this will be provided in the upgrade works by Clarke Group and NZTA). It is clear from the modelling that extending the westbound bus lane through these intersections will significantly reduce the westbound #2 bus route journey time through Ladies Mile.

Yours sincerely

Bloxam Burnett & Olliver



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Appendix A

2025 Traffic Count Data (SH6 and QLDC Roads)



QLDC counts by day binned by hour_singlesheet_direction_split

Globals

Report Id	TRAFFIC_SS_Howards Drive 82m 2025-09-13T00_00_00 289
Descriptor	QLDC counts by day binned by hour_singlesheet_direction_split
Created by	MetroCount Traffic Executive
Creation Time (UTC)	2025-12-10T01:22:26
Legal	Copyright (c)1997 - 2019 MetroCount
Graphic	
Language	English
Country	New Zealand
Time	UTC + 780 min
Create Version	5.0.8.0
Metric	Metric
Speed Unit	km/h
Length Unit	metre
Mass Unit	tonne

Dataset

Site Name	Howards Drive 82m
Site Attribute	E1234567 N1234567
File Name	C:\Users\saraht\Downloads\Howards Drive 82m 0 2025-09-22 1041 (1).ec0
File Type	Plus
Algorithm	Factory default axle
Description	1826 Howards Drive 82m
Lane	0
Direction	5
Direction Text	5 - South bound AJB, North bound BJA.
Layout Text	Axle sensors - Paired (Class/Speed/Count)
Setup Time	2025-09-12T12:29:49
Start Time	2025-09-12T12:29:49
Finish Time	2025-09-22T10:41:12
Operator	DNZ
Configuration	80 00 0f a8 a8 00 00 00 00 00

Profile

Name	z_RAMM_Oct2011-NZTA_traffic_ss
Title	MetroCount Traffic Executive
Graphic Logo	
Header	
Footer	
Percentile 1	85
Percentile 2	95
Pace	20
Filter Start	2025-09-13T00:00:00
Filter End	2025-09-22T00:00:00
Class Scheme	NZTA2011
F	Cls(1-14) Dir(NESW) Sp(5,160) Headway(J0) Span(0 - 100) Lane(0-16)
Low Speed	5

High Speed	160
Posted Limit	40
Speed Limits	40 40 40 40 40 40 40 40 40
Separation	0.000
Separation Type	Headway
Direction	North East South West
Encoded Direction	15

Column	
Time [--	24-hour time (0000 - 2359)
Cd	Compass direction
Dir	Direction code
Total	Number in time step
Cls 1	Class totals
Cls 2	Class totals
Cls 3	Class totals
Cls 4	Class totals
Cls 5	Class totals
Cls 6	Class totals
Cls 7	Class totals
Cls 8	Class totals
Cls 9	Class totals
Cls 10	Class totals
Cls 11	Class totals
Cls 12	Class totals
Cls 13	Class totals
Cls 14	Class totals
Mean	Average speed
Vpp 85	Percentile speed
V50	50th percentile speed (Median)

Monday, 15 September 2025

Time [--	Cd	Dir	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Cls 11	Cls 12	Cls 13	Cls 14	Mean	Vpp 85	V50						
0000	N	P	7	0	6	0	1	0	0	0	0	0	0	0	0	0	0	0	46.6	-	-					
0000	S	S	19	0	18	0	1	0	0	0	0	0	0	0	0	0	0	0	48.7	54.7	48.8					
0100	N	P	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	39.4	-	-					
0100	S	S	9	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	49.3	-	-					
0200	N	P	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	50.1	-	-					
0200	S	S	7	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	47	-	-					
0300	N	P	12	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	46.7	59.6	48.1					
0300	S	S	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	45.7	-	-					
0400	N	P	23	0	20	0	3	0	0	0	0	0	0	0	0	0	0	0	49.9	62.6	49					
0400	S	S	7	0	5	0	2	0	0	0	0	0	0	0	0	0	0	0	45.2	-	-					
0500	N	P	68	0	64	0	4	0	0	0	0	0	0	0	0	0	0	0	50	57.8	49.8					
0500	S	S	11	0	8	0	3	0	0	0	0	0	0	0	0	0	0	0	48	54.3	46.3					

				1	2	3	4	5	6	7	8	9	10	11	12	13	14		85								
0000	N	P	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	44.4	-	-							
0000	S	S	15	0	15	0	0	0	0	0	0	0	0	0	0	0	0	48.9	53.9	49.3							
0100	N	P	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	35.3	-	-							
0100	S	S	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	40.8	-	-							
0200	N	P	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	39.5	-	-							
0200	S	S	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	47.9	-	-							
0300	N	P	8	0	8	0	0	0	0	0	0	0	0	0	0	0	0	50.4	-	-							
0300	S	S	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	40.8	-	-							
0400	N	P	25	0	25	0	0	0	0	0	0	0	0	0	0	0	0	50.9	60.2	50.9							
0400	S	S	5	0	4	0	1	0	0	0	0	0	0	0	0	0	0	45.6	-	-							
0500	N	P	67	0	62	0	4	1	0	0	0	0	0	0	0	0	0	49.2	57.9	49.3							
0500	S	S	19	0	14	0	4	1	0	0	0	0	0	0	0	0	0	47.6	55.3	48.8							
0600	N	P	217	0	203	2	9	3	0	0	0	0	0	0	0	0	0	47.2	53.9	46.8							
0600	S	S	68	0	54	0	14	0	0	0	0	0	0	0	0	0	0	47.6	53	47.9							
0700	N	P	501	0	452	2	25	14	1	0	0	1	1	0	0	0	5	36.2	47.7	39.8							
0700	S	S	173	0	154	1	13	5	0	0	0	0	0	0	0	0	0	46.5	53.1	46.1							
0800	N	P	517	1	460	2	23	22	1	1	3	0	1	0	0	0	3	23.1	40.7	19.8							
0800	S	S	176	0	157	3	11	4	1	0	0	0	0	0	0	0	0	43.3	49.5	43							
0900	N	P	306	0	286	3	9	5	3	0	0	0	0	0	0	0	0	42.8	49.9	44							
0900	S	S	193	0	176	2	13	2	0	0	0	0	0	0	0	0	0	44.8	51.1	44.8							
1000	N	P	263	0	253	1	8	0	1	0	0	0	0	0	0	0	0	43.4	50.2	44.1							
1000	S	S	186	0	167	1	17	0	0	1	0	0	0	0	0	0	0	46.6	54.2	46.6							
1100	N	P	212	0	207	1	3	1	0	0	0	0	0	0	0	0	0	45.2	50.4	45.5							
1100	S	S	216	0	193	1	20	2	0	0	0	0	0	0	0	0	0	45.5	52.8	45.4							
1200	N	P	168	0	159	1	8	0	0	0	0	0	0	0	0	0	0	46.4	53	45.9							
1200	S	S	238	0	218	0	20	0	0	0	0	0	0	0	0	0	0	45.7	52.6	45.9							
1300	N	P	207	1	198	1	7	0	0	0	0	0	0	0	0	0	0	45.3	51.6	45.7							
1300	S	S	219	0	198	1	20	0	0	0	0	0	0	0	0	0	0	45.9	52.4	46.1							
1400	N	P	198	0	189	1	8	0	0	0	0	0	0	0	0	0	0	45.4	52.7	45.4							
1400	S	S	220	0	196	2	19	0	1	1	1	0	0	0	0	0	0	45.3	52.5	45.8							
1500	N	P	212	0	199	4	6	1	1	1	0	0	0	0	0	0	0	44.8	52.4	45.8							
1500	S	S	311	1	279	4	27	0	0	0	0	0	0	0	0	0	0	47	54.1	47.5							
1600	N	P	238	0	228	4	4	2	0	0	0	0	0	0	0	0	0	44.6	51.3	45							
1600	S	S	402	1	352	3	45	1	0	0	0	0	0	0	0	0	0	46.1	52.4	46.4							
1700	N	P	213	0	208	1	4	0	0	0	0	0	0	0	0	0	0	43.8	51.1	45.4							
1700	S	S	511	3	461	1	43	1	0	1	0	0	0	0	0	0	1	46.4	52.6	47							
1800	N	P	168	1	162	0	2	3	0	0	0	0	0	0	0	0	0	45.4	52.7	45.5							
1800	S	S	327	2	293	3	25	3	0	0	0	0	0	0	0	0	1	47.1	53.1	47							
1900	N	P	128	1	124	2	0	0	0	0	0	0	0	0	0	0	1	44.5	51.6	44.7							
1900	S	S	224	0	208	0	12	4	0	0	0	0	0	0	0	0	0	46.5	52.8	46.5							
2000	N	P	74	1	73	0	0	0	0	0	0	0	0	0	0	0	0	46.1	53.8	46.1							
2000	S	S	151	0	145	0	5	1	0	0	0	0	0	0	0	0	0	48	52.6	47.7							
2100	N	P	71	0	68	2	0	1	0	0	0	0	0	0	0	0	0	46.5	53	46.6							
2100	S	S	101	1	95	0	4	1	0	0	0	0	0	0	0	0	0	45.9	51.1	45.9							
2200	N	P	31	0	30	0	0	1	0	0	0	0	0	0	0	0	0	45.1	54.6	43.9							
2200	S	S	63	1	61	1	0	0	0	0	0	0	0	0	0	0	0	47.4	53	48.1							
2300	N	P	19	0	19	0	0	0	0	0	0	0	0	0	0	0	0	44	50.9	43.6							
2300	S	S	40	0	38	0	2	0	0	0	0	0	0	0	0	0	0	47.7	54.3	47.1							
07-19	N	P	3203	3	3001	21	107	48	7	2	3	1	2	0	0	0	8	39.8	50	43.2							
07-19	S	S	3172	7	2844	22	273	18	2	3	1	0	0	0	0	0	2	46	52.6	46.3							
06-22	N	P	3693	5	3469	27	116	52	7	2	3	1	2	0	0	0	9	40.6	50.6	43.7							
06-22	S	S	3716	8	3346	22	308	24	2	3	1	0	0	0	0	0	2	46.1	52.6	46.4							
06-00	N	P	3743	5	3518	27	116	53	7	2	3	1	2	0	0	0	9	40.7	50.6	43.7							
06-00	S	S	3819	9	3445	23	310	24	2	3	1	0	0	0	0	0	2	46.2	52.6	46.4							

00-00	N	P	3851	5	3621	27	120	54	7	2	3	1	2	0	0	0	9	40.9	50.9	43.7						
00-00	S	S	3866	9	3486	23	315	25	2	3	1	0	0	0	0	0	2	46.2	52.6	46.4						

Vehicles = 7717

Posted speed limit = 40 km/h, Exceeding = 5841 (75.69%), Mean Exceeding = 47.86 km/h

Maximum = 98.5 km/h, Minimum = 5.1 km/h, Mean = 43.6 km/h

85% Speed = 51.84 km/h, 95% Speed = 56.16 km/h, Median = 45.18 km/h

20 km/h Pace = 36 - 56, Number in Pace = 6215 (80.54%)

Variance = 101.80, Standard Deviation = 10.09 km/h

Wednesday, 17 September 2025

Time [--]	Cd	Dir	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Cls 11	Cls 12	Cls 13	Cls 14	Mean	Vpp 85	V50						
0000	N	P	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	46.1	-	-					
0000	S	S	8	0	6	0	2	0	0	0	0	0	0	0	0	0	0	0	44	-	-					
0100	N	P	6	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	43.4	-	-					
0100	S	S	7	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	44.3	-	-					
0200	N	P	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	75.8	-	-					
0200	S	S	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	41.6	-	-					
0300	N	P	7	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	49.8	-	-					
0300	S	S	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	49.1	-	-					
0400	N	P	27	0	26	0	1	0	0	0	0	0	0	0	0	0	0	0	48.6	55.3	47.9					
0400	S	S	5	0	4	0	1	0	0	0	0	0	0	0	0	0	0	0	50.7	-	-					
0500	N	P	60	0	57	0	3	0	0	0	0	0	0	0	0	0	0	0	48.6	54.8	48.9					
0500	S	S	19	0	15	0	4	0	0	0	0	0	0	0	0	0	0	0	45.3	51.1	45.2					
0600	N	P	180	0	165	0	13	1	1	0	0	0	0	0	0	0	0	0	47.8	54.9	48.6					
0600	S	S	66	0	55	0	10	1	0	0	0	0	0	0	0	0	0	0	44.9	53.4	45.2					
0700	N	P	432	1	393	1	17	17	0	0	0	2	0	0	0	0	0	1	38.6	49	41.2					
0700	S	S	132	0	118	0	11	3	0	0	0	0	0	0	0	0	0	0	46.9	52.4	47.7					
0800	N	P	459	1	430	0	13	8	0	0	1	0	1	0	0	0	0	5	18.8	37.4	12.6					
0800	S	S	175	0	157	3	13	1	0	1	0	0	0	0	0	0	0	0	45.3	50	45.2					
0900	N	P	287	0	260	0	11	14	1	0	0	0	0	0	0	0	0	1	41.4	49.7	43.4					
0900	S	S	248	0	213	0	31	1	1	0	0	1	0	0	0	0	0	1	46.8	53.4	47.3					
1000	N	P	272	0	251	0	10	9	0	0	0	0	0	0	0	0	0	2	44.9	51.8	45.4					
1000	S	S	201	0	183	1	14	2	1	0	0	0	0	0	0	0	0	0	48.7	55.3	48.8					
1100	N	P	247	0	223	1	9	12	0	0	0	0	0	0	0	0	0	2	46.1	52.2	46.4					
1100	S	S	259	0	226	1	20	9	1	0	0	0	0	0	0	0	0	2	47.4	54	47.5					
1200	N	P	241	0	229	0	5	5	1	0	0	0	0	0	0	0	0	1	46.6	52.7	47.5					
1200	S	S	262	0	233	0	19	9	0	1	0	0	0	0	0	0	0	0	46.2	52.8	46.4					
1300	N	P	236	1	226	1	2	5	0	0	0	1	0	0	0	0	0	0	46	51.9	46.6					
1300	S	S	274	1	245	0	21	5	1	0	0	0	0	0	0	0	0	1	46	52.6	46.1					
1400	N	P	264	0	247	1	8	7	0	0	0	0	0	0	0	0	0	1	43.2	50	43.4					
1400	S	S	256	0	226	1	21	4	0	1	1	0	0	0	0	0	0	2	45.6	51.4	46					
1500	N	P	245	0	233	1	2	7	1	1	0	0	0	0	0	0	0	0	43.4	49.1	44.6					
1500	S	S	366	0	331	0	25	8	0	0	1	0	0	0	0	0	0	1	45.4	51.3	45.6					
1600	N	P	239	1	224	2	2	6	2	0	0	0	0	0	0	0	0	2	45.8	50.9	45.9					
1600	S	S	382	1	351	3	12	10	0	1	0	0	0	0	0	0	0	4	45.6	51.8	46					
1700	N	P	229	1	220	1	2	4	0	0	1	0	0	0	0	0	0	0	44	50.2	44.5					
1700	S	S	453	0	406	3	24	14	3	0	0	0	0	0	0	0	0	3	45.2	50.4	45.5					
1800	N	P	202	0	197	0	0	4	0	0	0	0	0	0	0	0	0	1	46.7	52.4	46.4					
1800	S	S	328	1	302	1	13	3	0	0	0	0	0	0	0	0	0	8	45.4	51.1	45.5					
1900	N	P	135	0	131	0	0	2	1	1	0	0	0	0	0	0	0	0	44.9	50.5	45.2					
1900	S	S	212	0	198	0	4	6	0	1	0	0	0	0	0	0	0	3	45.6	52.6	45.7					
2000	N	P	109	0	104	0	4	0	0	1	0	0	0	0	0	0	0	0	46.9	53.6	46.6					

2000	S	S	148	0	142	0	3	1	0	0	0	0	0	0	0	0	2	45.7	51.3	46.3							
2100	N	P	62	0	61	0	0	1	0	0	0	0	0	0	0	0	0	45.7	52	45.7							
2100	S	S	123	0	119	1	2	1	0	0	0	0	0	0	0	0	0	48.1	53	48.1							
2200	N	P	32	0	30	0	2	0	0	0	0	0	0	0	0	0	0	42.8	49.7	43.9							
2200	S	S	90	1	88	0	0	1	0	0	0	0	0	0	0	0	0	45.6	52.2	47.2							
2300	N	P	22	0	22	0	0	0	0	0	0	0	0	0	0	0	0	44.8	53.6	44.9							
2300	S	S	34	1	32	0	1	0	0	0	0	0	0	0	0	0	0	46.9	56.2	44.2							
07-19	N	P	3353	5	3133	8	81	98	5	1	2	3	1	0	0	0	16	40.4	50.4	43.9							
07-19	S	S	3336	3	2991	13	224	69	7	4	2	1	0	0	0	0	22	46	52.2	46.3							
06-22	N	P	3839	5	3594	8	98	102	7	3	2	3	1	0	0	0	16	41.1	50.8	44.3							
06-22	S	S	3885	3	3505	14	243	78	7	5	2	1	0	0	0	0	27	46	52.2	46.3							
06-00	N	P	3893	5	3646	8	100	102	7	3	2	3	1	0	0	0	16	41.2	50.8	44.3							
06-00	S	S	4009	5	3625	14	244	79	7	5	2	1	0	0	0	0	27	46	52.2	46.3							
00-00	N	P	3997	5	3746	8	104	102	7	3	2	3	1	0	0	0	16	41.4	50.8	44.5							
00-00	S	S	4052	5	3661	14	251	79	7	5	2	1	0	0	0	0	27	46	52.2	46.3							

Vehicles = 8049

Posted speed limit = 40 km/h, Exceeding = 6220 (77.28%), Mean Exceeding = 47.71 km/h

Maximum = 75.8 km/h, Minimum = 5.0 km/h, Mean = 43.7 km/h

85% Speed = 51.66 km/h, 95% Speed = 55.62 km/h, Median = 45.36 km/h

20 km/h Pace = 35 - 55, Number in Pace = 6646 (82.57%)

Variance = 98.44, Standard Deviation = 9.92 km/h

Thursday, 18 September 2025

Time [--]	Cd	Dir	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Cls 11	Cls 12	Cls 13	Cls 14	Mean	Vpp 85	V50							
0000	N	P	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	51.5	-	-						
0000	S	S	12	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	48.1	54.6	50.1						
0100	N	P	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	41.5	-	-						
0100	S	S	4	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	45.5	-	-						
0200	N	P	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	43.6	-	-						
0200	S	S	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	47.3	-	-						
0300	N	P	9	0	8	0	1	0	0	0	0	0	0	0	0	0	0	0	47.3	-	-						
0300	S	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-						
0400	N	P	20	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	48.3	58.6	47.9						
0400	S	S	8	0	7	0	1	0	0	0	0	0	0	0	0	0	0	0	47.3	-	-						
0500	N	P	66	0	63	0	3	0	0	0	0	0	0	0	0	0	0	0	46.8	53.1	46.5						
0500	S	S	21	2	13	0	5	1	0	0	0	0	0	0	0	0	0	0	40.6	52.7	39.2						
0600	N	P	202	1	183	2	14	1	0	1	0	0	0	0	0	0	0	0	48.5	55	48.8						
0600	S	S	58	0	46	0	11	1	0	0	0	0	0	0	0	0	0	0	46.6	54.4	47.1						
0700	N	P	500	1	442	1	23	20	2	1	1	0	2	0	0	0	0	7	33.8	46.4	36.5						
0700	S	S	190	0	175	1	13	0	1	0	0	0	0	0	0	0	0	0	46.9	52.6	47.5						
0800	N	P	527	1	489	3	10	12	1	0	1	1	0	0	0	0	1	8	20.4	39.2	15.3						
0800	S	S	220	0	208	2	6	2	1	0	0	0	0	0	0	0	0	1	45.4	51.1	45.8						
0900	N	P	292	2	264	2	8	13	0	0	1	0	0	0	0	0	2	43.5	50.6	44.5							
0900	S	S	219	1	194	0	13	10	0	0	0	0	0	0	0	0	0	1	46.1	53.5	46.4						
1000	N	P	276	0	262	2	5	5	1	0	0	0	0	0	0	0	0	1	41.8	48.7	42.8						
1000	S	S	196	0	164	3	25	2	0	1	0	0	0	0	0	0	0	1	42.4	49.7	43.6						
1100	N	P	235	1	221	3	8	1	0	0	0	0	0	0	0	0	0	1	42.6	50.7	43.2						
1100	S	S	201	0	172	2	24	2	0	1	0	0	0	0	0	0	0	0	43.5	50.6	43.6						
1200	N	P	192	0	175	3	10	2	1	0	0	0	0	0	0	0	0	1	43.8	52	45.1						
1200	S	S	199	0	173	4	21	1	0	0	0	0	0	0	0	0	0	0	45.2	52.7	45						
1300	N	P	218	1	203	2	10	2	0	0	0	0	0	0	0	0	0	0	43.4	50.8	43.8						

1300	S	S	235	1	207	2	21	3	0	1	0	0	0	0	0	0	0	45.3	52.1	44.8							
1400	N	P	227	0	219	3	3	2	0	0	0	0	0	0	0	0	0	43.8	50.9	43.7							
1400	S	S	225	1	199	2	19	4	0	0	0	0	0	0	0	0	0	45.7	52.4	45.7							
1500	N	P	231	0	217	3	9	2	0	0	0	0	0	0	0	0	0	43.9	52.4	43.7							
1500	S	S	374	0	337	3	31	3	0	0	0	0	0	0	0	0	0	45.5	53.2	45.2							
1600	N	P	251	0	241	1	7	0	1	1	0	0	0	0	0	0	0	43.5	51.1	43.6							
1600	S	S	433	0	386	2	38	4	0	1	0	0	0	0	0	0	0	2	46.3	52.2	46.4						
1700	N	P	213	0	202	2	2	3	1	3	0	0	0	0	0	0	0	44.6	51.1	45.5							
1700	S	S	450	0	398	3	26	14	1	1	0	0	0	0	0	0	0	7	46.1	51.9	46.5						
1800	N	P	223	0	215	1	5	1	0	0	0	0	0	0	0	0	0	1	45.6	51.7	46.3						
1800	S	S	298	0	273	0	15	5	1	0	1	0	0	0	0	0	0	3	46.8	51.7	46.6						
1900	N	P	135	0	133	0	1	1	0	0	0	0	0	0	0	0	0	0	45.5	50.7	45.9						
1900	S	S	220	1	203	2	7	5	1	0	0	0	0	0	0	0	0	1	46.3	51.8	46.8						
2000	N	P	83	0	82	0	1	0	0	0	0	0	0	0	0	0	0	0	44.3	51	43.7						
2000	S	S	168	1	157	0	6	1	0	0	0	0	0	0	0	0	0	3	45.2	50.6	44.9						
2100	N	P	68	0	68	0	0	0	0	0	0	0	0	0	0	0	0	0	44.5	50	44.8						
2100	S	S	85	0	81	1	3	0	0	0	0	0	0	0	0	0	0	0	47.1	53.7	47.3						
2200	N	P	31	0	27	1	3	0	0	0	0	0	0	0	0	0	0	0	43.7	48.1	45.4						
2200	S	S	95	1	88	0	4	2	0	0	0	0	0	0	0	0	0	0	46.8	53.1	47.2						
2300	N	P	14	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	45	53.7	46.3						
2300	S	S	39	0	37	0	2	0	0	0	0	0	0	0	0	0	0	0	45.6	52.4	45.7						
07-19	N	P	3385	6	3150	26	100	63	7	5	2	2	2	0	0	1	21	38.5	49.9	42.1							
07-19	S	S	3240	3	2886	24	252	50	4	5	1	0	0	0	0	0	15	45.6	52	45.9							
06-22	N	P	3873	7	3616	28	116	65	7	6	2	2	2	0	0	1	21	39.5	50.4	42.8							
06-22	S	S	3771	5	3373	27	279	57	5	5	1	0	0	0	0	0	19	45.7	52	45.9							
06-00	N	P	3918	7	3657	29	119	65	7	6	2	2	2	0	0	1	21	39.6	50.4	42.8							
06-00	S	S	3905	6	3498	27	285	59	5	5	1	0	0	0	0	0	19	45.7	52	45.9							
00-00	N	P	4022	7	3757	29	123	65	7	6	2	2	2	0	0	1	21	39.8	50.4	43							
00-00	S	S	3951	8	3534	27	292	60	5	5	1	0	0	0	0	0	19	45.7	52	45.9							

Vehicles = 7973

Posted speed limit = 40 km/h, Exceeding = 5767 (72.33%), Mean Exceeding = 47.59 km/h

Maximum = 80.2 km/h, Minimum = 5.0 km/h, Mean = 42.7 km/h

85% Speed = 51.30 km/h, 95% Speed = 55.44 km/h, Median = 44.64 km/h

20 km/h Pace = 35 - 55, Number in Pace = 6336 (79.47%)

Variance = 108.53, Standard Deviation = 10.42 km/h

Friday, 19 September 2025

Time [--]	Cd	Dir	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Cls 11	Cls 12	Cls 13	Cls 14	Mean	Vpp 85	V50							
0000	N	P	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	43.4	-	-							
0000	S	S	17	0	17	0	0	0	0	0	0	0	0	0	0	0	0	48.6	55.2	48.2							
0100	N	P	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	49.9	-	-							
0100	S	S	8	0	8	0	0	0	0	0	0	0	0	0	0	0	0	48.2	-	-							
0200	N	P	8	0	8	0	0	0	0	0	0	0	0	0	0	0	0	44.9	-	-							
0200	S	S	10	0	10	0	0	0	0	0	0	0	0	0	0	0	0	44.5	-	-							
0300	N	P	7	0	7	0	0	0	0	0	0	0	0	0	0	0	0	46.3	-	-							
0300	S	S	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	48.3	-	-							
0400	N	P	18	0	17	0	0	1	0	0	0	0	0	0	0	0	0	50.3	58.6	50.1							
0400	S	S	5	0	4	0	1	0	0	0	0	0	0	0	0	0	0	44.8	-	-							
0500	N	P	56	0	53	0	3	0	0	0	0	0	0	0	0	0	0	48.1	56.7	48							
0500	S	S	16	0	11	0	5	0	0	0	0	0	0	0	0	0	0	40.8	52.3	43							
0600	N	P	183	1	173	1	8	0	0	0	0	0	0	0	0	0	0	47	54.5	47.7							

0600	S	S	42	0	34	0	8	0	0	0	0	0	0	0	0	0	0	47.5	54.8	47.6
0700	N	P	454	3	416	5	18	10	0	0	1	1	0	0	0	0	0	36.7	49.7	41.8
0700	S	S	162	0	147	0	15	0	0	0	0	0	0	0	0	0	0	46.1	52	46.7
0800	N	P	534	4	482	6	6	22	1	0	5	0	0	0	0	0	8	34.6	46.6	37.4
0800	S	S	264	0	249	2	9	2	1	0	0	0	0	0	0	0	1	45.8	51.7	47.5
0900	N	P	281	0	255	0	6	18	1	0	0	0	0	0	0	0	1	42.8	50.3	43.4
0900	S	S	220	0	200	0	14	4	2	0	0	0	0	0	0	0	0	48.1	54.2	47.4
1000	N	P	263	1	245	2	5	8	1	0	0	0	0	0	0	0	1	43	51.1	43.6
1000	S	S	207	1	177	2	23	3	1	0	0	0	0	0	0	0	0	46.1	52.5	46.3
1100	N	P	239	0	230	3	6	0	0	0	0	0	0	0	0	0	0	43.2	50.6	43.9
1100	S	S	247	0	208	3	35	0	1	0	0	0	0	0	0	0	0	46.1	53.8	46.3
1200	N	P	241	1	225	2	7	4	1	0	0	0	0	0	0	0	1	43.6	50.7	44.3
1200	S	S	227	1	205	1	16	2	1	0	0	1	0	0	0	0	0	46	53.6	46.3
1300	N	P	221	4	200	2	9	3	1	2	0	0	0	0	0	0	0	44.5	52.2	44.8
1300	S	S	241	1	214	2	20	3	1	0	0	0	0	0	0	0	0	46.4	53.6	46.1
1400	N	P	232	0	215	4	7	2	4	0	0	0	0	0	0	0	0	43.9	50.6	44.6
1400	S	S	258	1	237	1	15	2	1	1	0	0	0	0	0	0	0	46.3	52.6	46.6
1500	N	P	248	1	232	2	8	2	0	3	0	0	0	0	0	0	0	42.8	50	43.2
1500	S	S	367	1	313	6	43	3	0	0	0	0	0	0	0	0	1	46.4	52.6	46.3
1600	N	P	253	2	240	1	6	2	1	1	0	0	0	0	0	0	0	42	50.8	43.2
1600	S	S	435	2	384	3	41	3	1	0	1	0	0	0	0	0	0	44.2	50.7	44.3
1700	N	P	242	0	227	4	4	4	0	1	0	0	0	0	0	0	2	43.8	50.6	44.5
1700	S	S	395	2	353	2	26	10	0	0	0	0	0	0	0	0	2	46.2	52.7	46.4
1800	N	P	194	0	183	2	5	3	0	0	0	0	0	0	0	0	1	46	51.8	46.6
1800	S	S	310	1	289	0	15	4	0	0	0	0	0	0	0	0	1	47.1	52.9	47
1900	N	P	157	0	149	0	2	2	2	0	0	0	0	0	0	0	2	43.3	50.6	43.9
1900	S	S	226	2	211	0	9	3	0	0	0	0	0	0	0	0	1	45.3	51.6	45.7
2000	N	P	95	2	92	0	1	0	0	0	0	0	0	0	0	0	0	45.5	51.3	44.8
2000	S	S	176	2	169	0	4	1	0	0	0	0	0	0	0	0	0	47.3	51.4	47.6
2100	N	P	79	0	78	0	0	1	0	0	0	0	0	0	0	0	0	43.3	51.7	43.9
2100	S	S	128	1	122	0	2	2	0	0	1	0	0	0	0	0	0	47.7	54.2	47.5
2200	N	P	68	0	64	0	2	2	0	0	0	0	0	0	0	0	0	44.3	52.4	43.6
2200	S	S	125	1	119	0	3	2	0	0	0	0	0	0	0	0	0	47.6	53.1	47.7
2300	N	P	28	0	27	0	1	0	0	0	0	0	0	0	0	0	0	46.2	56	48.3
2300	S	S	45	0	44	0	1	0	0	0	0	0	0	0	0	0	0	46.7	54.6	45.9
07-19	N	P	3402	16	3150	33	87	78	10	7	6	1	0	0	0	0	14	41.2	50.4	43
07-19	S	S	3333	10	2976	22	272	36	9	1	1	1	0	0	0	0	5	46.1	52.6	46.3
06-22	N	P	3916	19	3642	34	98	81	12	7	6	1	0	0	0	0	16	41.7	50.6	43.4
06-22	S	S	3905	15	3512	22	295	42	9	1	2	1	0	0	0	0	6	46.2	52.6	46.4
06-00	N	P	4012	19	3733	34	101	83	12	7	6	1	0	0	0	0	16	41.8	50.6	43.4
06-00	S	S	4075	16	3675	22	299	44	9	1	2	1	0	0	0	0	6	46.2	52.6	46.4
00-00	N	P	4111	19	3828	34	104	84	12	7	6	1	0	0	0	0	16	41.9	50.8	43.6
00-00	S	S	4134	16	3728	22	305	44	9	1	2	1	0	0	0	0	6	46.2	52.6	46.4

Vehicles = 8245

Posted speed limit = 40 km/h, Exceeding = 6231 (75.57%), Mean Exceeding = 47.85 km/h

Maximum = 99.9 km/h, Minimum = 5.5 km/h, Mean = 44.1 km/h

85% Speed = 51.84 km/h, 95% Speed = 55.98 km/h, Median = 45.18 km/h

20 km/h Pace = 35 - 55, Number in Pace = 6750 (81.87%)

Variance = 80.67, Standard Deviation = 8.98 km/h

QLDC counts by day binned by hour_singlesheet_direction_split

Globals

Report Id	TRAFFIC_SS_STALKER ROAD 122M 2025-03-22T00_00_00 284
Descriptor	QLDC counts by day binned by hour_singlesheet_direction_split
Created by	MetroCount Traffic Executive
Creation Time (UTC)	2025-12-10T01:16:42
Legal	Copyright (c)1997 - 2019 MetroCount
Graphic	
Language	English
Country	New Zealand
Time	UTC + 780 min
Create Version	5.0.8.0
Metric	Metric
Speed Unit	km/h
Length Unit	metre
Mass Unit	tonne

Dataset

Site Name	STALKER ROAD 122M
Site Attribute	E1234567 N1234567
File Name	C:\Users\saraht\Downloads\STALKER ROAD 122M 0 2025-04-03 1251 (3).ec0
File Type	Plus
Algorithm	Factory default axle
Description	1906 STALKER ROAD 122M
Lane	0
Direction	5
Direction Text	5 - South bound A]B, North bound B]A.
Layout Text	Axle sensors - Paired (Class/Speed/Count)
Setup Time	2025-03-21T10:28:56
Start Time	2025-03-22T00:00:00
Finish Time	2025-04-03T12:50:56
Operator	DNZ
Configuration	80 00 0f a8 a8 00 00 00 00 00

Profile

Name	z_RAMM_Oct2011-NZTA_traffic_ss
Title	MetroCount Traffic Executive
Graphic Logo	
Header	
Footer	
Percentile 1	85
Percentile 2	95
Pace	20
Filter Start	2025-03-22T00:00:00
Filter End	2025-04-03T00:00:00
Class Scheme	NZTA2011
F	Cls(1-14) Dir(NESW) Sp(5,160) Headway(j0) Span(0 - 100) Lane(0-16)

Low Speed	5
High Speed	160
Posted Limit	40
Speed Limits	40 40 40 40 40 40 40 40 40
Separation	0.000
Separation Type	Headway
Direction	North East South West
Encoded Direction	15

Column	
Time [--	24-hour time (0000 - 2359)
Cd	Compass direction
Dir	Direction code
Total	Number in time step
Cls 1	Class totals
Cls 2	Class totals
Cls 3	Class totals
Cls 4	Class totals
Cls 5	Class totals
Cls 6	Class totals
Cls 7	Class totals
Cls 8	Class totals
Cls 9	Class totals
Cls 10	Class totals
Cls 11	Class totals
Cls 12	Class totals
Cls 13	Class totals
Cls 14	Class totals
Mean	Average speed
Vpp 85	Percentile speed
V50	50th percentile speed (Median)

Monday, 24 March 2025 Otago Anniversary Day Exclude

Time [--	Cd	Dir	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Cls 11	Cls 12	Cls 13	Cls 14	Mean	Vpp 85	V50						
0000	N	P	9	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	45.7	-	-					
0000	S	S	36	1	35	0	0	0	0	0	0	0	0	0	0	0	0	0	49.4	55.6	50.4					
0100	N	P	7	0	6	0	1	0	0	0	0	0	0	0	0	0	0	0	44.9	-	-					
0100	S	S	15	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	51.2	61.7	49.5					
0200	N	P	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	48.8	-	-					
0200	S	S	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	46.7	-	-					
0300	N	P	10	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	44.3	-	-					
0300	S	S	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	50.9	-	-					
0400	N	P	21	0	19	0	2	0	0	0	0	0	0	0	0	0	0	0	45.6	51.3	44.6					
0400	S	S	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	54.3	-	-					
0500	N	P	38	1	32	0	5	0	0	0	0	0	0	0	0	0	0	0	48.5	56.8	46.7					

0500	S	S	11	0	9	0	2	0	0	0	0	0	0	0	0	0	0	53.2	63.4	52.7
0600	N	P	79	1	64	0	14	0	0	0	0	0	0	0	0	0	0	43.7	50	43
0600	S	S	15	0	13	0	2	0	0	0	0	0	0	0	0	0	0	49.7	63	48.2
0700	N	P	190	0	167	2	21	0	0	0	0	0	0	0	0	0	0	45.7	53.3	45.2
0700	S	S	35	0	28	1	4	2	0	0	0	0	0	0	0	0	0	48.3	54.9	48.6
0800	N	P	197	0	166	4	23	4	0	0	0	0	0	0	0	0	0	44.7	51.8	44.8
0800	S	S	55	0	48	1	4	2	0	0	0	0	0	0	0	0	0	48.2	55.7	49.1
0900	N	P	288	1	250	0	31	5	0	0	0	0	0	0	0	0	1	45.1	51.8	44.8
0900	S	S	142	0	128	4	3	7	0	0	0	0	0	0	0	0	0	48	53.7	48.4
1000	N	P	264	3	236	3	20	1	0	1	0	0	0	0	0	0	0	46.4	54.2	46.8
1000	S	S	156	1	146	0	7	2	0	0	0	0	0	0	0	0	0	49	54.6	49.1
1100	N	P	293	2	268	3	19	1	0	0	0	0	0	0	0	0	0	45.9	52.6	45.2
1100	S	S	222	0	216	3	1	2	0	0	0	0	0	0	0	0	0	48.1	54.2	48.3
1200	N	P	278	5	235	3	22	11	2	0	0	0	0	0	0	0	0	47.2	54.7	46.8
1200	S	S	269	1	250	6	11	1	0	0	0	0	0	0	0	0	0	48.8	54.4	49.1
1300	N	P	256	2	216	3	26	7	0	2	0	0	0	0	0	0	0	46.3	52.8	46.4
1300	S	S	229	2	217	5	3	2	0	0	0	0	0	0	0	0	0	49.3	55.1	49.5
1400	N	P	227	3	197	2	17	4	3	1	0	0	0	0	0	0	0	45.9	53.6	45.9
1400	S	S	244	4	229	6	4	1	0	0	0	0	0	0	0	0	0	48.4	55.5	48.1
1500	N	P	229	3	207	2	9	6	1	1	0	0	0	0	0	0	0	46.5	54.2	45.9
1500	S	S	317	2	304	3	7	1	0	0	0	0	0	0	0	0	0	48	53.7	48.1
1600	N	P	211	3	193	0	13	2	0	0	0	0	0	0	0	0	0	47.3	54.3	46.8
1600	S	S	311	2	299	6	4	0	0	0	0	0	0	0	0	0	0	48.9	54.4	49
1700	N	P	219	2	205	0	10	0	2	0	0	0	0	0	0	0	0	47.5	55.4	47.2
1700	S	S	362	5	350	1	5	0	0	0	1	0	0	0	0	0	0	48.2	53.9	48.6
1800	N	P	190	2	176	1	10	0	0	1	0	0	0	0	0	0	0	46.9	54.4	45.9
1800	S	S	320	3	304	7	6	0	0	0	0	0	0	0	0	0	0	48.5	54.9	48.1
1900	N	P	141	1	130	3	7	0	0	0	0	0	0	0	0	0	0	46.2	55.7	44.6
1900	S	S	204	3	196	0	5	0	0	0	0	0	0	0	0	0	0	47.4	53.1	47.5
2000	N	P	92	0	83	0	9	0	0	0	0	0	0	0	0	0	0	44.8	54.4	43.1
2000	S	S	189	2	182	3	2	0	0	0	0	0	0	0	0	0	0	47.6	53.7	47.7
2100	N	P	61	0	55	0	5	1	0	0	0	0	0	0	0	0	0	47	55.7	47.3
2100	S	S	137	0	133	0	4	0	0	0	0	0	0	0	0	0	0	48.7	56.6	48.1
2200	N	P	23	0	21	0	2	0	0	0	0	0	0	0	0	0	0	46.6	60.8	43.7
2200	S	S	66	1	62	1	2	0	0	0	0	0	0	0	0	0	0	47.2	53.1	47.7
2300	N	P	9	0	8	0	1	0	0	0	0	0	0	0	0	0	0	45.9	-	-
2300	S	S	40	0	40	0	0	0	0	0	0	0	0	0	0	0	0	50.8	59.5	50
07-19	N	P	2842	26	2516	23	221	41	8	6	0	0	0	0	0	0	1	46.3	53.6	45.9
07-19	S	S	2662	20	2519	43	59	20	0	0	1	0	0	0	0	0	0	48.5	54.4	48.6
06-22	N	P	3215	28	2848	26	256	42	8	6	0	0	0	0	0	0	1	46.2	53.6	45.7
06-22	S	S	3207	25	3043	46	72	20	0	0	1	0	0	0	0	0	0	48.4	54.4	48.4
06-00	N	P	3247	28	2877	26	259	42	8	6	0	0	0	0	0	0	1	46.2	53.8	45.7
06-00	S	S	3313	26	3145	47	74	20	0	0	1	0	0	0	0	0	0	48.4	54.4	48.4
00-00	N	P	3336	29	2957	26	267	42	8	6	0	0	0	0	0	0	1	46.2	53.8	45.7
00-00	S	S	3385	27	3214	47	76	20	0	0	1	0	0	0	0	0	0	48.4	54.5	48.4

Vehicles = 6721

Posted speed limit = 40 km/h, Exceeding = 5788 (86.12%), Mean Exceeding = 49.09 km/h

Maximum = 92.9 km/h, Minimum = 11.4 km/h, Mean = 47.3 km/h

85% Speed = 54.18 km/h, 95% Speed = 58.86 km/h, Median = 47.16 km/h

20 km/h Pace = 37 - 57, Number in Pace = 5780 (86.00%)

Variance = 49.20, Standard Deviation = 7.01 km/h

Tuesday, 25 March 2025

Time [--]	Cd	Dir	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Cls 11	Cls 12	Cls 13	Cls 14	Mean	Vpp 85	V50						
0000	N	P	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	42.3	-	-					
0000	S	S	14	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	47.4	57.5	45.6					
0100	N	P	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	42.4	-	-					
0100	S	S	9	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	47.3	-	-					
0200	N	P	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	48.6	-	-					
0200	S	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-					
0300	N	P	14	0	13	0	1	0	0	0	0	0	0	0	0	0	0	0	46.3	52.8	47.1					
0300	S	S	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	49.7	-	-					
0400	N	P	21	0	16	0	5	0	0	0	0	0	0	0	0	0	0	0	47.4	57.6	47.3					
0400	S	S	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	45.3	-	-					
0500	N	P	105	1	86	0	18	0	0	0	0	0	0	0	0	0	0	0	46.8	55.1	47.3					
0500	S	S	7	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	46.8	-	-					
0600	N	P	221	2	194	1	24	0	0	0	0	0	0	0	0	0	0	0	46.1	54	45.5					
0600	S	S	39	0	35	0	4	0	0	0	0	0	0	0	0	0	0	0	50.5	56.3	51.5					
0700	N	P	536	3	472	1	54	1	0	1	2	0	0	0	0	0	2	32.7	46.6	37.1						
0700	S	S	164	0	160	0	4	0	0	0	0	0	0	0	0	0	0	0	46.8	52.9	46.8					
0800	N	P	360	5	340	1	12	1	0	0	0	0	0	0	0	0	1	7.8	9.5	7.4						
0800	S	S	132	1	128	0	3	0	0	0	0	0	0	0	0	0	0	0	42.2	47.5	43					
0900	N	P	262	1	245	1	13	1	1	0	0	0	0	0	0	0	0	0	43.2	51.6	44.6					
0900	S	S	201	2	190	2	5	1	1	0	0	0	0	0	0	0	0	0	47.5	53.9	47					
1000	N	P	195	1	175	2	16	0	0	0	0	0	0	0	0	0	1	45.6	54.1	45.9						
1000	S	S	129	0	121	1	6	1	0	0	0	0	0	0	0	0	0	0	47.8	54.6	47.2					
1100	N	P	211	2	191	1	15	2	0	0	0	0	0	0	0	0	0	0	45.8	52.8	45.9					
1100	S	S	194	1	180	4	7	2	0	0	0	0	0	0	0	0	0	0	47.3	53.3	47					
1200	N	P	203	4	168	4	23	3	0	0	0	0	0	0	0	0	1	45.6	53.4	45.5						
1200	S	S	209	0	196	2	6	3	0	1	0	0	0	0	0	0	1	49	55.2	49.5						
1300	N	P	204	3	172	2	23	3	0	0	0	0	0	0	0	0	1	45.6	54.4	45.5						
1300	S	S	181	0	171	1	4	4	1	0	0	0	0	0	0	0	0	0	49.9	57.2	49.9					
1400	N	P	182	0	156	1	17	8	0	0	0	0	0	0	0	0	0	0	47	57.2	46.4					
1400	S	S	284	2	272	2	6	1	0	0	0	1	0	0	0	0	0	0	48.3	54.2	48.4					
1500	N	P	261	0	241	0	12	4	2	2	0	0	0	0	0	0	0	0	44.8	51.5	44.5					
1500	S	S	325	3	309	2	8	3	0	0	0	0	0	0	0	0	0	0	48.3	54.4	48.4					
1600	N	P	246	3	213	2	19	4	0	3	0	0	0	0	0	0	2	48.2	55.1	47.7						
1600	S	S	437	4	418	2	7	4	0	0	0	1	0	0	1	0	0	0	48.6	54.4	48.6					
1700	N	P	220	0	198	0	18	2	1	0	0	0	0	0	0	0	1	47.1	54.2	46.6						
1700	S	S	560	7	531	8	9	2	1	2	0	0	0	0	0	0	0	0	47.6	53.3	47.7					
1800	N	P	201	2	188	1	10	0	0	0	0	0	0	0	0	0	0	0	46.7	54.5	45.9					
1800	S	S	431	7	411	5	7	1	0	0	0	0	0	0	0	0	0	0	47.9	53.1	47.9					
1900	N	P	163	0	150	1	12	0	0	0	0	0	0	0	0	0	0	0	45.7	53	45.4					
1900	S	S	297	2	287	2	5	1	0	0	0	0	0	0	0	0	0	0	47.7	53.9	47.5					
2000	N	P	78	0	75	0	1	1	1	0	0	0	0	0	0	0	0	0	46.2	52.8	46					
2000	S	S	222	1	213	2	5	0	0	1	0	0	0	0	0	0	0	0	47.4	53.7	47.1					
2100	N	P	61	0	58	0	3	0	0	0	0	0	0	0	0	0	0	0	46.3	55.7	45.9					
2100	S	S	148	2	143	0	2	1	0	0	0	0	0	0	0	0	0	0	48.6	55.1	48.6					
2200	N	P	35	0	33	0	1	1	0	0	0	0	0	0	0	0	0	0	46.3	57.2	45.4					
2200	S	S	86	3	80	2	1	0	0	0	0	0	0	0	0	0	0	0	48.4	52.9	48.2					
2300	N	P	20	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	42.9	48.7	42					
2300	S	S	56	0	56	0	0	0	0	0	0	0	0	0	0	0	0	0	48.6	54.7	48.1					
07-19	N	P	3081	24	2759	16	232	29	4	6	2	0	0	0	0	0	9	39.1	52	43.6						
07-19	S	S	3247	27	3087	29	72	22	3	3	0	2	0	0	1	0	1	47.8	54	47.9						
06-22	N	P	3604	26	3236	18	272	30	5	6	2	0	0	0	0	0	9	40.1	52.4	43.9						
06-22	S	S	3953	32	3765	33	88	24	3	4	0	2	0	0	1	0	1	47.9	54	47.9						
06-00	N	P	3659	26	3289	18	273	31	5	6	2	0	0	0	0	0	9	40.2	52.4	43.9						

06-00	S	S	4095	35	3901	35	89	24	3	4	0	2	0	0	1	0	1	47.9	54	47.9						
00-00	N	P	3806	27	3411	18	297	31	5	6	2	0	0	0	0	0	9	40.5	52.6	44.1						
00-00	S	S	4132	35	3938	35	89	24	3	4	0	2	0	0	1	0	1	47.9	54	47.9						

Vehicles = 7938

Posted speed limit = 40 km/h, Exceeding = 6295 (79.30%), Mean Exceeding = 48.79 km/h

Maximum = 87.7 km/h, Minimum = 5.0 km/h, Mean = 44.3 km/h

85% Speed = 53.46 km/h, 95% Speed = 57.96 km/h, Median = 46.44 km/h

20 km/h Pace = 37 - 57, Number in Pace = 6357 (80.08%)

Variance = 135.96, Standard Deviation = 11.66 km/h

Wednesday, 26 March 2025

Time [--]	Cd	Dir	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Cls 11	Cls 12	Cls 13	Cls 14	Mean	Vpp 85	V50						
0000	N	P	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	47.2	-	-						
0000	S	S	18	0	18	0	0	0	0	0	0	0	0	0	0	0	0	49.4	59.4	47.3						
0100	N	P	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	41.6	-	-						
0100	S	S	8	0	7	1	0	0	0	0	0	0	0	0	0	0	0	50.2	-	-						
0200	N	P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-					
0200	S	S	2	0	1	0	1	0	0	0	0	0	0	0	0	0	0	45.2	-	-						
0300	N	P	13	0	13	0	0	0	0	0	0	0	0	0	0	0	0	43.8	50.6	45.2						
0300	S	S	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	50.8	-	-						
0400	N	P	29	1	25	1	1	0	0	0	1	0	0	0	0	0	0	46.7	55.3	44.8						
0400	S	S	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	49.4	-	-						
0500	N	P	94	0	81	0	13	0	0	0	0	0	0	0	0	0	0	45.5	52	45.5						
0500	S	S	11	0	11	0	0	0	0	0	0	0	0	0	0	0	0	54.6	63.5	53.3						
0600	N	P	228	2	194	0	32	0	0	0	0	0	0	0	0	0	0	45.4	53.9	45.7						
0600	S	S	37	0	34	0	3	0	0	0	0	0	0	0	0	0	0	49.6	55.9	50.8						
0700	N	P	399	5	362	3	27	0	0	1	0	0	0	0	0	0	1	21.1	43.2	12.4						
0700	S	S	135	0	131	0	3	0	0	0	0	0	0	0	0	0	1	43.7	52.3	44.1						
0800	N	P	248	6	232	3	7	0	0	0	0	0	0	0	0	0	0	8.7	11.8	7.6						
0800	S	S	144	0	140	1	3	0	0	0	0	0	0	0	0	0	0	41.8	47.2	42.8						
0900	N	P	275	1	258	0	12	4	0	0	0	0	0	0	0	0	0	15.8	41.7	6.7						
0900	S	S	155	0	149	0	4	2	0	0	0	0	0	0	0	0	0	43.8	50.1	44.6						
1000	N	P	236	3	214	2	16	1	0	0	0	0	0	0	0	0	0	45.3	52.2	45.9						
1000	S	S	170	1	162	0	4	1	1	0	1	0	0	0	0	0	0	47.8	54.8	48.1						
1100	N	P	190	1	165	4	14	3	2	0	1	0	0	0	0	0	0	45.7	53.9	46.1						
1100	S	S	174	2	156	6	8	2	0	0	0	0	0	0	0	0	0	48.4	54.1	48.1						
1200	N	P	188	1	166	1	17	3	0	0	0	0	0	0	0	0	0	44.8	53	44.7						
1200	S	S	198	0	184	4	7	3	0	0	0	0	0	0	0	0	0	48.1	53.6	48.2						
1300	N	P	188	2	159	4	17	3	1	0	1	1	0	0	0	0	0	45.6	53.5	45.4						
1300	S	S	185	1	175	3	3	2	0	0	0	1	0	0	0	0	0	49.8	56.7	49.3						
1400	N	P	187	0	170	1	14	2	0	0	0	0	0	0	0	0	0	46.3	52.7	46.4						
1400	S	S	252	4	240	2	4	1	0	0	0	0	0	0	0	1	0	48.4	54.4	49.1						
1500	N	P	279	2	241	3	15	14	1	0	2	0	0	0	0	0	1	45.3	52	45						
1500	S	S	314	3	297	3	9	2	0	0	0	0	0	0	0	0	0	47.6	53.8	47.7						
1600	N	P	241	1	215	1	15	8	1	0	0	0	0	0	0	0	0	45.3	52.3	46.4						
1600	S	S	472	1	447	10	12	0	0	2	0	0	0	0	0	0	0	46.2	51.8	46.3						
1700	N	P	238	4	216	3	14	0	0	1	0	0	0	0	0	0	0	46.8	54.2	46.2						
1700	S	S	557	5	539	1	7	2	0	1	0	0	1	0	0	0	1	47.3	53.2	47.2						
1800	N	P	195	0	180	0	14	0	0	1	0	0	0	0	0	0	0	45.8	53.2	45.9						
1800	S	S	422	6	402	4	8	0	0	1	0	0	0	0	0	0	1	46.8	52.4	46.4						
1900	N	P	154	0	131	7	16	0	0	0	0	0	0	0	0	0	0	44.7	52.2	44						

1900	S	S	260	5	252	0	3	0	0	0	0	0	0	0	0	0	0	46.9	53.1	46.4						
2000	N	P	95	0	91	0	4	0	0	0	0	0	0	0	0	0	0	46.5	53.6	46.1						
2000	S	S	197	0	192	1	3	0	0	0	1	0	0	0	0	0	0	47.9	53.7	47.5						
2100	N	P	53	0	48	0	4	0	1	0	0	0	0	0	0	0	0	45.5	53.9	45.9						
2100	S	S	163	1	158	1	3	0	0	0	0	0	0	0	0	0	0	48.2	54.5	48.4						
2200	N	P	29	0	27	0	2	0	0	0	0	0	0	0	0	0	0	45.7	56.9	45.7						
2200	S	S	83	1	79	0	3	0	0	0	0	0	0	0	0	0	0	47.8	55.2	46.6						
2300	N	P	11	0	8	1	1	0	0	1	0	0	0	0	0	0	0	41	48.7	40.9						
2300	S	S	45	0	45	0	0	0	0	0	0	0	0	0	0	0	0	50	59.9	48.6						
07-19	N	P	2864	26	2578	25	182	38	5	3	4	1	0	0	0	0	2	36.2	51.1	42.7						
07-19	S	S	3178	23	3022	34	72	15	1	4	1	1	1	0	0	1	3	46.9	53.3	47						
06-22	N	P	3394	28	3042	32	238	38	6	3	4	1	0	0	0	0	2	37.6	51.5	43						
06-22	S	S	3835	29	3658	36	84	15	1	4	2	1	1	0	0	1	3	47	53.3	47.2						
06-00	N	P	3434	28	3077	33	241	38	6	4	4	1	0	0	0	0	2	37.7	51.5	43						
06-00	S	S	3963	30	3782	36	87	15	1	4	2	1	1	0	0	1	3	47.1	53.5	47.2						
00-00	N	P	3577	29	3203	34	255	38	6	4	5	1	0	0	0	0	2	38	51.7	43.2						
00-00	S	S	4009	30	3826	37	88	15	1	4	2	1	1	0	0	1	3	47.1	53.5	47.2						

Vehicles = 7586
 Posted speed limit = 40 km/h, Exceeding = 5738 (75.64%), Mean Exceeding = 48.50 km/h
 Maximum = 77.4 km/h, Minimum = 5.0 km/h, Mean = 42.8 km/h
 85% Speed = 52.74 km/h, 95% Speed = 57.42 km/h, Median = 45.54 km/h
 20 km/h Pace = 37 - 57, Number in Pace = 5923 (78.08%)
 Variance = 170.74, Standard Deviation = 13.07 km/h

Thursday, 27 March 2025

Time [--]	Cd	Dir	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Cls 11	Cls 12	Cls 13	Cls 14	Mean	Vpp 85	V50						
0000	N	P	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	41.8	-	-						
0000	S	S	19	1	18	0	0	0	0	0	0	0	0	0	0	0	0	51.7	61.4	49.9						
0100	N	P	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	48.3	-	-						
0100	S	S	18	0	17	0	1	0	0	0	0	0	0	0	0	0	0	48.9	56.6	47.4						
0200	N	P	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	47.5	-	-						
0200	S	S	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	50.2	-	-						
0300	N	P	11	0	11	0	0	0	0	0	0	0	0	0	0	0	0	42.9	52.8	42.5						
0300	S	S	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	50.8	-	-						
0400	N	P	27	0	23	0	3	0	0	0	1	0	0	0	0	0	0	45.1	55.5	45.4						
0400	S	S	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	55.3	-	-						
0500	N	P	90	1	77	0	12	0	0	0	0	0	0	0	0	0	0	45.6	54.3	44.6						
0500	S	S	12	0	10	0	2	0	0	0	0	0	0	0	0	0	0	47.6	56.8	46.9						
0600	N	P	224	3	189	2	30	0	0	0	0	0	0	0	0	0	0	44.5	52.1	44.2						
0600	S	S	38	0	36	0	2	0	0	0	0	0	0	0	0	0	0	50.5	58.2	50.9						
0700	N	P	520	6	461	2	50	0	1	0	0	0	0	0	0	0	0	33.4	46.2	38						
0700	S	S	128	0	118	0	6	3	0	0	1	0	0	0	0	0	0	44.6	51.1	44.8						
0800	N	P	354	5	330	2	10	3	1	0	0	0	0	0	0	0	3	8.4	11.7	6.8						
0800	S	S	179	1	173	1	4	0	0	0	0	0	0	0	0	0	0	41.1	47.7	42.5						
0900	N	P	263	3	242	2	13	2	1	0	0	0	0	0	0	0	0	43.9	50.8	44.3						
0900	S	S	193	1	184	2	3	3	0	0	0	0	0	0	0	0	0	46.4	52	46.4						
1000	N	P	248	0	229	1	17	1	0	0	0	0	0	0	0	0	0	44	51.1	44.3						
1000	S	S	187	1	174	3	4	5	0	0	0	0	0	0	0	0	0	47.3	54.7	47.7						
1100	N	P	192	0	168	3	19	1	0	0	0	0	0	0	0	0	1	43.8	51.7	44.7						
1100	S	S	183	0	170	1	7	3	2	0	0	0	0	0	0	0	0	46.7	54	47.2						
1200	N	P	201	1	192	0	8	0	0	0	0	0	0	0	0	0	0	44.1	50.8	43.9						

1200	S	S	240	1	224	1	9	5	0	0	0	0	0	0	0	0	0	47.5	53.8	47.9
1300	N	P	181	0	167	0	10	2	0	1	0	0	0	0	0	0	1	46.5	53.8	46.8
1300	S	S	224	0	216	0	5	3	0	0	0	0	0	0	0	0	0	47.8	54	47.7
1400	N	P	193	0	177	1	13	2	0	0	0	0	0	0	0	0	0	46.6	54.5	47
1400	S	S	293	1	275	5	6	5	0	0	1	0	0	0	0	0	0	47.1	53.1	47.3
1500	N	P	292	1	270	2	16	3	0	0	0	0	0	0	0	0	0	44.2	54	44.8
1500	S	S	343	2	331	1	7	2	0	0	0	0	0	0	0	0	0	47.2	52.9	47.3
1600	N	P	214	0	203	0	9	0	2	0	0	0	0	0	0	0	0	47.2	54	47.2
1600	S	S	462	1	447	3	10	1	0	0	0	0	0	0	0	0	0	47.3	52.9	47.3
1700	N	P	225	2	215	0	6	0	1	0	0	1	0	0	0	0	0	46.3	52.2	46.3
1700	S	S	593	5	568	9	10	1	0	0	0	0	0	0	0	0	0	47.6	53.4	47.3
1800	N	P	192	0	174	0	17	1	0	0	0	0	0	0	0	0	0	46.2	56	45.8
1800	S	S	371	4	357	3	7	0	0	0	0	0	0	0	0	0	0	47.7	54	47.3
1900	N	P	174	0	161	1	11	0	0	0	1	0	0	0	0	0	0	45.9	53.6	45.5
1900	S	S	260	3	247	2	6	0	2	0	0	0	0	0	0	0	0	47.5	53.8	47
2000	N	P	94	0	84	0	10	0	0	0	0	0	0	0	0	0	0	47.1	56	44.9
2000	S	S	205	2	196	1	6	0	0	0	0	0	0	0	0	0	0	47.5	53.7	47.3
2100	N	P	54	1	45	1	7	0	0	0	0	0	0	0	0	0	0	47.2	56.1	46.4
2100	S	S	136	0	133	0	3	0	0	0	0	0	0	0	0	0	0	47.8	54.4	47.1
2200	N	P	31	0	30	0	1	0	0	0	0	0	0	0	0	0	0	43.9	51.8	43.4
2200	S	S	103	1	98	1	3	0	0	0	0	0	0	0	0	0	0	48.2	57.3	46.8
2300	N	P	12	0	11	0	1	0	0	0	0	0	0	0	0	0	0	43.2	47.8	44
2300	S	S	64	0	64	0	0	0	0	0	0	0	0	0	0	0	0	49.1	55.4	49.1
07-19	N	P	3075	18	2828	13	188	15	6	1	0	1	0	0	0	0	5	39	51.3	43.2
07-19	S	S	3396	17	3237	29	78	31	2	0	2	0	0	0	0	0	0	46.9	53.1	47
06-22	N	P	3621	22	3307	17	246	15	6	1	1	1	0	0	0	0	5	40	51.7	43.4
06-22	S	S	4035	22	3849	32	95	31	4	0	2	0	0	0	0	0	0	47	53.3	47.2
06-00	N	P	3664	22	3348	17	248	15	6	1	1	1	0	0	0	0	5	40	51.7	43.4
06-00	S	S	4202	23	4011	33	98	31	4	0	2	0	0	0	0	0	0	47.1	53.5	47.2
00-00	N	P	3802	23	3469	17	263	15	6	1	2	1	0	0	0	0	5	40.2	51.7	43.4
00-00	S	S	4266	24	4071	33	101	31	4	0	2	0	0	0	0	0	0	47.1	53.5	47.2

Vehicles = 8068

Posted speed limit = 40 km/h, Exceeding = 6268 (77.69%), Mean Exceeding = 48.38 km/h

Maximum = 97.9 km/h, Minimum = 5.0 km/h, Mean = 43.9 km/h

85% Speed = 52.74 km/h, 95% Speed = 57.24 km/h, Median = 45.72 km/h

20 km/h Pace = 36 - 56, Number in Pace = 6507 (80.65%)

Variance = 130.23, Standard Deviation = 11.41 km/h

Friday, 28 March 2025

Time [--]	Cd	Dir	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Cls 11	Cls 12	Cls 13	Cls 14	Mean	Vpp 85	V50						
0000	N	P	13	0	13	0	0	0	0	0	0	0	0	0	0	0	0	46.2	51.1	44.8						
0000	S	S	30	1	29	0	0	0	0	0	0	0	0	0	0	0	0	49	56.2	48.8						
0100	N	P	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	50.1	-	-						
0100	S	S	8	1	7	0	0	0	0	0	0	0	0	0	0	0	0	49.3	-	-						
0200	N	P	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	50.1	-	-						
0200	S	S	9	0	9	0	0	0	0	0	0	0	0	0	0	0	0	49.5	-	-						
0300	N	P	11	0	11	0	0	0	0	0	0	0	0	0	0	0	0	42.8	56.5	41.9						
0300	S	S	8	0	8	0	0	0	0	0	0	0	0	0	0	0	0	51.3	-	-						
0400	N	P	23	1	20	0	2	0	0	0	0	0	0	0	0	0	0	44.2	54.8	46.1						
0400	S	S	6	1	5	0	0	0	0	0	0	0	0	0	0	0	0	51.4	-	-						
0500	N	P	97	0	85	0	12	0	0	0	0	0	0	0	0	0	0	46.2	54.2	46.1						

0500	S	S	16	0	15	0	1	0	0	0	0	0	0	0	0	0	49	55.7	50.4	
0600	N	P	221	2	187	3	28	0	1	0	0	0	0	0	0	0	45.1	52.3	44.3	
0600	S	S	38	0	35	0	3	0	0	0	0	0	0	0	0	0	48.6	57.1	48.4	
0700	N	P	541	2	462	1	71	1	2	1	1	0	0	0	0	0	41.2	48.2	41.8	
0700	S	S	95	0	87	4	3	0	1	0	0	0	0	0	0	0	46.3	52.4	45.7	
0800	N	P	339	6	323	3	4	2	0	1	0	0	0	0	0	0	9	10.3	7	
0800	S	S	165	1	159	1	3	0	0	0	1	0	0	0	0	0	42	47.3	42.5	
0900	N	P	276	2	254	3	14	1	0	0	0	0	1	0	0	1	41.2	49.5	43.6	
0900	S	S	201	0	190	4	5	2	0	0	0	0	0	0	0	0	46.9	52	47.9	
1000	N	P	218	2	201	2	13	0	0	0	0	0	0	0	0	0	46.7	52.9	46.7	
1000	S	S	174	1	168	1	4	0	0	0	0	0	0	0	0	0	46.4	54	46.3	
1100	N	P	215	0	191	4	17	1	0	1	0	0	0	0	1	0	44.4	52	45.7	
1100	S	S	195	1	177	10	5	1	0	1	0	0	0	0	0	0	49.1	55.6	49.3	
1200	N	P	192	0	167	4	14	6	0	0	0	0	0	0	0	1	46.2	53.6	46.1	
1200	S	S	207	0	199	2	4	2	0	0	0	0	0	0	0	0	48.5	54.7	48.6	
1300	N	P	216	2	188	4	19	3	0	0	0	0	0	0	0	0	46.2	53.7	45.4	
1300	S	S	215	1	206	1	5	2	0	0	0	0	0	0	0	0	49	54.5	49.1	
1400	N	P	218	3	187	2	18	8	0	0	0	0	0	0	0	0	46.9	55.1	47.3	
1400	S	S	280	4	264	6	4	2	0	0	0	0	0	0	0	0	48.8	54.5	48.8	
1500	N	P	270	1	237	2	21	6	0	2	0	0	0	0	1	0	45	53.2	45.2	
1500	S	S	353	4	332	6	9	1	0	0	0	0	0	0	0	1	49.1	55.3	49.1	
1600	N	P	260	5	222	4	21	7	0	1	0	0	0	0	0	0	45.8	53.1	45.9	
1600	S	S	525	3	508	2	9	1	0	0	0	0	1	0	0	1	47.9	53.3	47.7	
1700	N	P	258	1	233	1	21	0	0	1	0	0	0	0	0	1	46.9	54.5	46.4	
1700	S	S	427	2	414	5	5	1	0	0	0	0	0	0	0	0	49.1	55.3	48.6	
1800	N	P	197	1	176	4	12	0	2	0	0	0	0	0	0	2	45.6	53.1	45	
1800	S	S	402	6	384	3	8	0	1	0	0	0	0	0	0	0	47.8	53.8	47.3	
1900	N	P	175	0	164	1	10	0	0	0	0	0	0	0	0	0	45.5	52.7	45.4	
1900	S	S	296	3	279	3	9	0	1	0	0	0	0	0	0	1	47.4	53.3	47.2	
2000	N	P	105	0	101	1	3	0	0	0	0	0	0	0	0	0	44.8	51.5	45	
2000	S	S	213	4	202	2	5	0	0	0	0	0	0	0	0	0	47.2	53.1	47	
2100	N	P	62	0	58	0	4	0	0	0	0	0	0	0	0	0	46	53.5	45.7	
2100	S	S	168	0	165	2	1	0	0	0	0	0	0	0	0	0	47.9	54.7	47.7	
2200	N	P	50	0	46	0	4	0	0	0	0	0	0	0	0	0	45.1	52	44.7	
2200	S	S	105	2	99	1	3	0	0	0	0	0	0	0	0	0	47	53.2	46.6	
2300	N	P	25	0	25	0	0	0	0	0	0	0	0	0	0	0	43.7	52.5	41.4	
2300	S	S	66	1	64	0	1	0	0	0	0	0	0	0	0	0	48.9	56.9	49.8	
07-19	N	P	3200	25	2841	34	245	35	4	7	1	0	1	0	2	0	5	40.8	52	43.7
07-19	S	S	3239	23	3088	45	64	12	2	1	1	0	1	0	0	0	2	47.9	54.2	47.9
06-22	N	P	3763	27	3351	39	290	35	5	7	1	0	1	0	2	0	5	41.5	52	43.9
06-22	S	S	3954	30	3769	52	82	12	3	1	1	0	1	0	0	0	3	47.9	54.2	47.9
06-00	N	P	3838	27	3422	39	294	35	5	7	1	0	1	0	2	0	5	41.6	52	43.9
06-00	S	S	4125	33	3932	53	86	12	3	1	1	0	1	0	0	0	3	47.9	54.2	47.7
00-00	N	P	3989	28	3558	39	308	35	5	7	1	0	1	0	2	0	5	41.7	52.2	44.1
00-00	S	S	4202	36	4005	53	87	12	3	1	1	0	1	0	0	0	3	47.9	54.2	47.9

Vehicles = 8191

Posted speed limit = 40 km/h, Exceeding = 6581 (80.34%), Mean Exceeding = 48.65 km/h

Maximum = 77.5 km/h, Minimum = 5.0 km/h, Mean = 44.9 km/h

85% Speed = 53.28 km/h, 95% Speed = 57.78 km/h, Median = 46.26 km/h

20 km/h Pace = 37 - 57, Number in Pace = 6688 (81.65%)

Variance = 111.15, Standard Deviation = 10.54 km/h

Monday, 31 March 2025

Time [--]	Cd	Dir	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Cls 11	Cls 12	Cls 13	Cls 14	Mean	Vpp 85	V50						
0000	N	P	4	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	44.3	-	-					
0000	S	S	16	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	50	58.5	49.1					
0100	N	P	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	42.4	-	-					
0100	S	S	15	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	51	57.5	50.8					
0200	N	P	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	50.7	-	-					
0200	S	S	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	49.6	-	-					
0300	N	P	15	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	45.6	52.9	45.4					
0300	S	S	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	52.2	-	-					
0400	N	P	20	0	18	0	2	0	0	0	0	0	0	0	0	0	0	0	43.8	54.5	42					
0400	S	S	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	49.8	-	-					
0500	N	P	78	0	71	0	7	0	0	0	0	0	0	0	0	0	0	0	47.1	55.5	47.1					
0500	S	S	9	0	7	0	2	0	0	0	0	0	0	0	0	0	0	0	52.2	-	-					
0600	N	P	211	4	179	0	28	0	0	0	0	0	0	0	0	0	0	0	46.4	54.4	45.4					
0600	S	S	32	0	31	0	1	0	0	0	0	0	0	0	0	0	0	0	48.9	58.2	48.7					
0700	N	P	504	0	452	6	45	0	0	0	1	0	0	0	0	0	0	0	35.2	47.5	39.8					
0700	S	S	97	0	91	1	5	0	0	0	0	0	0	0	0	0	0	0	44.9	51.7	45.7					
0800	N	P	319	1	298	2	13	2	1	0	1	0	0	0	0	0	0	1	11.6	16.9	7.7					
0800	S	S	145	0	137	3	5	0	0	0	0	0	0	0	0	0	0	0	45	50.8	45.2					
0900	N	P	256	1	234	2	19	0	0	0	0	0	0	0	0	0	0	0	45.5	52.4	44.5					
0900	S	S	137	0	128	2	4	2	0	1	0	0	0	0	0	0	0	0	47.3	53.3	47.7					
1000	N	P	217	0	201	3	13	0	0	0	0	0	0	0	0	0	0	0	45.6	51.4	45.7					
1000	S	S	173	1	162	2	5	2	0	0	0	1	0	0	0	0	0	0	47.4	54.5	47.7					
1100	N	P	216	0	203	1	10	0	2	0	0	0	0	0	0	0	0	0	46	53.3	45.5					
1100	S	S	200	0	183	1	11	4	0	1	0	0	0	0	0	0	0	0	47	53.1	46.7					
1200	N	P	213	1	191	3	17	1	0	0	0	0	0	0	0	0	0	0	45.3	53.1	45.7					
1200	S	S	224	2	209	2	9	2	0	0	0	0	0	0	0	0	0	0	48.7	54.5	49					
1300	N	P	199	2	180	2	10	4	1	0	0	0	0	0	0	0	0	0	45.7	53.5	45.4					
1300	S	S	206	3	196	2	1	4	0	0	0	0	0	0	0	0	0	0	49.1	55.1	49.3					
1400	N	P	212	1	187	2	15	6	0	1	0	0	0	0	0	0	0	0	46.2	54	46					
1400	S	S	284	1	274	1	5	3	0	0	0	0	0	0	0	0	0	0	47.4	52.7	47.5					
1500	N	P	320	1	288	2	20	7	0	2	0	0	0	0	0	0	0	0	45.8	52.6	45.2					
1500	S	S	342	2	325	5	7	3	0	0	0	0	0	0	0	0	0	0	47.9	53.1	47.6					
1600	N	P	231	1	204	4	16	4	1	0	1	0	0	0	0	0	0	0	46.9	53.7	47.5					
1600	S	S	465	0	449	4	9	2	0	1	0	0	0	0	0	0	0	0	47.4	53.3	47.9					
1700	N	P	218	2	199	2	14	0	0	1	0	0	0	0	0	0	0	0	45.5	52.2	45.7					
1700	S	S	563	4	547	3	7	1	0	1	0	0	0	0	0	0	0	0	47.5	53.1	47.5					
1800	N	P	181	0	168	2	11	0	0	0	0	0	0	0	0	0	0	0	47	54.3	47					
1800	S	S	367	5	353	4	5	0	0	0	0	0	0	0	0	0	0	0	48.1	54	48.1					
1900	N	P	144	0	134	3	6	0	0	1	0	0	0	0	0	0	0	0	47	53.8	46.1					
1900	S	S	242	2	232	2	5	0	0	0	0	0	0	0	0	0	0	1	47.3	53.6	47.4					
2000	N	P	72	0	68	2	2	0	0	0	0	0	0	0	0	0	0	0	47	57.2	45.5					
2000	S	S	169	2	162	2	3	0	0	0	0	0	0	0	0	0	0	0	46.8	53	46.8					
2100	N	P	31	0	27	0	3	0	0	1	0	0	0	0	0	0	0	0	44.1	54.1	43.2					
2100	S	S	143	1	136	1	5	0	0	0	0	0	0	0	0	0	0	0	47.9	54.7	47.3					
2200	N	P	22	0	21	0	1	0	0	0	0	0	0	0	0	0	0	0	45	54.9	44.6					
2200	S	S	55	0	53	0	2	0	0	0	0	0	0	0	0	0	0	0	47.2	54.2	46.6					
2300	N	P	9	0	7	0	2	0	0	0	0	0	0	0	0	0	0	0	45.7	-	-					
2300	S	S	44	2	42	0	0	0	0	0	0	0	0	0	0	0	0	0	50.3	56.7	51.5					
07-19	N	P	3086	10	2805	31	203	24	5	4	3	0	0	0	0	0	0	1	40.6	51.8	43.9					
07-19	S	S	3203	18	3054	30	73	23	0	4	0	1	0	0	0	0	0	0	47.6	53.5	47.5					
06-22	N	P	3544	14	3213	36	242	24	5	6	3	0	0	0	0	0	0	1	41.4	52.2	44.1					
06-22	S	S	3789	23	3615	35	87	23	0	4	0	1	0	0	0	0	0	1	47.5	53.5	47.5					
06-00	N	P	3575	14	3241	36	245	24	5	6	3	0	0	0	0	0	0	1	41.4	52.2	44.1					

06-00	S	S	3888	25	3710	35	89	23	0	4	0	1	0	0	0	0	1	47.6	53.5	47.5						
00-00	N	P	3700	14	3356	37	254	24	5	6	3	0	0	0	0	0	1	41.6	52.2	44.1						
00-00	S	S	3938	25	3758	35	91	23	0	4	0	1	0	0	0	0	1	47.6	53.5	47.7						

Vehicles = 7638

Posted speed limit = 40 km/h, Exceeding = 6146 (80.47%), Mean Exceeding = 48.52 km/h

Maximum = 86.6 km/h, Minimum = 5.1 km/h, Mean = 44.7 km/h

85% Speed = 53.10 km/h, 95% Speed = 57.60 km/h, Median = 46.08 km/h

20 km/h Pace = 36 - 56, Number in Pace = 6279 (82.21%)

Variance = 115.16, Standard Deviation = 10.73 km/h

Tuesday, 1 April 2025

Time [--	Cd	Dir	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Cls 11	Cls 12	Cls 13	Cls 14	Mean	Vpp 85	V50						
0000	N	P	11	0	11	0	0	0	0	0	0	0	0	0	0	0	0	44.3	57.8	41						
0000	S	S	18	0	17	0	1	0	0	0	0	0	0	0	0	0	0	49.6	55.4	51.5						
0100	N	P	3	0	2	0	1	0	0	0	0	0	0	0	0	0	0	50.3	-	-						
0100	S	S	10	0	10	0	0	0	0	0	0	0	0	0	0	0	0	49.9	-	-						
0200	N	P	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	47.3	-	-						
0200	S	S	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	43.8	-	-						
0300	N	P	14	0	14	0	0	0	0	0	0	0	0	0	0	0	0	42.8	49.5	43.8						
0300	S	S	6	0	6	0	0	0	0	0	0	0	0	0	0	0	0	48.6	-	-						
0400	N	P	16	0	13	0	3	0	0	0	0	0	0	0	0	0	0	49.4	57	50						
0400	S	S	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	41.4	-	-						
0500	N	P	112	0	101	0	11	0	0	0	0	0	0	0	0	0	0	46.3	54.5	45.6						
0500	S	S	14	0	14	0	0	0	0	0	0	0	0	0	0	0	0	51	57.7	51.3						
0600	N	P	220	3	184	0	33	0	0	0	0	0	0	0	0	0	0	45.7	53.2	45						
0600	S	S	39	0	37	0	1	0	1	0	0	0	0	0	0	0	0	48.9	55.4	49						
0700	N	P	493	3	437	4	48	1	0	0	0	0	0	0	0	0	0	33.5	48.8	38.7						
0700	S	S	102	0	98	2	1	1	0	0	0	0	0	0	0	0	0	44	50.7	44.5						
0800	N	P	333	2	305	1	16	6	0	0	1	0	0	0	0	0	2	7.9	9.2	7						
0800	S	S	122	0	113	4	4	1	0	0	0	0	0	0	0	0	0	41.7	49.5	42.2						
0900	N	P	289	0	272	2	12	2	0	0	0	0	0	0	0	0	1	38.5	50.9	43						
0900	S	S	179	1	170	0	7	1	0	0	0	0	0	0	0	0	0	46.3	52.4	45.9						
1000	N	P	180	0	161	0	18	0	0	0	0	0	0	0	0	0	1	46.5	54.9	45.8						
1000	S	S	169	0	157	1	8	2	0	0	0	0	0	0	0	0	1	47.8	53.6	47.9						
1100	N	P	211	1	190	3	16	0	0	0	0	0	0	0	0	0	1	45.5	52	45.4						
1100	S	S	199	1	184	4	7	3	0	0	0	0	0	0	0	0	0	46.9	53.1	47.3						
1200	N	P	188	2	172	0	12	0	1	0	0	0	0	0	0	0	1	45.5	52.4	45.8						
1200	S	S	201	0	191	2	5	3	0	0	0	0	0	0	0	0	0	47.4	54.4	46.6						
1300	N	P	215	0	193	0	20	1	0	1	0	0	0	0	0	0	0	46	53.6	46.4						
1300	S	S	203	2	193	0	6	2	0	0	0	0	0	0	0	0	0	48.6	55	48.8						
1400	N	P	210	2	184	1	15	6	0	2	0	0	0	0	0	0	0	45	52.7	45						
1400	S	S	260	4	241	2	8	3	1	0	0	0	0	0	0	0	1	48	53.5	48.4						
1500	N	P	294	1	272	0	10	9	1	1	0	0	0	0	0	0	0	46.3	53.8	45.8						
1500	S	S	319	2	307	3	6	0	0	0	0	0	0	0	0	0	1	49.2	55.3	49.1						
1600	N	P	219	2	193	2	16	5	0	1	0	0	0	0	0	0	0	45.5	52.7	45.7						
1600	S	S	472	5	450	5	10	2	0	0	0	0	0	0	0	0	0	48.4	54.4	48.8						
1700	N	P	261	2	248	0	11	0	0	0	0	0	0	0	0	0	0	46.3	52.3	45.7						
1700	S	S	571	2	558	2	8	1	0	0	0	0	0	0	0	0	0	48.2	53.5	47.9						
1800	N	P	245	2	225	1	16	1	0	0	0	0	0	0	0	0	0	47.3	53.5	47.2						
1800	S	S	413	7	396	5	5	0	0	0	0	0	0	0	0	0	0	48.2	54	48.2						
1900	N	P	154	1	146	1	6	0	0	0	0	0	0	0	0	0	0	44.8	51.8	44.1						

1900	S	S	264	1	258	0	5	0	0	0	0	0	0	0	0	0	0	47.2	54.4	46.8						
2000	N	P	95	0	86	0	8	0	0	1	0	0	0	0	0	0	0	44.8	51.6	44.3						
2000	S	S	213	0	208	0	4	0	0	1	0	0	0	0	0	0	0	46.7	53.3	46.4						
2100	N	P	55	0	51	0	4	0	0	0	0	0	0	0	0	0	0	45.9	51.5	44.8						
2100	S	S	190	0	186	1	3	0	0	0	0	0	0	0	0	0	0	47.7	54	47.3						
2200	N	P	32	0	29	0	3	0	0	0	0	0	0	0	0	0	0	44	55.4	45						
2200	S	S	86	1	83	0	1	0	0	0	1	0	0	0	0	0	0	46.1	53.2	45.5						
2300	N	P	13	0	13	0	0	0	0	0	0	0	0	0	0	0	0	43.1	49.7	44.3						
2300	S	S	42	0	42	0	0	0	0	0	0	0	0	0	0	0	0	50	57	50.1						
07-19	N	P	3138	17	2852	14	210	31	2	5	1	0	0	0	0	0	6	39.3	51.7	43.7						
07-19	S	S	3210	24	3058	30	75	19	1	0	0	0	0	0	0	0	3	47.7	53.6	47.9						
06-22	N	P	3662	21	3319	15	261	31	2	6	1	0	0	0	0	0	6	40.2	51.8	43.9						
06-22	S	S	3916	25	3747	31	88	19	2	1	0	0	0	0	0	0	3	47.6	53.8	47.7						
06-00	N	P	3707	21	3361	15	264	31	2	6	1	0	0	0	0	0	6	40.2	51.8	43.9						
06-00	S	S	4044	26	3872	31	89	19	2	1	1	0	0	0	0	0	3	47.6	53.8	47.7						
00-00	N	P	3867	21	3506	15	279	31	2	6	1	0	0	0	0	0	6	40.5	51.8	43.9						
00-00	S	S	4097	26	3924	31	90	19	2	1	1	0	0	0	0	0	3	47.6	53.8	47.7						

Vehicles = 7964
 Posted speed limit = 40 km/h, Exceeding = 6261 (78.62%), Mean Exceeding = 48.65 km/h
 Maximum = 105.3 km/h, Minimum = 5.0 km/h, Mean = 44.2 km/h
 85% Speed = 53.10 km/h, 95% Speed = 57.60 km/h, Median = 46.08 km/h
 20 km/h Pace = 37 - 57, Number in Pace = 6416 (80.56%)
 Variance = 137.63, Standard Deviation = 11.73 km/h

Wednesday, 2 April 2025

Time [--]	Cd	Dir	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Cls 11	Cls 12	Cls 13	Cls 14	Mean	Vpp 85	V50						
0000	N	P	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	47.4	-	-						
0000	S	S	24	0	23	0	1	0	0	0	0	0	0	0	0	0	0	49.7	58.5	49.4						
0100	N	P	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	53.2	-	-						
0100	S	S	6	0	6	0	0	0	0	0	0	0	0	0	0	0	0	51.5	-	-						
0200	N	P	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	54.6	-	-						
0200	S	S	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	47.8	-	-						
0300	N	P	12	0	12	0	0	0	0	0	0	0	0	0	0	0	0	44.4	54.7	44.9						
0300	S	S	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	46.4	-	-						
0400	N	P	23	1	19	0	3	0	0	0	0	0	0	0	0	0	0	47.2	53.9	49.1						
0400	S	S	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	49.1	-	-						
0500	N	P	85	0	74	0	11	0	0	0	0	0	0	0	0	0	0	46.8	56.9	45.5						
0500	S	S	8	0	7	0	1	0	0	0	0	0	0	0	0	0	0	54.6	-	-						
0600	N	P	219	2	180	3	33	0	0	0	0	0	0	0	0	0	1	44.7	52.6	43.7						
0600	S	S	34	0	30	2	2	0	0	0	0	0	0	0	0	0	0	50.3	58.3	50						
0700	N	P	483	5	440	5	31	0	0	0	0	0	0	0	0	0	2	29.5	45.8	33.5						
0700	S	S	141	0	134	1	6	0	0	0	0	0	0	0	0	0	0	47.6	52	50.6						
0800	N	P	327	6	304	2	6	5	0	0	0	0	0	0	0	0	4	7.5	9.5	6.7						
0800	S	S	187	0	180	3	2	1	0	0	1	0	0	0	0	0	0	40.9	46.8	42.3						
0900	N	P	276	2	259	1	13	1	0	0	0	0	0	0	0	0	0	40.1	50.8	44						
0900	S	S	185	0	172	3	7	3	0	0	0	0	0	0	0	0	0	46.9	52.9	47.5						
1000	N	P	246	1	230	2	10	1	1	0	0	0	0	0	0	0	1	44	51.1	44.3						
1000	S	S	177	3	162	1	8	2	0	1	0	0	0	0	0	0	0	47.1	52.8	47.2						
1100	N	P	205	1	181	3	18	1	0	0	0	0	0	0	0	0	1	45.6	53.8	43.9						
1100	S	S	190	2	174	4	7	3	0	0	0	0	0	0	0	0	0	47.1	53.9	47.4						
1200	N	P	231	0	212	0	18	0	0	1	0	0	0	0	0	0	0	44.9	52	45.4						

1200	S	S	236	1	221	4	6	3	1	0	0	0	0	0	0	0	0	47.4	53.5	47.9						
1300	N	P	204	3	176	3	17	2	1	2	0	0	0	0	0	0	0	44.5	51.7	44.4						
1300	S	S	209	0	201	3	3	2	0	0	0	0	0	0	0	0	0	47.1	53.1	47.3						
1400	N	P	209	0	188	2	16	1	1	0	0	0	0	0	0	0	0	45.3	52.6	46.1						
1400	S	S	289	2	278	1	6	2	0	0	0	0	0	0	0	0	0	47.1	53.4	46.8						
1500	N	P	306	2	276	5	17	3	1	0	0	0	0	1	0	0	0	45.1	51.7	44.5						
1500	S	S	358	4	336	8	6	2	0	1	0	0	0	0	0	0	0	47.4	53.5	47.2						
1600	N	P	234	2	215	2	15	0	0	0	0	0	0	0	0	0	0	47.3	55.2	46.8						
1600	S	S	404	3	387	4	9	0	0	1	0	0	0	0	0	0	0	47.9	53.5	47.3						
1700	N	P	176	0	166	2	8	0	0	0	0	0	0	0	0	0	0	46.7	53.4	46.4						
1700	S	S	496	1	485	3	6	0	0	1	0	0	0	0	0	0	0	48.7	54.2	49						
1800	N	P	184	0	170	1	13	0	0	0	0	0	0	0	0	0	0	45.9	52.6	46.3						
1800	S	S	452	4	434	5	8	1	0	0	0	0	0	0	0	0	0	48	53.3	47.9						
1900	N	P	149	0	133	5	11	0	0	0	0	0	0	0	0	0	0	46.2	54.4	45.9						
1900	S	S	258	3	247	2	6	0	0	0	0	0	0	0	0	0	0	48.4	54.9	48.4						
2000	N	P	90	0	81	0	9	0	0	0	0	0	0	0	0	0	0	46	52.3	46						
2000	S	S	201	0	197	1	3	0	0	0	0	0	0	0	0	0	0	48	54.6	47.3						
2100	N	P	42	0	40	0	2	0	0	0	0	0	0	0	0	0	0	46.4	54.6	45.6						
2100	S	S	164	2	158	0	4	0	0	0	0	0	0	0	0	0	0	48.5	55.1	48.7						
2200	N	P	34	0	33	0	1	0	0	0	0	0	0	0	0	0	0	44.3	55.7	43.1						
2200	S	S	117	2	113	1	1	0	0	0	0	0	0	0	0	0	0	47.6	53.1	47.3						
2300	N	P	15	0	15	0	0	0	0	0	0	0	0	0	0	0	0	41.4	48.7	41.6						
2300	S	S	36	0	36	0	0	0	0	0	0	0	0	0	0	0	0	50.6	59.9	49.5						
07-19	N	P	3081	22	2817	28	182	14	4	3	0	0	1	0	0	0	10	38.4	51.1	42.7						
07-19	S	S	3324	20	3164	40	74	19	1	4	1	0	0	0	0	0	1	47.3	53.3	47.3						
06-22	N	P	3581	24	3251	36	237	14	4	3	0	0	1	0	0	0	11	39.4	51.3	43						
06-22	S	S	3981	25	3796	45	89	19	1	4	1	0	0	0	0	0	1	47.5	53.5	47.5						
06-00	N	P	3630	24	3299	36	238	14	4	3	0	0	1	0	0	0	11	39.5	51.3	43						
06-00	S	S	4134	27	3945	46	90	19	1	4	1	0	0	0	0	0	1	47.5	53.5	47.5						
00-00	N	P	3757	25	3411	36	252	14	4	3	0	0	1	0	0	0	11	39.7	51.5	43.2						
00-00	S	S	4183	27	3992	46	92	19	1	4	1	0	0	0	0	0	1	47.5	53.6	47.5						

Vehicles = 7940

Posted speed limit = 40 km/h, Exceeding = 6191 (77.97%), Mean Exceeding = 48.49 km/h

Maximum = 86.2 km/h, Minimum = 5.0 km/h, Mean = 43.8 km/h

85% Speed = 52.92 km/h, 95% Speed = 57.42 km/h, Median = 45.90 km/h

20 km/h Pace = 36 - 56, Number in Pace = 6351 (79.99%)

Variance = 138.35, Standard Deviation = 11.76 km/h

Virtual Day (12)

Time [--]	Cd	Dir	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Cls 11	Cls 12	Cls 13	Cls 14	Mean	Vpp 85	V50						
0000	N	P	10	0	10	0	0	0	0	0	0	0	0	0	0	0	0	44.6	-	-						
0000	S	S	27	0	26	0	0	0	0	0	0	0	0	0	0	0	0	50	57.6	49						
0100	N	P	5	0	5	0	1	0	0	0	0	0	0	0	0	0	0	47.8	-	-						
0100	S	S	15	0	14	0	0	0	0	0	0	0	0	0	0	0	0	50.1	58.1	50						
0200	N	P	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	47.8	-	-						
0200	S	S	6	0	6	0	0	0	0	0	0	0	0	0	0	0	0	48.3	-	-						
0300	N	P	13	0	13	0	0	0	0	0	0	0	0	0	0	0	0	44.5	52.6	44.8						
0300	S	S	7	0	7	0	0	0	0	0	0	0	0	0	0	0	0	51.9	-	-						
0400	N	P	22	0	19	0	2	0	0	0	0	0	0	0	0	0	0	45.9	54.9	46.2						
0400	S	S	6	0	5	0	0	0	0	0	0	0	0	0	0	0	0	50.6	-	-						
0500	N	P	68	0	59	0	9	0	0	0	0	0	0	0	0	0	0	46.2	54.5	45.9						

Vehicles = 88226
 Posted speed limit = 40 km/h, Exceeding = 71679 (81.24%), Mean Exceeding = 48.73 km/h
 Maximum = 105.3 km/h, Minimum = 5.0 km/h, Mean = 45.2 km/h
 85% Speed = 53.46 km/h, 95% Speed = 57.96 km/h, Median = 46.44 km/h
 20 km/h Pace = 37 - 57, Number in Pace = 72626 (82.32%)
 Variance = 105.04, Standard Deviation = 10.25 km/h

QLDC counts by day binned by hour_singlesheet_direction_split

Globals

Report Id	TRAFFIC_SS_LOWER SHOTOVER ROAD 1170M 2024-04-12T00_00_00 280
Descriptor	QLDC counts by day binned by hour_singlesheet_direction_split
Created by	MetroCount Traffic Executive
Creation Time (UTC)	2025-12-10T01:05:02
Legal	Copyright (c)1997 - 2019 MetroCount
Graphic	
Language	English
Country	New Zealand
Time	UTC + 780 min
Create Version	5.0.8.0
Metric	Metric
Speed Unit	km/h
Length Unit	metre
Mass Unit	tonne

Dataset

Site Name	LOWER SHOTOVER ROAD 1170M
Site Attribute	E1234567 N1234567
File Name	C:\Users\saraht\Downloads\LOWER SHOTOVER ROAD 1170M 0 2024-04-19 1003 (1).ec0
File Type	Plus
Algorithm	Factory default axle
Description	414 LOWER SHOTOVER ROAD 1170M
Lane	0
Direction	7
Direction Text	7 - North bound A B, South bound B A.
Layout Text	Axle sensors - Paired (Class/Speed/Count)
Setup Time	2024-04-11T08:21:43
Start Time	2024-04-11T08:21:43
Finish Time	2024-04-19T10:03:43
Operator	DNZ
Configuration	80 00 0f a8 a8 00 00 00 00 00

Profile

Name	z_RAMM_Oct2011-NZTA_traffic_ss
Title	MetroCount Traffic Executive
Graphic Logo	
Header	
Footer	
Percentile 1	85
Percentile 2	95
Pace	20
Filter Start	2024-04-12T00:00:00
Filter End	2024-04-19T00:00:00
Class Scheme	NZTA2011
F	Cls(1-14) Dir(NESW) Sp(5,160) Headway(j0) Span(0 - 100) Lane(0-16)

Low Speed	5
High Speed	160
Posted Limit	80
Speed Limits	80 80 80 80 80 80 80 80 80
Separation	0.000
Separation Type	Headway
Direction	North East South West
Encoded Direction	15

Column	
Time [--	24-hour time (0000 - 2359)
Cd	Compass direction
Dir	Direction code
Total	Number in time step
Cls 1	Class totals
Cls 2	Class totals
Cls 3	Class totals
Cls 4	Class totals
Cls 5	Class totals
Cls 6	Class totals
Cls 7	Class totals
Cls 8	Class totals
Cls 9	Class totals
Cls 10	Class totals
Cls 11	Class totals
Cls 12	Class totals
Cls 13	Class totals
Cls 14	Class totals
Mean	Average speed
Vpp 85	Percentile speed
V50	50th percentile speed (Median)

Friday, 12 April 2024

Time [--	Cd	Dir	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Cls 11	Cls 12	Cls 13	Cls 14	Mean	Vpp 85	V50						
0000	N	P	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	62.9	-	-					
0000	S	S	7	0	6	0	1	0	0	0	0	0	0	0	0	0	0	0	63	-	-					
0100	N	P	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	68.7	-	-					
0100	S	S	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	66.7	-	-					
0200	N	P	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	59.6	-	-					
0200	S	S	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	50.1	-	-					
0300	N	P	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	68.2	-	-					
0300	S	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-					
0400	N	P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-					
0400	S	S	3	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	76.3	-	-					
0500	N	P	5	0	3	0	2	0	0	0	0	0	0	0	0	0	0	0	66.6	-	-					
0500	S	S	25	0	21	1	3	0	0	0	0	0	0	0	0	0	0	0	72.9	81.8	72.4					

Vehicles = 6045
 Posted speed limit = 80 km/h, Exceeding = 202 (3.342%), Mean Exceeding = 85.51 km/h
 Maximum = 138.4 km/h, Minimum = 15.8 km/h, Mean = 64.7 km/h
 85% Speed = 73.26 km/h, 95% Speed = 78.30 km/h, Median = 64.80 km/h
 20 km/h Pace = 55 - 75, Number in Pace = 4689 (77.57%)
 Variance = 79.00, Standard Deviation = 8.89 km/h

Monday, 15 April 2024

Time [--]	Cd	Dir	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Cls 11	Cls 12	Cls 13	Cls 14	Mean	Vpp 85	V50						
0000	N	P	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	60.8	-	-					
0000	S	S	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	70	-	-					
0100	N	P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-					
0100	S	S	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	65.4	-	-					
0200	N	P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-					
0200	S	S	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	65	-	-					
0300	N	P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-					
0300	S	S	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	65.8	-	-					
0400	N	P	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	86.5	-	-					
0400	S	S	11	0	9	1	1	0	0	0	0	0	0	0	0	0	0	0	79.4	87.9	78.3					
0500	N	P	9	0	7	0	2	0	0	0	0	0	0	0	0	0	0	0	70.3	-	-					
0500	S	S	34	0	32	1	0	1	0	0	0	0	0	0	0	0	0	0	76.9	84.5	76.4					
0600	N	P	43	0	41	0	2	0	0	0	0	0	0	0	0	0	0	0	68.1	78.8	67.5					
0600	S	S	77	0	64	2	9	1	0	1	0	0	0	0	0	0	0	0	67.6	81.4	68.8					
0700	N	P	281	0	256	6	11	3	3	2	0	0	0	0	0	0	0	0	62.7	72.2	63.9					
0700	S	S	213	0	188	2	8	11	2	0	1	0	0	1	0	0	0	0	65.7	74.7	66.4					
0800	N	P	236	1	213	11	6	2	2	0	1	0	0	0	0	0	0	0	57.9	66.3	58					
0800	S	S	281	0	254	4	9	10	1	0	3	0	0	0	0	0	0	0	61.1	69.2	61.6					
0900	N	P	223	0	201	12	4	4	1	0	0	0	0	0	1	0	0	0	56.1	63.9	55.6					
0900	S	S	225	2	201	6	4	5	3	0	1	0	0	0	0	0	3	58.6	70.6	60.7						
1000	N	P	214	2	188	9	8	4	2	0	0	0	0	0	1	0	0	57.1	64.3	57.1						
1000	S	S	216	0	189	6	11	7	1	0	1	0	0	0	1	0	0	61.1	70.9	60.8						
1100	N	P	178	0	160	5	6	4	1	0	1	1	0	0	0	0	0	59.4	67	59.5						
1100	S	S	194	0	166	6	10	11	1	0	0	0	0	0	0	0	0	62.9	72.4	62.8						
1200	N	P	231	0	213	2	8	7	1	0	0	0	0	0	0	0	0	55.9	63.9	54.4						
1200	S	S	205	0	179	4	13	5	2	0	0	2	0	0	0	0	0	60.8	68.8	61.4						
1300	N	P	210	0	194	4	7	2	2	1	0	0	0	0	0	0	0	56.4	63.5	56.3						
1300	S	S	219	1	201	6	6	4	1	0	0	0	0	0	0	0	0	58.9	67.9	59.6						
1400	N	P	219	2	198	7	5	5	1	0	0	1	0	0	0	0	0	57	63.4	55.6						
1400	S	S	223	0	190	4	17	8	2	0	1	0	0	0	0	0	1	59.9	69.5	60.3						
1500	N	P	201	1	183	7	4	4	2	0	0	0	0	0	0	0	0	58	63.7	58.5						
1500	S	S	246	3	211	3	17	10	1	0	1	0	0	0	0	0	0	60.3	69.5	60						
1600	N	P	228	0	211	6	5	3	0	0	0	1	0	2	0	0	0	56.5	63.5	57.5						
1600	S	S	284	2	250	8	17	2	2	0	1	0	0	0	0	0	2	57.9	66.6	58.3						
1700	N	P	233	1	224	3	2	1	0	2	0	0	0	0	0	0	0	62.1	71.5	62.6						
1700	S	S	366	0	344	3	10	6	0	0	0	1	0	0	0	0	2	60.6	72.4	63.3						
1800	N	P	141	1	137	1	0	2	0	0	0	0	0	0	0	0	0	68.6	74.8	68.8						
1800	S	S	147	0	134	1	5	6	0	0	0	0	0	0	0	0	1	68.4	76.3	68.6						
1900	N	P	96	1	89	4	1	1	0	0	0	0	0	0	0	0	0	67.6	75.9	67.5						
1900	S	S	60	0	57	1	1	1	0	0	0	0	0	0	0	0	0	70.5	79.5	70.5						
2000	N	P	60	1	57	0	2	0	0	0	0	0	0	0	0	0	0	68.2	75.9	69.3						
2000	S	S	39	1	34	0	4	0	0	0	0	0	0	0	0	0	0	70.8	79	70.4						
2100	N	P	51	1	48	0	2	0	0	0	0	0	0	0	0	0	0	69	77.6	69.7						
2100	S	S	17	0	15	1	1	0	0	0	0	0	0	0	0	0	0	70.9	78.5	70.9						
2200	N	P	14	0	13	0	1	0	0	0	0	0	0	0	0	0	0	66.3	81.3	65.5						
2200	S	S	19	0	18	0	1	0	0	0	0	0	0	0	0	0	0	71.2	78.5	72.2						
2300	N	P	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	79.6	-	-						
2300	S	S	3	1	2	0	0	0	0	0	0	0	0	0	0	0	0	75.5	-	-						
07-19	N	P	2595	8	2378	73	66	41	15	5	2	3	0	2	2	0	0	58.8	67.5	58.5						
07-19	S	S	2819	8	2507	53	127	85	16	0	9	3	0	1	1	0	9	61	70.7	61.7						
06-22	N	P	2845	11	2613	77	73	42	15	5	2	3	0	2	2	0	0	59.6	69.1	59						
06-22	S	S	3012	9	2677	57	142	87	16	1	9	3	0	1	1	0	9	61.5	71.5	62.1						
06-00	N	P	2863	11	2630	77	74	42	15	5	2	3	0	2	2	0	0	59.7	69.1	59						

06-00	S	S	3034	10	2697	57	143	87	16	1	9	3	0	1	1	0	9	61.6	71.6	62.3						
00-00	N	P	2878	11	2643	77	76	42	15	5	2	3	0	2	2	0	0	59.7	69.3	59						
00-00	S	S	3088	10	2747	59	144	88	16	1	9	3	0	1	1	0	9	61.9	71.9	62.5						

Vehicles = 5966

Posted speed limit = 80 km/h, Exceeding = 131 (2.196%), Mean Exceeding = 85.23 km/h

Maximum = 113.6 km/h, Minimum = 11.1 km/h, Mean = 60.8 km/h

85% Speed = 70.92 km/h, 95% Speed = 76.32 km/h, Median = 60.66 km/h

20 km/h Pace = 51 - 71, Number in Pace = 4289 (71.89%)

Variance = 99.61, Standard Deviation = 9.98 km/h

Tuesday, 16 April 2024

Time [--	Cd	Dir	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Cls 11	Cls 12	Cls 13	Cls 14	Mean	Vpp 85	V50						
0000	N	P	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	67.7	-	-					
0000	S	S	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	77.3	-	-					
0100	N	P	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	66.4	-	-					
0100	S	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-					
0200	N	P	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	70.8	-	-					
0200	S	S	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	82.2	-	-					
0300	N	P	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	47.9	-	-					
0300	S	S	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	61.1	-	-					
0400	N	P	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	76.6	-	-					
0400	S	S	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	90.6	-	-					
0500	N	P	5	0	3	0	2	0	0	0	0	0	0	0	0	0	0	0	71.1	-	-					
0500	S	S	43	0	40	2	1	0	0	0	0	0	0	0	0	0	0	0	76.7	85	75.1					
0600	N	P	50	0	46	0	2	0	2	0	0	0	0	0	0	0	0	0	66.5	76.3	67.1					
0600	S	S	65	0	61	0	4	0	0	0	0	0	0	0	0	0	0	0	69.6	79.6	70.6					
0700	N	P	301	0	282	4	11	2	0	1	1	0	0	0	0	0	0	0	60.6	69.3	61.2					
0700	S	S	215	0	192	1	8	8	3	1	0	0	0	0	0	1	1	0	61.2	72.6	62.6					
0800	N	P	276	0	259	6	5	2	0	0	1	1	0	0	0	1	0	0	49	57.6	49					
0800	S	S	297	2	261	3	11	8	1	0	0	1	0	0	0	0	0	10	48.1	58	50.2					
0900	N	P	222	1	202	8	8	1	0	0	0	0	1	0	0	0	0	1	49.8	56.5	49.9					
0900	S	S	234	1	210	3	5	7	1	0	0	1	0	0	0	0	1	5	46.2	55.2	46.6					
1000	N	P	197	2	180	3	2	6	1	0	0	1	0	0	0	0	1	1	40.8	51.5	39.8					
1000	S	S	232	0	199	5	9	13	2	1	0	0	0	0	0	0	0	3	40.2	49.9	39.6					
1100	N	P	203	0	183	3	11	2	2	0	1	1	0	0	0	0	0	0	33.7	39.6	32.9					
1100	S	S	243	0	212	0	6	18	2	0	0	0	1	0	0	0	1	3	32.5	39.6	33.1					
1200	N	P	210	2	186	5	8	7	1	0	1	0	0	0	0	0	0	0	34.2	39.3	34.4					
1200	S	S	216	0	185	3	14	8	0	0	2	0	1	0	0	0	0	3	29.8	37.5	30.1					
1300	N	P	227	1	200	9	9	5	2	0	0	0	0	0	0	0	0	1	32.9	38.9	32.4					
1300	S	S	231	4	199	4	17	3	3	0	0	0	0	0	0	0	1	0	29.7	35.6	29.3					
1400	N	P	233	1	203	6	14	6	3	0	0	0	0	0	0	0	0	0	32.9	38.7	32					
1400	S	S	224	3	188	5	16	8	3	1	0	0	0	0	0	0	0	0	32.4	38.6	32.8					
1500	N	P	250	3	225	10	5	5	1	0	0	0	0	0	0	0	1	0	40.3	49.2	40.1					
1500	S	S	269	0	228	9	14	10	5	1	0	0	1	0	0	0	0	1	41.5	50.4	40.7					
1600	N	P	261	0	237	1	7	11	2	0	0	0	0	0	1	0	1	1	50.6	59.9	51.5					
1600	S	S	300	2	268	6	10	8	3	0	1	0	1	0	0	0	0	1	51.7	62.1	52.5					
1700	N	P	261	0	253	2	4	1	0	0	1	0	0	0	0	0	0	0	63.1	73.5	63.7					
1700	S	S	333	0	309	4	6	10	3	0	0	0	0	0	0	0	0	1	59.8	70	59.8					
1800	N	P	148	0	143	0	5	0	0	0	0	0	0	0	0	0	0	0	65.8	74	66					
1800	S	S	144	0	133	0	6	4	1	0	0	0	0	0	0	0	0	0	63.6	73.4	64.3					
1900	N	P	95	0	94	1	0	0	0	0	0	0	0	0	0	0	0	0	67.2	76.2	67.1					

1900	S	S	66	0	62	0	2	2	0	0	0	0	0	0	0	0	0	69	77.7	68.9						
2000	N	P	71	0	70	0	1	0	0	0	0	0	0	0	0	0	0	68.8	77.3	68.2						
2000	S	S	36	0	36	0	0	0	0	0	0	0	0	0	0	0	0	71.9	80.6	73.4						
2100	N	P	40	0	36	1	3	0	0	0	0	0	0	0	0	0	0	70.2	80.8	68.8						
2100	S	S	31	0	28	1	1	1	0	0	0	0	0	0	0	0	0	66.3	76.3	66.8						
2200	N	P	21	0	20	0	0	1	0	0	0	0	0	0	0	0	0	70.2	86.3	69.3						
2200	S	S	13	0	13	0	0	0	0	0	0	0	0	0	0	0	0	70.5	81.9	71.1						
2300	N	P	9	0	8	0	1	0	0	0	0	0	0	0	0	0	0	71.6	-	-						
2300	S	S	6	0	6	0	0	0	0	0	0	0	0	0	0	0	0	68.7	-	-						
07-19	N	P	2789	10	2553	57	89	48	12	1	5	3	2	1	0	4	4	46.4	62.5	45						
07-19	S	S	2938	12	2584	43	122	105	27	4	3	2	4	0	1	4	27	44.9	61.4	43.2						
06-22	N	P	3045	10	2799	59	95	48	14	1	5	3	2	1	0	4	4	48.3	65.5	47.2						
06-22	S	S	3136	12	2771	44	129	108	27	4	3	2	4	0	1	4	27	46.4	64.1	44.9						
06-00	N	P	3075	10	2827	59	96	49	14	1	5	3	2	1	0	4	4	48.5	65.9	47.5						
06-00	S	S	3155	12	2790	44	129	108	27	4	3	2	4	0	1	4	27	46.5	64.3	45.2						
00-00	N	P	3087	10	2837	59	98	49	14	1	5	3	2	1	0	4	4	48.5	65.9	47.5						
00-00	S	S	3204	12	2836	46	130	108	27	4	3	2	4	0	1	4	27	47	65.5	45.5						

Vehicles = 6291

Posted speed limit = 80 km/h, Exceeding = 90 (1.431%), Mean Exceeding = 85.96 km/h

Maximum = 101.7 km/h, Minimum = 5.2 km/h, Mean = 47.8 km/h

85% Speed = 65.70 km/h, 95% Speed = 73.80 km/h, Median = 46.44 km/h

20 km/h Pace = 27 - 47, Number in Pace = 2800 (44.51%)

Variance = 239.50, Standard Deviation = 15.48 km/h

Wednesday, 17 April 2024

Time [--]	Cd	Dir	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Cls 11	Cls 12	Cls 13	Cls 14	Mean	Vpp 85	V50						
0000	N	P	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	61.7	-	-						
0000	S	S	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	69.1	-	-						
0100	N	P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-						
0100	S	S	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	76	-	-						
0200	N	P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-						
0200	S	S	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	58.5	-	-						
0300	N	P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-						
0300	S	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-						
0400	N	P	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	74.8	-	-						
0400	S	S	7	0	7	0	0	0	0	0	0	0	0	0	0	0	0	75.2	-	-						
0500	N	P	10	0	8	0	2	0	0	0	0	0	0	0	0	0	0	73.7	-	-						
0500	S	S	34	0	34	0	0	0	0	0	0	0	0	0	0	0	0	73.2	83.7	73.1						
0600	N	P	52	0	49	0	3	0	0	0	0	0	0	0	0	0	0	67.3	77.4	68.8						
0600	S	S	72	0	65	2	4	0	1	0	0	0	0	0	0	0	0	67.5	80.1	68.9						
0700	N	P	308	0	293	5	7	3	0	0	0	0	0	0	0	0	0	54.6	64.4	55						
0700	S	S	207	1	177	3	8	14	1	0	0	0	0	0	0	0	3	55.7	67.6	55.6						
0800	N	P	254	1	233	6	7	4	3	0	0	0	0	0	0	0	0	38.8	45.2	38.3						
0800	S	S	270	2	229	8	7	14	2	0	0	0	1	0	0	0	7	29	40.5	26.4						
0900	N	P	235	0	212	10	8	2	0	0	2	0	0	0	0	1	0	35.1	40.6	34.6						
0900	S	S	289	2	260	2	6	10	2	0	0	0	0	0	0	0	7	23.7	28.2	23.4						
1000	N	P	229	1	205	10	6	4	2	0	0	0	0	0	1	0	0	36.1	41.9	36						
1000	S	S	217	3	178	3	8	12	5	0	2	0	0	0	0	0	6	22.3	27.7	22.9						
1100	N	P	226	1	204	8	5	5	1	0	0	0	1	1	0	0	0	35.2	40.5	35.6						
1100	S	S	238	3	209	6	11	5	1	1	0	1	0	0	0	0	1	21.8	26.1	21.6						
1200	N	P	229	0	198	7	14	7	2	0	1	0	0	0	0	0	0	35.1	43.8	34.6						

1200	S	S	224	2	200	3	12	5	1	0	0	1	0	0	0	0	0	30.4	41.6	29.5						
1300	N	P	260	3	227	5	17	7	1	0	0	0	0	0	0	0	0	31.2	35.6	31.5						
1300	S	S	223	0	209	4	5	2	2	0	0	0	0	0	0	0	1	33.6	38.6	34						
1400	N	P	219	0	193	2	10	8	4	1	0	0	0	0	0	0	1	32.3	38	32.6						
1400	S	S	262	2	227	9	8	5	4	1	2	0	0	0	0	0	4	33.5	38.6	33.8						
1500	N	P	217	3	187	8	9	7	0	0	1	0	0	0	0	1	1	32.5	37.8	32						
1500	S	S	238	1	207	6	6	5	6	0	0	0	0	0	0	0	7	33.2	37.6	33.5						
1600	N	P	274	2	248	6	14	3	0	0	1	0	0	0	0	0	0	49.1	63.9	51.7						
1600	S	S	287	0	244	8	15	8	6	0	0	0	0	0	0	0	6	48.6	61.4	50						
1700	N	P	235	1	229	2	2	0	1	0	0	0	0	0	0	0	0	66.5	75.7	67						
1700	S	S	377	0	354	2	12	6	0	0	1	0	0	0	0	0	2	65.1	73.1	65.7						
1800	N	P	168	0	161	2	1	4	0	0	0	0	0	0	0	0	0	70.7	79.5	70.2						
1800	S	S	164	2	139	5	9	5	0	0	3	0	0	0	0	0	1	67.1	75.3	68.7						
1900	N	P	92	1	87	0	4	0	0	0	0	0	0	0	0	0	0	69.9	76.2	69.7						
1900	S	S	70	0	63	0	6	1	0	0	0	0	0	0	0	0	0	71	79.1	71.2						
2000	N	P	69	1	63	2	3	0	0	0	0	0	0	0	0	0	0	71.3	80.8	71.6						
2000	S	S	42	0	39	0	1	2	0	0	0	0	0	0	0	0	0	68.8	76.8	68.9						
2100	N	P	53	0	48	1	4	0	0	0	0	0	0	0	0	0	0	69.9	78.1	70.2						
2100	S	S	24	0	24	0	0	0	0	0	0	0	0	0	0	0	0	71.8	81.4	70.3						
2200	N	P	19	0	19	0	0	0	0	0	0	0	0	0	0	0	0	72.2	82.3	70.4						
2200	S	S	25	0	25	0	0	0	0	0	0	0	0	0	0	0	0	72.8	85	70.6						
2300	N	P	12	0	11	0	1	0	0	0	0	0	0	0	0	0	0	61.7	72.5	62.4						
2300	S	S	13	0	13	0	0	0	0	0	0	0	0	0	0	0	0	69.2	77.7	69.5						
07-19	N	P	2854	12	2590	71	100	54	14	1	5	0	1	1	1	2	2	42.9	62.5	37.6						
07-19	S	S	2996	18	2633	59	107	91	30	2	8	2	1	0	0	0	45	39	62.6	34						
06-22	N	P	3120	14	2837	74	114	54	14	1	5	0	1	1	1	2	2	45.2	67.1	39.2						
06-22	S	S	3204	18	2824	61	118	94	31	2	8	2	1	0	0	0	45	40.9	65.9	35.1						
06-00	N	P	3151	14	2867	74	115	54	14	1	5	0	1	1	1	2	2	45.4	67.3	39.4						
06-00	S	S	3242	18	2862	61	118	94	31	2	8	2	1	0	0	0	45	41.3	66.6	35.3						
00-00	N	P	3166	14	2880	74	117	54	14	1	5	0	1	1	1	2	2	45.5	67.5	39.6						
00-00	S	S	3291	18	2911	61	118	94	31	2	8	2	1	0	0	0	45	41.8	67.3	35.6						

Vehicles = 6457

Posted speed limit = 80 km/h, Exceeding = 144 (2.230%), Mean Exceeding = 84.71 km/h

Maximum = 102.1 km/h, Minimum = 5.4 km/h, Mean = 43.6 km/h

85% Speed = 67.32 km/h, 95% Speed = 74.70 km/h, Median = 37.80 km/h

20 km/h Pace = 21 - 41, Number in Pace = 3310 (51.26%)

Variance = 327.27, Standard Deviation = 18.09 km/h

Thursday, 18 April 2024

Time [--]	Cd	Dir	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Cls 11	Cls 12	Cls 13	Cls 14	Mean	Vpp 85	V50						
0000	N	P	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	68.4	-	-						
0000	S	S	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	78.8	-	-						
0100	N	P	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	72.2	-	-						
0100	S	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-						
0200	N	P	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	68.4	-	-						
0200	S	S	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	67.9	-	-						
0300	N	P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-						
0300	S	S	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	119.2	-	-						
0400	N	P	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	64.6	-	-						
0400	S	S	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	71	-	-						
0500	N	P	2	0	1	0	1	0	0	0	0	0	0	0	0	0	0	64.1	-	-						

0500	S	S	23	0	22	0	1	0	0	0	0	0	0	0	0	0	0	75.5	85.6	74.7
0600	N	P	52	0	47	0	3	0	1	0	0	1	0	0	0	0	0	69.8	79.4	70.9
0600	S	S	71	0	58	2	9	0	2	0	0	0	0	0	0	0	0	68	79.4	68
0700	N	P	297	0	274	5	13	4	1	0	0	0	0	0	0	0	0	63.7	72.4	63.4
0700	S	S	227	0	199	2	10	13	1	1	0	1	0	0	0	0	0	65.1	71.3	65.5
0800	N	P	268	0	235	8	14	6	1	1	1	0	0	1	1	0	0	57.7	64.9	57.8
0800	S	S	304	2	265	4	8	16	3	0	2	0	0	0	1	0	3	61.4	69.2	62.3
0900	N	P	217	1	196	4	11	3	0	0	2	0	0	0	0	0	0	56.2	62.4	56.9
0900	S	S	261	2	217	4	19	11	4	2	0	0	0	0	0	0	2	57.4	65	58.1
1000	N	P	235	3	213	2	10	3	2	0	0	0	0	1	1	0	0	55.2	63.4	56
1000	S	S	210	0	185	1	8	12	2	0	1	1	0	0	0	0	0	56.7	63.8	56.8
1100	N	P	283	1	243	9	15	8	2	0	1	0	0	1	1	0	2	59.4	65.9	59.2
1100	S	S	231	2	200	5	8	9	3	0	0	1	0	1	0	0	2	58.6	66.8	59.4
1200	N	P	215	0	189	8	8	4	3	0	0	1	0	1	1	0	0	60.7	68.2	60.8
1200	S	S	222	1	198	5	10	6	0	0	1	0	0	0	0	0	1	60.8	69.9	60.8
1300	N	P	227	1	206	6	9	4	0	0	0	1	0	0	0	0	0	59.6	66.8	60.1
1300	S	S	231	2	193	8	18	6	2	1	1	0	0	0	0	0	0	62.1	70.7	63.5
1400	N	P	208	0	181	13	8	4	0	0	1	0	0	0	0	0	1	61.3	68.4	61.2
1400	S	S	221	2	192	9	10	5	0	0	0	0	0	1	1	0	1	61.8	70.9	62.6
1500	N	P	230	3	198	5	13	5	2	0	0	1	0	0	0	3	0	60.4	68.8	59.5
1500	S	S	241	0	215	7	9	3	0	3	2	1	0	0	0	1	0	61.1	70.2	61.6
1600	N	P	248	3	222	7	10	5	0	0	0	0	0	0	0	0	1	62.7	72.2	62.3
1600	S	S	308	3	265	7	20	8	1	0	0	0	0	1	2	0	1	62.3	71.8	62.2
1700	N	P	227	3	210	6	7	0	0	0	0	0	1	0	0	0	0	69.8	77.4	70.6
1700	S	S	363	1	335	3	13	9	0	2	0	0	0	0	0	0	0	68.9	75.5	69.5
1800	N	P	172	1	162	1	7	0	0	0	0	1	0	0	0	0	0	66.6	75.1	66.8
1800	S	S	162	0	148	2	6	6	0	0	0	0	0	0	0	0	0	66.1	75.3	66.5
1900	N	P	96	0	90	0	6	0	0	0	0	0	0	0	0	0	0	71	78.7	71.1
1900	S	S	81	0	74	0	6	0	0	0	0	0	0	0	1	0	0	70.9	79.1	71.1
2000	N	P	69	0	66	0	3	0	0	0	0	0	0	0	0	0	0	70.6	80.6	70.4
2000	S	S	42	0	42	0	0	0	0	0	0	0	0	0	0	0	0	70.4	77.1	71
2100	N	P	43	0	41	0	2	0	0	0	0	0	0	0	0	0	0	69.9	79.3	69.5
2100	S	S	29	0	27	0	1	1	0	0	0	0	0	0	0	0	0	72.4	81	70.9
2200	N	P	27	0	26	0	1	0	0	0	0	0	0	0	0	0	0	71.3	81.4	68.6
2200	S	S	25	0	21	0	3	1	0	0	0	0	0	0	0	0	0	70.4	78.3	69.5
2300	N	P	12	0	10	0	2	0	0	0	0	0	0	0	0	0	0	72.8	83.4	69.8
2300	S	S	9	0	7	0	2	0	0	0	0	0	0	0	0	0	0	72.4	-	-
07-19	N	P	2827	16	2529	74	125	46	11	1	5	4	2	4	3	3	4	61	69.7	60.8
07-19	S	S	2981	15	2612	57	139	104	16	9	7	4	0	3	4	1	10	62.1	71.3	62.6
06-22	N	P	3087	16	2773	74	139	46	12	1	5	5	2	4	3	3	4	61.8	71.1	61.4
06-22	S	S	3204	15	2813	59	155	105	18	9	7	4	0	3	5	1	10	62.6	72	63.2
06-00	N	P	3126	16	2809	74	142	46	12	1	5	5	2	4	3	3	4	61.9	71.3	61.4
06-00	S	S	3238	15	2841	59	160	106	18	9	7	4	0	3	5	1	10	62.7	72.2	63.2
00-00	N	P	3134	16	2815	74	143	46	12	1	5	5	2	4	4	3	4	61.9	71.3	61.6
00-00	S	S	3272	15	2874	59	161	106	18	9	7	4	0	3	5	1	10	62.9	72.4	63.4

Vehicles = 6406

Posted speed limit = 80 km/h, Exceeding = 187 (2.919%), Mean Exceeding = 85.12 km/h

Maximum = 123.7 km/h, Minimum = 12.3 km/h, Mean = 62.4 km/h

85% Speed = 72.00 km/h, 95% Speed = 77.94 km/h, Median = 62.28 km/h

20 km/h Pace = 52 - 72, Number in Pace = 4746 (74.09%)

Variance = 94.34, Standard Deviation = 9.71 km/h

Appendix B

2025 Baseline + Development Origin / Destination Trip Matrices



AM PEAK 1

Matrix 1								
0 - 900	7:00	Light						
	1	2	3	4	5	6	7	8
1	0.0	19.0	1.4	0.5	1.4	0.8	0.6	0.0
2	27.6	0.0	10.8	14.2	48.5	8.6	6.5	0.0
3	4.0	49.0	0.0	0.7	2.7	0.0	0.0	0.0
4	1.5	61.6	0.9	0.0	7.8	0.0	0.0	0.0
5	2.4	107.8	1.6	4.6	0.0	3.0	2.3	0.0
6	1.8	35.4	0.0	0.0	4.5	0.0	0.0	0.0
7	1.2	25.2	0.0	0.0	3.2	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

AM PEAK

Matrix 2								
900 - 1800	7:15	Light						
	1	2	3	4	5	6	7	8
1	0.0	39.8	2.9	1.0	2.9	1.2	0.9	0.0
2	43.3	0.0	17.0	22.3	76.0	13.2	9.9	0.0
3	5.0	61.5	0.0	0.9	3.4	0.0	0.0	0.0
4	2.3	98.5	1.4	0.0	12.4	0.0	0.0	0.0
5	2.9	129.6	1.9	5.6	0.0	4.6	3.4	0.0
6	2.5	51.2	0.0	0.0	6.5	0.0	0.0	0.0
7	1.8	36.4	0.0	0.0	4.7	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

PM PEAK 2

Matrix 1								
0 - 900	16:00	Light						
	1	2	3	4	5	6	7	8
1	0.0	23.4	10.6	1.8	3.3	4.2	2.7	0.0
2	29.4	0.0	72.1	56.2	104.4	38.9	25.2	0.0
3	3.4	28.5	0.0	3.2	5.7	0.0	0.0	0.0
4	2.1	29.8	0.9	0.0	3.7	0.0	0.0	0.0
5	9.1	131.0	3.7	22.9	0.0	6.2	4.0	0.0
6	1.9	24.5	0.0	0.0	5.3	0.0	0.0	0.0
7	1.1	15.0	0.0	0.0	3.2	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

PM PEAK

Matrix 2								
900 - 1800	16:15	Light						
	1	2	3	4	5	6	7	8
1	0.0	42.3	19.2	3.3	6.0	4.9	3.2	0.0
2	34.1	0.0	83.5	65.1	120.9	45.4	29.4	0.0
3	3.5	29.7	0.0	3.4	5.9	0.0	0.0	0.0
4	2.2	32.1	1.0	0.0	4.0	0.0	0.0	0.0
5	8.4	120.8	3.5	21.1	0.0	7.2	4.7	0.0
6	2.0	25.9	0.0	0.0	5.6	0.0	0.0	0.0
7	1.2	15.9	0.0	0.0	3.4	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

AM PEAK

Matrix 3								
1800 - 2700	7:30	Light						
	1	2	3	4	5	6	7	8
1	0.0	31.6	2.3	0.8	2.3	1.3	0.9	0.0
2	44.0	0.0	17.2	22.6	77.1	13.3	10.0	0.0
3	6.2	76.7	0.0	1.2	4.2	0.0	0.0	0.0
4	2.2	94.0	1.3	0.0	11.9	0.0	0.0	0.0
5	3.1	139.2	2.0	6.0	0.0	4.6	3.5	0.0
6	2.7	54.6	0.0	0.0	7.0	0.0	0.0	0.0
7	1.9	38.8	0.0	0.0	5.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

AM PEAK

Matrix 4								
2700 - 3600	7:45	Light						
	1	2	3	4	5	6	7	8
1	0.0	31.6	2.3	0.8	2.3	1.6	1.2	0.0
2	59.3	0.0	23.2	30.5	104.0	17.2	12.9	0.0
3	7.0	86.5	0.0	1.3	4.7	0.0	0.0	0.0
4	2.7	114.2	1.6	0.0	14.4	0.0	0.0	0.0
5	3.6	160.4	2.3	6.9	0.0	6.0	4.5	0.0
6	3.2	64.2	0.0	0.0	8.2	0.0	0.0	0.0
7	2.3	45.6	0.0	0.0	5.8	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

PM PEAK

Matrix 3								
1800 - 2700	16:30	Light						
	1	2	3	4	5	6	7	8
1	0.0	31.6	14.3	2.4	4.5	4.2	2.7	0.0
2	32.7	0.0	80.1	62.4	115.9	38.9	25.2	0.0
3	3.1	26.7	0.0	3.0	5.3	0.0	0.0	0.0
4	2.6	36.7	1.1	0.0	4.5	0.0	0.0	0.0
5	8.6	124.2	3.6	21.7	0.0	6.2	4.0	0.0
6	1.9	24.5	0.0	0.0	5.3	0.0	0.0	0.0
7	1.1	15.0	0.0	0.0	3.2	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

PM PEAK

Matrix 4								
2700 - 3600	16:45	Light						
	1	2	3	4	5	6	7	8
1	0.0	31.6	14.3	2.4	4.5	5.0	3.2	0.0
2	35.1	0.0	86.1	67.1	124.6	45.8	29.7	0.0
3	3.8	32.7	0.0	3.7	6.5	0.0	0.0	0.0
4	2.8	39.8	1.2	0.0	4.9	0.0	0.0	0.0
5	9.3	134.5	3.8	23.5	0.0	7.3	4.7	0.0
6	2.3	30.2	0.0	0.0	6.5	0.0	0.0	0.0
7	1.4	18.5	0.0	0.0	4.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

AM PEAK

Matrix 5								
3600 - 4500	8:00	Light						
	1	2	3	4	5	6	7	8
1	0.0	31.6	2.3	0.8	2.3	1.5	1.1	0.0
2	53.9	0.0	21.1	27.8	94.7	15.5	11.7	0.0
3	7.1	87.4	0.0	1.3	4.8	0.0	0.0	0.0
4	2.3	95.2	1.3	0.0	12.0	0.0	0.0	0.0
5	3.0	133.8	2.0	5.7	0.0	5.4	4.1	0.0
6	2.9	58.3	0.0	0.0	7.5	0.0	0.0	0.0
7	2.1	41.5	0.0	0.0	5.3	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

AM PEAK

Matrix 6								
4500 - 5400	8:15	Light						
	1	2	3	4	5	6	7	8
1	0.0	47.9	3.5	1.3	3.4	1.6	1.2	0.0
2	56.6	0.0	22.2	29.1	99.4	16.6	12.5	0.0
3	7.9	98.1	0.0	1.5	5.4	0.0	0.0	0.0
4	2.2	94.0	1.3	0.0	11.9	0.0	0.0	0.0
5	3.0	135.0	2.0	5.8	0.0	5.8	4.3	0.0
6	3.0	61.4	0.0	0.0	7.8	0.0	0.0	0.0
7	2.2	43.6	0.0	0.0	5.6	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

PM PEAK

Matrix 5								
3600 - 4500	17:00	Light						
	1	2	3	4	5	6	7	8
1	0.0	46.8	21.2	3.6	6.6	5.6	3.6	0.0
2	37.6	0.0	92.0	71.7	133.2	51.0	33.0	0.0
3	5.5	46.3	0.0	5.3	9.2	0.0	0.0	0.0
4	2.8	39.8	1.2	0.0	4.9	0.0	0.0	0.0
5	10.1	145.6	4.2	25.4	0.0	8.1	5.2	0.0
6	2.8	36.4	0.0	0.0	7.9	0.0	0.0	0.0
7	1.7	22.3	0.0	0.0	4.8	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

PM PEAK

Matrix 6								
4500 - 5400	17:15	Light						
	1	2	3	4	5	6	7	8
1	0.0	48.6	22.1	3.7	6.9	6.0	3.9	0.0
2	42.3	0.0	103.7	80.8	150.2	55.1	35.7	0.0
3	3.3	27.9	0.0	3.2	5.6	0.0	0.0	0.0
4	3.1	44.4	1.4	0.0	5.5	0.0	0.0	0.0
5	9.6	137.9	3.9	24.1	0.0	8.8	5.7	0.0
6	2.3	29.9	0.0	0.0	6.4	0.0	0.0	0.0
7	1.4	18.3	0.0	0.0	4.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

AM PEAK

Matrix 7								
5400 - 6300	8:30	Light						
	1	2	3	4	5	6	7	8
1	0.0	31.6	2.3	0.8	2.3	1.5	1.1	0.0
2	55.6	0.0	21.8	28.6	97.6	15.7	11.8	0.0
3	6.8	83.8	0.0	1.3	4.6	0.0	0.0	0.0
4	1.8	75.0	1.0	0.0	9.5	0.0	0.0	0.0
5	2.8	124.7	1.8	5.4	0.0	5.5	4.1	0.0
6	2.5	50.7	0.0	0.0	6.5	0.0	0.0	0.0
7	1.8	36.1	0.0	0.0	4.6	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

AM PEAK

Matrix 8								
6300 - 7200	8:45	Light						
	1	2	3	4	5	6	7	8
1	0.0	47.9	3.5	1.3	3.4	1.5	1.1	0.0
2	53.3	0.0	20.9	27.4	93.5	15.5	11.6	0.0
3	5.8	71.3	0.0	1.1	3.9	0.0	0.0	0.0
4	2.1	88.4	1.2	0.0	11.1	0.0	0.0	0.0
5	2.7	119.9	1.8	5.1	0.0	5.4	4.1	0.0
6	2.5	51.1	0.0	0.0	6.5	0.0	0.0	0.0
7	1.8	36.3	0.0	0.0	4.6	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

PM PEAK

Matrix 7								
5400 - 6300	17:30	Light						
	1	2	3	4	5	6	7	8
1	0.0	43.2	19.6	3.3	6.1	5.5	3.5	0.0
2	39.4	0.0	96.5	75.2	139.6	50.2	32.5	0.0
3	4.1	35.0	0.0	4.0	7.0	0.0	0.0	0.0
4	3.3	47.4	1.5	0.0	5.9	0.0	0.0	0.0
5	7.3	105.4	3.0	18.4	0.0	8.0	5.2	0.0
6	2.6	34.3	0.0	0.0	7.4	0.0	0.0	0.0
7	1.6	21.0	0.0	0.0	4.5	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

PM PEAK

Matrix 8								
6300 - 7200	17:45	Light						
	1	2	3	4	5	6	7	8
1	0.0	42.6	19.3	3.3	6.0	5.2	3.4	0.0
2	36.8	0.0	90.2	70.3	130.5	47.7	30.9	0.0
3	3.7	31.5	0.0	3.6	6.3	0.0	0.0	0.0
4	2.1	30.6	0.9	0.0	3.8	0.0	0.0	0.0
5	7.7	111.3	3.2	19.5	0.0	7.6	4.9	0.0
6	2.0	26.1	0.0	0.0	5.6	0.0	0.0	0.0
7	1.2	16.0	0.0	0.0	3.5	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

AM PEAK

Total Peak Hour

AM	Light Vehicles								
	1	2	3	4	5	6	7	8	Total
1	0	159	11	4	11	6	4	0	197
2	219	0	86	113	385	63	48	0	914
3	27	341	0	5	19	0	0	0	392
4	8	353	5	0	44	0	0	0	410
5	12	513	7	22	0	22	17	0	593
6	11	221	0	0	28	0	0	0	261
7	8	158	0	0	20	0	0	0	185
8	0	0	0	0	0	0	0	0	0
Total	286	1745	110	144	508	91	69	0	2952

PM PEAK

Total Peak Hour

PM	Light Vehicles								
	1	2	3	4	5	6	7	8	Total
1	0	181	82	14	26	22	14	0	340
2	156	0	382	298	554	204	132	0	1726
3	17	141	0	16	28	0	0	0	201
4	11	162	5	0	20	0	0	0	199
5	35	500	14	87	0	32	21	0	690
6	10	127	0	0	27	0	0	0	164
7	6	78	0	0	17	0	0	0	100
8	0	0	0	0	0	0	0	0	0
Total	234	1189	484	415	672	259	167	0	3420

AM PEAK

Warm up

AM	Light Vehicles								
	1	2	3	4	5	6	7	8	Total
1	0	122	9	3	9	5	4	0	151
2	174	0	68	90	306	52	39	0	729
3	22	274	0	4	15	0	0	0	315
4	9	368	5	0	46	0	0	0	429
5	12	537	8	23	0	18	14	0	612
6	10	205	0	0	26	0	0	0	242
7	7	146	0	0	19	0	0	0	172
8	0	0	0	0	0	0	0	0	0
Total	234	1652	90	120	421	75	57	0	2650

PM PEAK

Warm up

PM	Light Vehicles								
	1	2	3	4	5	6	7	8	Total
1	0	129	59	10	18	18	12	0	246
2	131	0	322	251	466	169	109	0	1448
3	14	118	0	13	23	0	0	0	168
4	10	138	4	0	17	0	0	0	170
5	35	510	15	89	0	27	17	0	694
6	8	105	0	0	23	0	0	0	136
7	5	64	0	0	14	0	0	0	83
8	0	0	0	0	0	0	0	0	0
Total	203	1065	399	363	561	214	139	0	2945

Matrix 1 AM PEAK

0 - 900	7:00	Heavy						
	1	2	3	4	5	6	7	8
1	0.0	2.4	0.2	0.1	0.2			
2	1.5	0.0	0.6	0.8	2.6			
3	0.9	11.0	0.0	0.2	0.6			
4	0.2	6.9	0.1	0.0	0.9			
5	0.1	5.6	0.1	0.3	0.0			
6								
7								
8								

Matrix 2 AM PEAK

900 - 1800	7:15	Heavy						
	1	2	3	4	5	6	7	8
1	0.0	5.1	0.4	0.1	0.4			
2	2.3	0.0	0.9	1.2	4.0			
3	1.1	13.7	0.0	0.2	0.8			
4	0.3	11.0	0.2	0.0	1.4			
5	0.2	6.8	0.1	0.3	0.0			
6								
7								
8								

Matrix 1 PM PEAK

0 - 900	16:00	Heavy						
	1	2	3	4	5	6	7	8
1	0.0	1.7	0.8	0.1	0.2			
2	1.5	0.0	4.0	3.1	5.5			
3	0.3	2.3	0.0	0.3	0.5			
4	0.1	1.2	0.0	0.0	0.1			
5	0.5	6.9	0.2	1.3	0.0			
6								
7								
8								

Matrix 2 PM PEAK

900 - 1800	16:15	Heavy						
	1	2	3	4	5	6	7	8
1	0.0	3.2	1.5	0.3	0.4			
2	1.8	0.0	4.6	3.6	6.4			
3	0.3	2.4	0.0	0.3	0.5			
4	0.1	1.3	0.0	0.0	0.2			
5	0.4	6.4	0.2	1.2	0.0			
6								
7								
8								

Matrix 3 AM PEAK

1800 - 2700	7:30	Heavy						
	1	2	3	4	5	6	7	8
1	0.0	4.1	0.3	0.1	0.3			
2	2.3	0.0	1.0	1.3	4.1			
3	1.4	17.1	0.0	0.3	0.9			
4	0.3	10.5	0.1	0.0	1.3			
5	0.2	7.3	0.1	0.3	0.0			
6								
7								
8								

Matrix 4 AM PEAK

2700 - 3600	7:45	Heavy						
	1	2	3	4	5	6	7	8
1	0.0	4.1	0.3	0.1	0.3			
2	3.1	0.0	1.3	1.7	5.5			
3	1.6	19.3	0.0	0.3	1.1			
4	0.3	12.8	0.2	0.0	1.6			
5	0.2	8.4	0.1	0.4	0.0			
6								
7								
8								

Matrix 3 PM PEAK

1800 - 2700	16:30	Heavy						
	1	2	3	4	5	6	7	8
1	0.0	2.4	1.1	0.2	0.3			
2	1.7	0.0	4.4	3.5	6.1			
3	0.2	2.1	0.0	0.2	0.4			
4	0.1	1.5	0.0	0.0	0.2			
5	0.5	6.6	0.2	1.2	0.0			
6								
7								
8								

Matrix 4 PM PEAK

2700 - 3600	16:45	Heavy						
	1	2	3	4	5	6	7	8
1	0.0	2.4	1.1	0.2	0.3			
2	1.8	0.0	4.8	3.7	6.6			
3	0.3	2.6	0.0	0.3	0.5			
4	0.1	1.6	0.0	0.0	0.2			
5	0.5	7.1	0.2	1.3	0.0			
6								
7								
8								

Matrix 5 AM PEAK

3600 - 4500	8:00	Heavy						
	1	2	3	4	5	6	7	8
1	0.0	4.1	0.3	0.1	0.3			
2	2.8	0.0	1.2	1.5	5.0			
3	1.6	19.5	0.0	0.3	1.1			
4	0.3	10.7	0.1	0.0	1.3			
5	0.2	7.0	0.1	0.3	0.0			
6								
7								
8								

Matrix 6 AM PEAK

4500 - 5400	8:15	Heavy						
	1	2	3	4	5	6	7	8
1	0.0	6.1	0.5	0.2	0.4			
2	3.0	0.0	1.2	1.6	5.2			
3	1.8	21.9	0.0	0.3	1.2			
4	0.3	10.5	0.1	0.0	1.3			
5	0.2	7.0	0.1	0.3	0.0			
6								
7								
8								

Matrix 5 PM PEAK

3600 - 4500	17:00	Heavy						
	1	2	3	4	5	6	7	8
1	0.0	3.5	1.7	0.3	0.5			
2	2.0	0.0	5.1	4.0	7.0			
3	0.4	3.7	0.0	0.4	0.7			
4	0.1	1.6	0.0	0.0	0.2			
5	0.5	7.7	0.2	1.4	0.0			
6								
7								
8								

Matrix 6 PM PEAK

4500 - 5400	17:15	Heavy						
	1	2	3	4	5	6	7	8
1	0.0	3.6	1.7	0.3	0.5			
2	2.2	0.0	5.7	4.5	7.9			
3	0.3	2.2	0.0	0.3	0.4			
4	0.1	1.8	0.1	0.0	0.2			
5	0.5	7.3	0.2	1.3	0.0			
6								
7								
8								

Matrix 7 AM PEAK

5400 - 6300	8:30	Heavy						
	1	2	3	4	5	6	7	8
1	0.0	4.1	0.3	0.1	0.3			
2	2.9	0.0	1.2	1.6	5.2			
3	1.5	18.7	0.0	0.3	1.0			
4	0.2	8.4	0.1	0.0	1.1			
5	0.1	6.5	0.1	0.3	0.0			
6								
7								
8								

Matrix 8 AM PEAK

6300 - 7200	8:45	Heavy						
	1	2	3	4	5	6	7	8
1	0.0	6.1	0.5	0.2	0.4			
2	2.8	0.0	1.2	1.5	4.9			
3	1.3	15.9	0.0	0.2	0.9			
4	0.2	9.9	0.1	0.0	1.2			
5	0.1	6.3	0.1	0.3	0.0			
6								
7								
8								

Matrix 7 PM PEAK

5400 - 6300	17:30	Heavy						
	1	2	3	4	5	6	7	8
1	0.0	3.2	1.5	0.3	0.5			
2	2.1	0.0	5.3	4.2	7.3			
3	0.3	2.8	0.0	0.3	0.6			
4	0.1	1.9	0.1	0.0	0.2			
5	0.4	5.6	0.2	1.0	0.0			
6								
7								
8								

Matrix 8 PM PEAK

6300 - 7200	17:45	Heavy						
	1	2	3	4	5	6	7	8
1	0.0	3.2	1.5	0.3	0.5			
2	1.9	0.0	5.0	3.9	6.9			
3	0.3	2.5	0.0	0.3	0.5			
4	0.1	1.2	0.0	0.0	0.2			
5	0.4	5.9	0.2	1.1	0.0			
6								
7								
8								

Appendix C Concept Design Plan

The BBO drawing, Simplicity Living Te Pūtahi Ladies Mile, SH6/Stalker Road and Lower Shotover Road Urbanisation, Concept Design Plan, 149360-00-0205, is attached.

[illegible]

PROJECT
SIX LADIES MILE
QUEENSTOWN

DRAWING

SH6 / STALKER ROAD AND LOWER
SHOTOVER ROAD URBANISATION
CONCEPT DESIGN PLAN

STATUS		PRELIMINARY	
HORIZONTAL DATE	10/10/2009	SCALE (A3)	1:1500
VERTICAL DATE	NZVD16		
DRAWING NUMBER	149360-00-0205	REVISION	-

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