Attachment B

Te Kirikiri Frankton Integrated Transport Programme Business Case

Queenstown Lakes District Council

New Zealand Transport Agency

Otago Regional Council

December 2019

GHD

WAY TO GO

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Executive Summary

Introduction

The Queenstown Lakes District Council and their project partners, the New Zealand Transport Agency and Otago Regional Council have engaged GHD and Boffa Miskell, to develop a Masterplan and Integrated Transport Programme Business Case for Te Kirikiri Frankton. These projects form part of the *Way To Go* initiative which is a collaborative partnership between these project partners.

They set out land use and transport plans for Frankton so that the area improves its liveability and accessibility and adapts to continued growth within Frankton and across the region. Both adopt a 30 year vision with the Integrated Transport Programme Business Case complimenting the land use changes proposed in the Masterplan so as Frankton develops, it can accommodate the needs of the community as well as the needs of tourists and visitors.

The simultaneous development of a Masterplan and Integrated Transport Programme Business Case represents a key step forward for integrated transport and land use planning practices in New Zealand. It also conveys the desire of project partners to work collaboratively to achieve high quality outcomes for visitors and residents of this nationally significant area.

Project Context

Frankton is a suburb of Queenstown in the Central Otago, located on the north eastern shore of Lake Wakatipu. Frankton sits in the centre of the Wakatipu Ward of Queenstown which is known as a desirable place to visit and live.

The Frankton study area is shown in Figure 1, and as displayed it is dominated by the significant natural land features of Lake Wakatipu to the west, the Kawarau River to the south, Shotover River to the east and steep hilly terrain to the north. These natural features constrain the number of access points in to and out of Frankton by land and can only be accessed by road via three points, the Kawarau Falls Bridge (from the south), the Shotover Bridge (from the east) and SH6 (from Queenstown Town Centre in the west).

Access to the study area is important as it is home to key destinations, amenities and services for the wider Queenstown Lakes District and is an unavoidable State Highway thoroughfare for through flowing traffic.

Some significant land uses in Frankton that act as key trip generators for residents and visitors include Queenstown Airport, Lakes District Hospital, Remarkables Park Primary School, Wakatipu High School, Queenstown Events Centre, the Remarkables Park and Five Mile retail precincts, and a light industrial area in the east of the study area. Queenstown Airport currently has approximately 2.3 million domestic and international passenger movements which has been steadily increasing to these levels over the past decade.

Several State Highway routes also traverse through the study area linking key destinations as follows:

- State Highway 6A (SH6A Frankton Road) provides an important east-west link between Queenstown and Frankton and carries approximately 25,600 vehicles per day
- State Highway 6 (SH6) provides a north-south link between Frankton and the southern suburbs of Queenstown including Jacks Point, Te Anau, Milford Sound and further south, Invercargill

- State Highway 6 (SH6) also provides an east-west connection between Frankton and Queenstown's eastern suburbs such as Lake Hayes Estate, Shotover Country, Arrowtown, and the major centres of Christchurch and Dunedin.

Figure 1 Frankton Masterplan and Integrated Transport PBC Study Area

Adding to the issues is the rapid visitor and resident growth that has been occurring over the past five years and is forecast to continue. The resident population of the Wakatipu Ward is expected to increase by 17,260 people (or 61%) by 2038[1]. Visitor growth numbers have also been increasing historically which is expected to continue. Queenstown Airport Corporation (QAC) has forecasted over three million passengers by 2025 and six million by 2035. This will mean in 2025, on peak days, there could be up to 2,730 passengers coming and going from the airport.[2]

These features mean Te Kirikiri Frankton acts as a traffic convergence point and a critical transport node where several routes meet, which creates conflicts between people moving through the area and those that live, work and play there. The study area is also expected to more than double its residential population in the next three decades as infill development occurs as well as providing for hotels, commercial and tourist related developments. Through the development of the Te Kirikiri Masterplan further opportunities for increased residential developments within the study area were identified and would provide a number of benefits including reducing pressure on key transport infrastructure such as the Shotover River and Kawarau River crossings.

[1] Data sources: Queenstown Lakes District Growth Projections 2018- 2048, Queenstown Lakes District Council (October 2018)

[2] Queenstown Airport (n.d), *Queenstown Airport Master Plan Options,* Queenstown Airport

Cultural Significance

Whakatipu-Wai-Māori is one of the iconic lakes of cultural and statutory significance to Kāi Tahu. The name Whakatipu-Wai-Māori first features in the Waitaha iwi oral tradition of “Kā Puna Wai Karikari o Rākaihautū” which tells how the great lakes of Te Wai Pounamu (the South Island) were dug by the tīpuna (ancestor) Rākaihautū.

Problems and Benefits of Investing

Facilitated stakeholder workshops were held in Frankton on the 28th, 29th and 30th of November 2018 to confirm the problems associated with transport in Frankton and to identify the benefits sought from future investment in the transport system.

The problems identified by stakeholders for the Frankton transport network were consistent with the issues identified in previous business cases in Queenstown. The problem statements identified were:

Problem 1: The current transport system favours travel by private vehicle that leads to severance and adversely affects inclusive access, safety, environmental sustainability, and a sense of place for Frankton. (60%)

Problem 2: Current and future land use patterns coupled with infrastructure constraints and significant growth in the movement of people and goods leads to congestion and increasing travel times for all road users. (40%)

The benefit statements identified in the investment logic map workshop were:

Benefit 1: Access to improved transport choices for people of all ages and abilities. (40%)

Benefit 2: Frankton is a safe and welcoming gateway to Queenstown and the region, hosting a unified, bustling community of businesses, residents and visitors. (35%)

Benefit 3: A transport network and system that is reliable and meets the access and movement needs of the community. (25%)

A set of investment objectives for the Frankton Integrated Transport Programme Business Case were developed to outline the specific outcomes of investing in Frankton. The investment objectives were:

1. Reduce severance, transport effects on the environment, and improve the liveability and attractiveness of Frankton
2. Improve access to and use of multi-modal transport options for people of all ages and abilities
3. Provide safe transport choices and improve safety perception
4. Improve active mode network connectivity and comfort
5. Improve transport system reliability and maintain travel times

The investment objectives have been used to assess the programme options. Other assessment criteria included those relating to landscape and visual features, the environment, social and cultural factors, as well as risk levels, achievability, economic, and constructability and technical feasibility impacts.

Te Kirikiri Frankton Masterplan Alignment

This Te Kirikiri Frankton Integrated Transport Programme Business Case has been developed in conjunction with the development of the Te Kirikiri Frankton Masterplan. The Te Kirikiri Frankton Masterplan outlines a 30-year vision for the area, and was developed through a series of facilitated workshops and ongoing engagement with project partners, key stakeholders and the local community.

The shared vision statement for the Te Kirikiri Frankton Masterplan is:

"Te Kirikiri Frankton, where our pathways, the lake and the rivers meet"

"At the heart of Te Kirikiri, Frankton is a hub that connects a bustling community of businesses, residents and visitors to Queenstown and the region. Embracing sustainable development, future generations live in harmony with the natural environment."

Masterplanning is a complex task of stitching together a range of often competing subject matters, tangible and intangible, into a comprehensive and deliverable plan. Successful masterplans are formed of multiple interrelated layers that when coordinated and implemented with land uses and supporting infrastructure can achieve the masterplan outcomes.

As part of the formulation of the Te Kirikiri Frankton Masterplan, six masterplan outcomes have been identified and developed, drawing on the Vision and Design and Planning Principles. These layers are transformational and place based outcomes that have been tested by stakeholders through workshops and have formed part of the public engagement feedback loop. They are underpinned by a set of objectives that respond to the specific opportunities and challenges within the Te Kirikiri Frankton area, as well as addressing community aspirations. The Masterplan outcomes developed include:

1. Integrating with the water's edge
2. Gateway into the district
3. Enhancing the local networks
4. Integrated urban centres
5. Living and growing in harmony with nature
6. Inclusive neighbourhoods

Programme Development and Assessment

The programmes development has leveraged of the previous work undertaken by the project partners for the Queenstown Integrated Transport Programme Business Case (2017). For this project, identification of new and refined interventions with over 150 interventions identified, and are the basis for developing the initial long list of seven programme options. These ranged from a 'Do Minimum / Planned Investments' through to programmes promoting community access and safety, public transport and active modes, mass transit and active modes, increased lane, bridge and parking capacity, to a major capital investment focus programme. These programme options were refined and assessed against the investment objectives and other MCA criterion with stakeholders to arrive at a short list of three options.

Programme options 1, 3 and 4 were shortlisted based on the workshop feedback from stakeholders, technical analysis and inputs from other related business cases. These programmes have been refined and include useful interventions from the non-short-listed long list programmes and are summarised below. The Do Minimum programme of planned investments is used as a comparator for the short list assessments.

Programme Option 1: Do Minimum / Business As Usual (Base case)

The base case or do minimum for the Frankton Integrated Transport PBC is described as planned or funded investments. This programme utilises rapid targeted interventions to respond to urgent network pressures. Therefore it is assumed all planned or funded investments will happen in the short-term (2019-2024). The do minimum programme has a focus on short-term public transport improvement activities and minor active mode improvements.

Programme Option 3: Public transport and active modes – bus prioritisation then ground based mass transit in 10 years on key routes

Programme option 3 includes all short-term investments cited in Option 1 Do Minimum, plus increased investment in public transport and active modes. Public transport interventions involve the use of bus prioritisation in the short-term, and a trackless tram operating on its own designated public transport corridor alongside State Highways 6 and 6A in the medium term (constructed within 10 years).

Programme Option 4: Mass transit (gondola) within 10 years and active modes focus

Programme option 4 incorporates all of the do minimum investments, and similar to programme option 3 builds on these with increased investment in public transport and active modes. Programme option 4 differentiates itself from option 3 in the medium and long term where the public transport investment focuses on mass transit interventions. Specifically a gondola service linking Lake Hayes Estate, Frankton and the Queenstown Town Centre that could be extended into growth areas if demand supports this in the long-term.

Recommended Programme and Financial Case

The Recommended Programme is the common elements of Programme Option 3 (trackless trams and bus network) and Programme Option 4 (gondola and bus network) with a high capacity public transport system. At the time of completion of this project the high capacity public transport system options were still under refinement and a confirmed approach not yet confirmed. Both options were deemed to meet the investment objectives for transport outcomes as well as supporting the Masterplan outcomes.

Further work is required to confirm the financial and economic viability of the preferred system as well as the timing for implementation. For the purposes of this programme business case and to reflect the transport modelling assessments undertake the year or operation of the new system is 2028 to align with population, land use and transport demand projections of the transport model.

The recommended option offers significant investment in high capacity public transport and the active modes network to improve the attractiveness and viability of these modes of transport versus private vehicle use. It is recommended that increased residential development occurs within the study area over and above what is currently modelled to support mass transit uptake.

The improvement activities of the recommended programme option are separated into three time horizons.

1. Short-term (2019- 2024)
2. Medium-term (2024- 2028)
3. Long-term (2029- 2048)

Figure 2 Recommended Option: Short-term Interventions

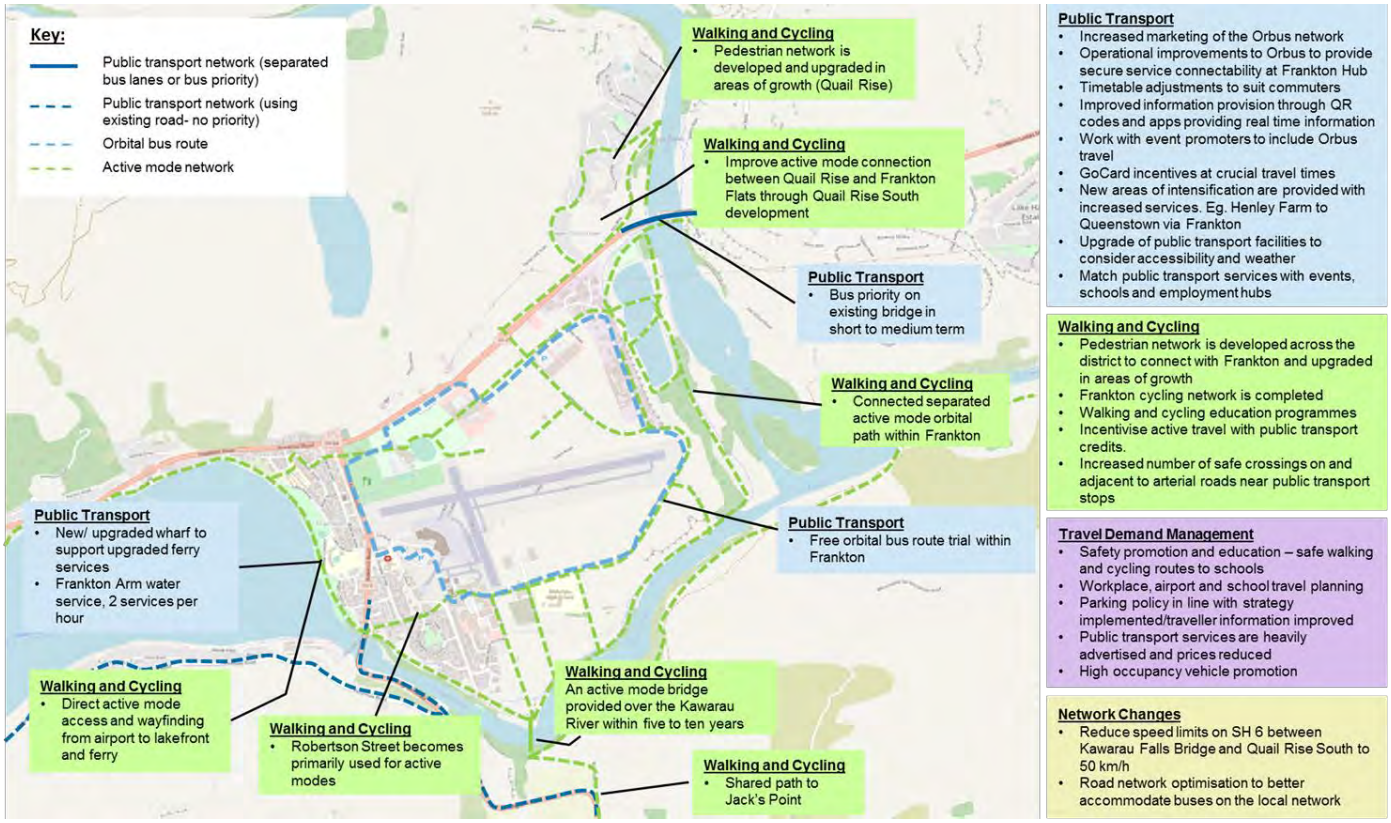


Figure 3 Recommended Option: Medium-term Interventions

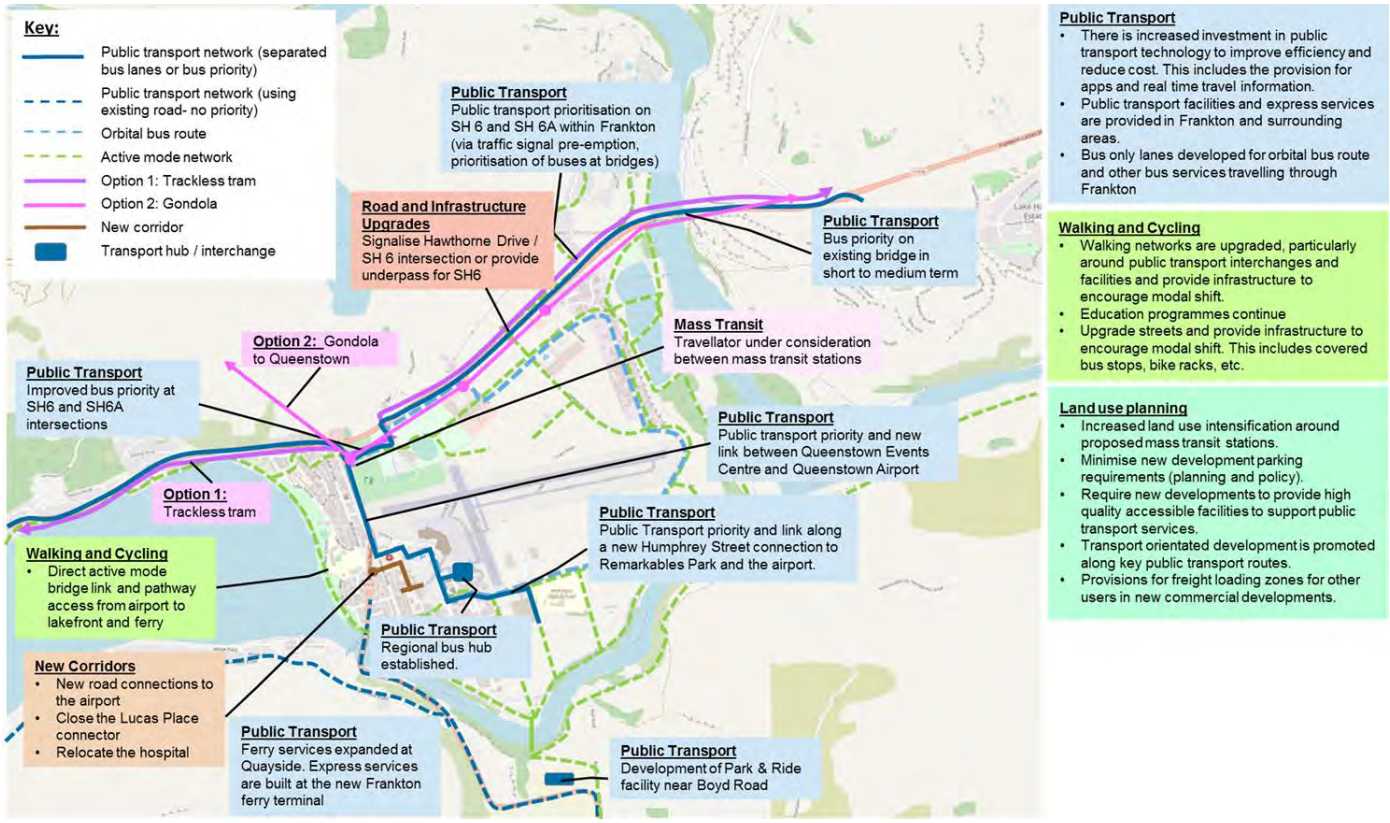
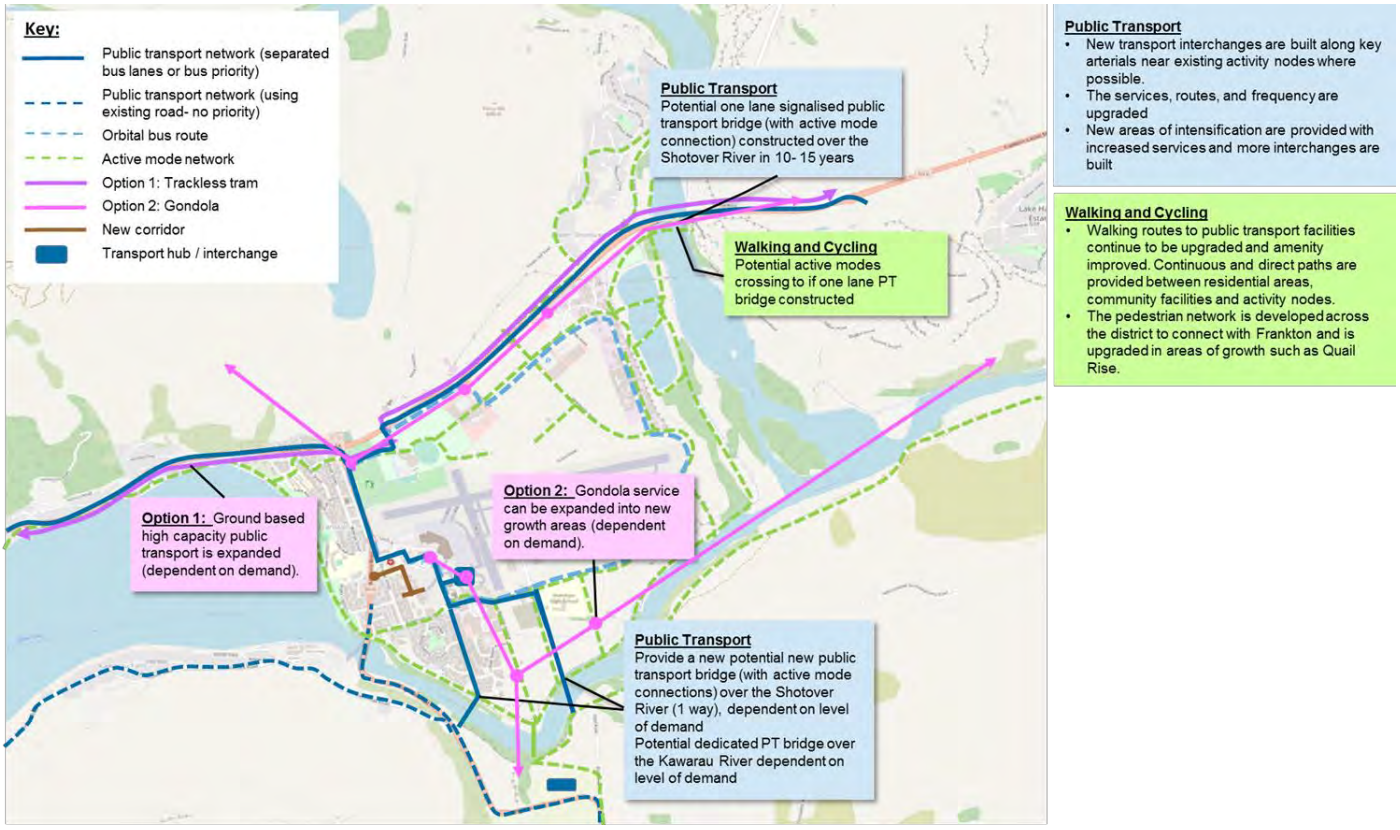


Figure 4 Recommended Option: Long-term Interventions



Assessment Profile

The Transport Agency's 2018–21 NLTP Investment Assessment Framework (IAF) was developed to give effect to Government Policy Statement (GPS) 2018. The Frankton ITPBC recommended programme was therefore assessed against the IAF 2018-21 requirements. The IAF 2018 seeks to assess a project's achievement of the GPS priorities by scoring it according to the criteria of:

- Results alignment
- Benefit Cost Appraisal (Economic Efficiency).

For the purposes of the IAF assessment Programme Options 3 and 4 were used for the Results Alignment and Programme Option 3 for the Benefit Cost Appraisal. The recommended programme for the Frankton Integrated Programme Business Case achieves IAF 2018 ratings of Very High for results alignment and low for benefit cost appraisal. The economic assessment for the programme is below a 1 Benefit Cost Ratio and does not meet the Low threshold. This result is due primarily to the high costs of the implementation of the high capacity public transport system within the project area and the benefits that were assessed to accrue within this area.

The high capacity public transport system options are currently being assessed to identify the network costs and benefits that occur across the whole Wakatipu Basin and may therefore justify investment. Other individual components within the Recommended Programme will also need to be assessed through subsequent business case investigations. The transport modelling assessment and subsequent economic assessment reflected the current residential and land use projections for the Te Kirikiri Frankton project area. The Masterplan has identified the potential for higher levels of residential and commercial opportunities

within the project area which may enable additional funding sources to support the development of the high capacity public transport network. This increased densification of activity will also improve the economic factors of this option through increased uptake of public transport resulting from densification and proximity to services as well as reduce average and overall trip lengths within the study area for all modes.

Indicative Programme Costs

The indicative programme costs for the recommended programme for Frankton is shown in Table 1. These costs do not include the Do Minimum programme (approximately $10 million in capital costs) which is currently implemented or seeking funding for implementation within the 2018-21 NLTP period.

Table 1 Recommended Programme Cost Estimates – Programme 3

Capital Cost Estimate	Total
Lower	$206,880,000
Mid	$294,240,000
Upper	$383,360,000

Benefit Cost Ratio

The benefit cost ratio for the recommended programme is 0.3 – 0.6, for the purposes of this assessment Programme Option 3 costs and benefits have been used in the assessment. Table 2 below provides a summary of the Net Present Value (NPV) of the benefits and costs for the programme. The detailed economic assessment information is provided in Appendix J.

The following table (Table 2) provides a summary of the economic results for the recommended project option compared against the Do Minimum. These results consider the costs and benefits for the Frankton study area only. Additional information is provided in the Frankton Integrated Transport Programme Business Case Economic Analysis (Appendix J)

Table 2 Summary table

Scenario	4% discount rate	6% discount rate	8% discount rate	6% with 10 yr growth delay
NPV of Benefits	$148,434,055	$89,387,773	$61,312,585	$51,549,675
NPV of Costs (lower)	$206,128,180	$141,464,949	$120,341,193	$141,464,949
NPV of Costs (Upper)	$381,966,837	$262,142,319	$222,998,839	$262,142,319
Total NPV (lower costs)	-$57,694,125	-$52,077,176	-$59,028,608	-$89,915,274
Total NPV (upper costs)	-$233,532,782	-$172,754,545	-$161,686,253	-$210,592,644
BCR (lower costs)	0.7	0.6	0.5	0.4
BCR (upper costs)	0.4	0.3	0.3	0.2

Source: PT Skim Economics – TT Priority - Frankton

The results show that in each scenario, the costs outweigh the benefits. This is predominately because benefits are not fully realised until 2028 when the major investment in high capacity public transport is completed and operational and therefore monetised benefits been discounted significantly to 2019 values.

A 10 year growth delay will impact the realisation of benefits as it will take an additional 10 years for benefits to be fully realised.

An indicative programme cost, for Programme 3, has been estimated at approximately $295 million including land acquisition, escalation and contingencies. These costs include major investments in public transport, urban realm improvements, walking and cycling infrastructure and some transport corridor realignments. The indicative cost estimate does not include the Do Minimum programme costs of approximately $10 million. The majority of these programme cost estimate includes a number of projects that have business cases currently underway for improvements in public transport, active travel and road upgrades such as the Grant Road to Kawarau Falls Bridge Detailed Business Case. The breakdown by intervention type is shown in Table 3 below.

Table 3 Indicative Recommended Option (Programme 3) Cost Estimate by Intervention Type (includes contingency and escalation)

Cost Estimates by Intervention Type	Total
Active modes	$49,600,000
Public transport	$180,000,000
TDM	$320,000
Speed management	$320,000
Multi-modal	$40,000,000
Enable active modes and urban realm improvements	$24,000,000
Total	**$294,240,000**

Management Case

The recommended programme comprises of a portfolio of projects that the Way To Go investment partners (QLDC, NZ Transport Agency and ORC) are collectively seeking to progress over the next few decades to deliver a significant transport outcomes for Te Kirikiri Frankton.

The scale of the proposed investment requires a coordinated and collaborative approach to achieve the masterplan vision and deliver the desired transport benefits. The existing partnership between QLDC, NZ Transport Agency and ORC through the *Way to Go* partnership provides a platform to integrate the coordination and future management of the recommended programme. Table 4 below provides an indicative cost allocation by investment partner (note – this is for discussion purposes).

Table 4 Indicative Recommended Programme Cost Allocations

Cost Estimate	Total
NZ Transport Agency	$182,400,000
QLDC	$83,040,000
ORC	$28,800,000
Totals	**$294,240,000**

Commercial Case

Some of the activities outlined in the recommended programme are scheduled for implementation and completion by the end of 2024 and are already subject to Business Cases as part of the *Way To Go* initiative. Other initiatives identified in this ITPBC and the Masterplan will need to be further progressed and considered for funding and investigation through the next Regional Land Transport Plan.

Procurement strategies for the implementation phases of the programme will be determined through the *Way To Go* partners and use appropriate methodologies based on scope, risk, complexity and scale. There are sufficient and appropriate local skills and capacity to deliver the majority of the programme. Specialised skills and capabilities will need to be procured for the high capacity public transport elements of the programme.

Part A – The Strategic Case

1. Introduction

The Queenstown Lakes District Council (QLDC) and their project partners, the New Zealand Transport Agency (NZ Transport Agency) and Otago Regional Council (ORC) have engaged GHD and Boffa Miskell, to develop a Masterplan and Integrated Transport Programme Business Case (ITPBC) for Te Kirikiri Frankton. The aim of this integrated project is to outline a clear vision and 30 year plan for the area.

These projects form part of the *Way To Go* initiative which is a collaborative partnership between the respective transport agencies within the Wakatipu Basin (QLDC, NZ Transport Agency and ORC). The extent of the study area for the Te Kirikiri Frankton Masterplan and ITPBC project is shown in Figure 5.

Figure 5 Te Kirikiri Frankton Masterplan and Integrated Transport PBC Study Area

1.1 Purpose

The Te Kirikiri Frankton ITPBC builds on previous work undertaken through the Queenstown Integrated Transport Programme Business Case (2017), to present the case for investment in the Te Kirikiri Frankton transport system over the next 30 years. The ITPBC seeks to explore and identify a recommended programme of responses to address the key problems facing the Te Kirikiri Frankton transport system and to achieve the Masterplan vision for the town. The remainder of this ITPBC is structured as follows:

- The remainder of Section 1 outlines the integrated approach, details the masterplan vision, summarises the work completed to date and identifies the key stakeholders who participated in this project
- Section 2 provides the strategic context for investment in the Te Kirikiri Frankton transport system
- Section 3 reconfirms the problems facing the Te Kirikiri Frankton transport system and identifies the likely benefits of addressing them, defines the investment objectives and summarises the strategic fit of the ITPBC to relevant national, regional and local strategies and plans
- Section 4 explores responses to the identified problems and benefits that contribute towards the Masterplan vision and key principles
- Section 5 tests potential responses against the investment objectives and wider criteria
- Section 6 identifies a recommended programme that is staged over the next 30 years and economic evaluation
- Sections 7-10 present the financial, commercial and management cases.

1.2 Masterplan and Business Case Approach

Masterplanning and business cases are typically progressed in two separate processes, chiefly to ensure that both meet best practice requirements and produce high quality design and business case outputs. However, for the purpose of this project an integrated process has been undertaken to provide a stronger case for future development and to enable the timely and cost-effective delivery of both projects.

The Te Kirikiri Frankton Masterplan and ITPBC has been undertaken using an innovative approach to executing the projects by using an end-to-end engagement process that stitches together the masterplanning and ITPBC work streams. A series of workshops have provided stage gates at key decision points throughout the project as a means of bringing key stakeholders, the client and consultant team together.

This ITPBC describes how the transport network can integrate with established land uses and those cited in the masterplan to address current and future challenges and assist in the achievement of the masterplan vision. Together both pieces of work complement each other and describe a recommended plan for Te Kirikiri Frankton that takes into account how the transport system and land uses (including sports, community and cultural facilities, education and healthcare) can develop to support growth in Te Kirikiri Frankton and the region over the next 30 years.

1.3 Te Kirikiri Frankton Masterplan

The Te Kirikiri Frankton Masterplan outlines a 30-year vision for the area, and was developed through a series of facilitated workshops with project partners, key stakeholders and the local community.

The shared vision statement for the Te Kirikiri Frankton Masterplan is:

"Te Kirikiri Frankton, where our pathways, the lake and the rivers meet"

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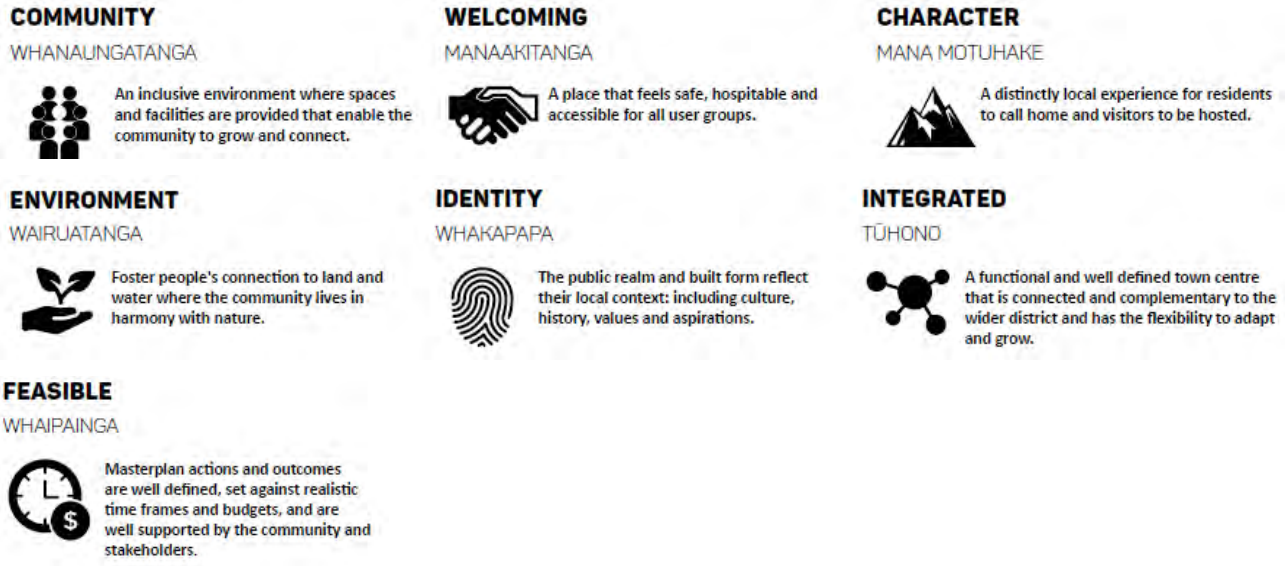
7. Integrating with the water's edge
8. Gateway into the district
9. Enhancing the local networks
10. Integrated urban centres
11. Living and growing in harmony with nature
12. Inclusive neighbourhoods

Seven masterplanning design and planning principles have been developed to support the successful implementation of the masterplan, these are shown in Figure 6 below.

Figure 6 Te Kirikiri Frankton Masterplan Design and Planning Principles



1.4 Work Completed to Date

Several transport business cases have already been undertaken for the project area as well as a community engagement exercise, as summarised below. The Te Kirikiri Frankton ITPBC should be read in conjunction with these previous business cases, which provide useful context to the study area.

1.4.1 Frankton Flats Transport Investment Strategic Case

A previous Strategic Case for *Frankton Flats Transport Investment - Improving Access and Movement Around and Through Frankton* was completed in October 2015. The Strategic Case identified two challenges facing the transport system; these were articulated in the following problem statements:

1. The transport system is not providing for growth in a timely manner resulting in the increasingly inefficient movements of goods and people.
2. The existing transport system favours cars at the expense of investment in and use of alternative modes which makes it difficult to encourage change.

1.4.2 Queenstown Integrated Transport Programme Business Case

The Queenstown Integrated Transport Programme Business Case (QITPBC) was developed by the NZ Transport Agency, Queenstown Lakes District Council and Otago Regional Council. Completed in June 2017, it identified two primary transport problems:

1. The significant growth in visitors, residents and vehicles, leads to increasing trip unreliability and worsening customer experience across the network.
2. Car dominance and associated congestion is affecting the liveability and attractiveness of the area.

The QITPBC seeks to address the transport problems through a mix of infrastructure, public transport and behaviour change measures. The recommended programme sought a number of key outcomes by 2045 including 30% alternative mode share (from 15% in 2017).

1.4.3 Frankton Masterplan: Stage 1 Community Engagement – Early Insights Summary

A four week community engagement exercise commenced in July 2018 and asked residents what would make Te Kirikiri Frankton a great place to live, work and play now and in years to come. This early engagement provided a good level of feedback from the community, including key insights such as:

- Traffic congestion and insufficient roading infrastructure was identified as Te Kirikiri Frankton's biggest challenge (right now), followed by airport growth, noise pollution and car parking overflow
- When asked *"how would you like Te Kirikiri Frankton to evolve over the next 30 years"?,* the majority of respondents identified a well-connected hub for locals with a community heart, followed by more opportunities for sport and recreational activities and a transport hub with efficient public transport solutions
- The main purpose for visiting Te Kirikiri Frankton was for shopping/retail (25 percent), followed by leisure/recreation (19 percent) and 16 percent were residents of Te Kirikiri Frankton.

Responses to the early community engagement exercise has informed the development of the Te Kirikiri Frankton ITPBC.

1.5 Partners and Key Stakeholders

The key investment partners for this project are QLDC, NZ Transport Agency and ORC, who form the *Way To Go* collaborative partnership. A Memorandum of Understanding (MoU) between all three parties to commit to working together to provide forward-thinking solutions to provide a safe and well-connected transport network.

1.5.1 Queenstown Lakes District Council

QLDC plans, constructs, operates and maintains the local transport network within the district. QLDC also develops the strategic direction for the district, including transport planning, land use development and managing the transport network. QLDC is the problem owner for the Te Kirikiri Frankton ITPBC. QLDC are part of the integrated client team through the *Way To Go* partnership.

1.5.2 NZ Transport Agency

The NZ Transport Agency is responsible for planning, investing, improving and operating the State Highway network. The NZ Transport Agency also co-invests in activities on local roads, public transport and walking and cycling through the National Land Transport Fund. The NZ Transport Agency are part of the integrated client team through the *Way To Go* partnership.

1.5.3 Otago Regional Council

ORC is responsible for planning, operating and developing the regional public transport system. The ORC are part of the integrated client team through the *Way To Go* partnership.

Representatives from wider stakeholder and interest groups also participated in the development of this PBC, as well as local residents through the early engagement campaign. A full list of stakeholders is provided at Appendix C - Case for Change.

1.6 Engagement and Communication Approach

Ongoing public engagement has been undertaken throughout the development of the Te Kirikiri Frankton Masterplan and ITPBC as part of the wider Way To Go project. The aim of the engagement process has been to enable the plan for the future of Te Kirikiri Frankton to align with the aspirations of the local community and key stakeholders, alongside responding to the constraints and opportunities within the ITPBC area and beyond.

Following intensive community and stakeholder engagement spanning almost a year, the ITPBC and Masterplan has been collaboratively formulated. They demonstrate how to integrate land use and transport to address the future needs of Te Kirikiri Frankton. The process of producing this Masterplan was underpinned by a rigorous and open engagement process, with a range of stakeholders including mana whenua, local businesses, residents, landowners and interest groups. This enabled a robust and rounded vision to be formed and a platform for ideas to be tabled, tested and crafted into a comprehensive plan. The engagement process also included two rounds of public engagement, with the feedback being incorporated into the plan.

Community engagement was initially undertaken through the Frankton Masterplan: Stage 1 Community Engagement – Early Insights Summary to understand aspirations and challenges as well as setting the scene for future engagement. According to the summary report, the main things people love about Frankton are its central location, the sunshine and scenic views, that it is convenient to get around and retains a strong local feel. The greatest challenges from locals' perspectives are travel time reliability, insufficient road

infrastructure, airport growth, noise pollution, car parking overflow, ad hoc growth of commercial areas, the loss the local feel and lack of a central community hub. The local community would like to see Frankton evolve into a well-connected hub, with a strong community heart and more opportunities for sport and recreational activities. There was also a strong emphasis on Frankton becoming a transport hub with efficient public transport.

Mana whenua were a key stakeholder in the development of the Te Kirikiri Frankton Masterplan and ITPBC. The integrated approach to preparing the Masterplan and ITPBC was set across a series of interactive workshops that grouped together the complementary elements of both of the deliverables. Mana Whenua have also been involved through correspondence and ongoing discussions with the *Way To Go* partnership and in the development of related transport projects within the Wakatipu Basin.

Given the long-term vision of the Masterplan, a series of youth engagement workshops were undertaken to capture the aspirations of younger members of the community in Te Kirikiri Frankton. The workshops were interactive sessions, with the tasks tailored to focus on gaining a greater understanding of who the young people in the community were and what their aspirations for the future of Te Kirikiri Frankton and their community were. Three schools and approximately 50 children, ages 8-14, participated in the workshops, including, Wakatipu High School, Remarkables Primary School and Queenstown Primary School.

Figure 7 Photos of stakeholder and community engagement sessions

2. Project Context

2.1 Background

Te Kirikiri Frankton is a suburb of Queenstown in Central Otago located on the north-eastern shore of Lake Wakatipu. The area is the gateway to the Wakatipu Basin and caters to a growing number of residents and visitors. It acts as a centre for commercial and industrial activity, community facilities, recreation and social services.

The town plays a key role in the region due to the location of Queenstown Airport and Wakatipu High School. It is also a growing tourist and recreational destination offering picturesque views across Lake Wakatipu, the Remarkables, Shotover River and Kawarau River.

2.2 Cultural Context

Aukaha and Te Au Marama have provided the following information. Additional cultural Context is included in the Te Kirikiri Frankton Masterplan (Appendix A).

2.2.1 Creation Narratives

Whakatipu-Wai-Māori is one of the iconic lakes of cultural and statutory significance to Kāi Tahu. The name Whakatipu-Wai-Māori first features in the Waitaha iwi oral tradition of "Kā Puna Wai Karikari o Rākaihautū" which tells how the great lakes of Te Wai Pounamu (the South Island) were dug by the tīpuna (ancestor) Rākaihautū.

Rākaihautū was the captain of the waka (ocean canoe), Uruao, which brought the Waitaha people to New Zealand on an early discovery expedition. After first arriving in Whakatū (Nelson), Rākaihautū split his party and headed southwards by an inland route, sending his son Rokohouia leading another party along the coastal margins in the Uruao. It is said that Rākaihautū used his famous kō (Polynesian digging tool) called Tū Whakaroria to perform divination rituals and subsequently form the major lakes of Te Wai Pounamu, including Whākatipu-Wai-Māori, Wānaka and Hāwea[3]. It is Rākaihautū and the Waitaha who lit the first fires of occupation within Te Wai Pounamu.

2.2.2 European Heritage

The first European to see Whakatipu wai Maori (Lake Wakatipu) was Nathaniel Chalmers in 1853, guided via the Nevis Valley by Reko, the celebrated Māori chief. Although Chalmers sighted the lake, it was another three years before Reko returned with John Chubbin, John Morrison and Malcom Macfarlane to view it from what is now Kingston.

The Remarkables first got their name in 1857, by Alexander Garvie during a reconnaissance survey of the district. The first Europeans to settle in the Wakatipu Basin were William Rees and Nicholas Von Tunzelmann. Frankton was named after Rees' wife Frances.

The district underwent a major shift during the 1860s, from a pastoral to goldmining landscape, which attracted many to the area. Rees' replaced his woolshed with the Queen's Arms Hotel to service the massive influx of people. In 1863, Government surveyors drew up townships at Queenstown and Frankton. The Otago Provincial Council decided to locate the hospital, courthouse and administrative buildings in Frankton

[3] Ngāi Tahu Claims Settlement Act, 1998.

due to its central location in the district, and Rees' had the contract to erect buildings for the police, warden's court and gold receiver. Due to backlash by Queenstown businessmen, a subsequent decision was made to move the focus back to Queenstown, and the surveyed town of Frankton was not developed. The already built courthouse was bought by the Presbyterian Church, and the Lakes District Hospital was built on its current site.

Grand plans to reveal alluvial gold by lowering river levels were first suggested in 1864, and came to life in 1926 when Kawarau Falls dam became operational. The bridge over the top enabled a connection between Queenstown and Kawarau station that was only previously accessible by water. Work on a road link along the eastern side of Lake Wakatipu to Kingston began in the same decade and was completed in 1936. Queenstown Airport was first granted its license to operate in 1935, with commercial flights becoming common in the 1950s. It was also during the 1950s that Jet boats were seen in the rivers, and in 1965 the earliest iteration of the Shotover Jet business was born. In 1947 the South Island's first commercial ski field, Coronet Peak, opened[4].

Figure 8 Photos showing early tourism and transport operator Mt Cook Company (1900's) and construction of Kawarau Bridge (1926)[5]

2.3 Land Use Context

2.3.1 Key Land Uses

The residential catchment area of Queenstown is dispersed due to the surrounding natural land features and topography and is primarily within the Wakatipu Basin due to high levels of economic activity and a lag in residential developments over the past ten years. The Te Kirikiri Frankton Masterplan, Appendix A, provides in-depth information relating to the previous, current and proposed land uses.

A number of people commute to the Wakatipu Basin from further afield including the towns of Wanaka and Cromwell. Residential developments in Frankton have historically occurred between SH6 (Kawarau Road) and Lake Wakatipu, around Frankton Junction and in the south of the study area adjacent to the Kawarau River between SH6 and Remarkables Park.

[4] Boffa Miskell. Draft Masterplan Document, September 2019. European History, pp.12.

[5] Images from: https://www.queenstown.com

Quail Rise and Remarkables Park are areas of ongoing residential and commercial development in Te Kirikiri Frankton. New townhouse dwellings are also currently under construction to the north of the airport adjacent to Grant Road, providing approximately 100 dwellings when completed[6]. There are also a number of planned and proposed residential and multi-purpose developments including those along SH6 between the Shotover River and Frankton Junction including a large development at Quail Rise South.

Ongoing residential development has also occurred to the east of Te Kirikiri Frankton in the projects area of influence such as Lake Hayes Estate and Shotover Country, and to the south including Jack's Point and Henley Downs. These developments are important as residents of these areas all make regular trips to and through Frankton to access employment, amenities and services.

Frankton is a key commercial centre within the sub-region and is the industrial hub for the Wakatipu Basin and Queenstown area. Along with Queenstown Town Centre, the commercial and industrial areas of Te Kirikiri Frankton are key trip generators between the dispersed residential suburbs, other regions and movements within Frankton which has considerable ongoing construction and developments as shown in Figure 9 below. The majority of trips from the surrounding residential suburbs and from the airport have to traverse through Te Kirikiri Frankton to access Queenstown Town Centre.

The airport, schools, healthcare facilities, recreational facilities, retail centres, and residential and light industrial areas are examples of important land uses situated in Te Kirikiri Frankton. As shown in Figure 9 these existing land uses are currently dispersed and accessibility between each site by modes other than the motor vehicle is difficult, due to a lack of connected and direct routes. It is also adversely impacted by the State Highway network and airport, which sever direct connections between the different land uses in Te Kirikiri Frankton.

2.3.2 District Plan Review

The District Plan is currently undergoing an elongated review, having been split into a number of stages. As significant elements have been only recently decided after the initiation of this PBC, opportunity to retrospectively influence them is not available. QLDC did begin a Future Development Strategy, however this has now been superseded by the Ministerial requirement for a Spatial Plan (Queenstown Lakes Spatial Plan) which is a multi-agency project led by the Department of Internal Affairs, and includes the following agencies and stakeholders:

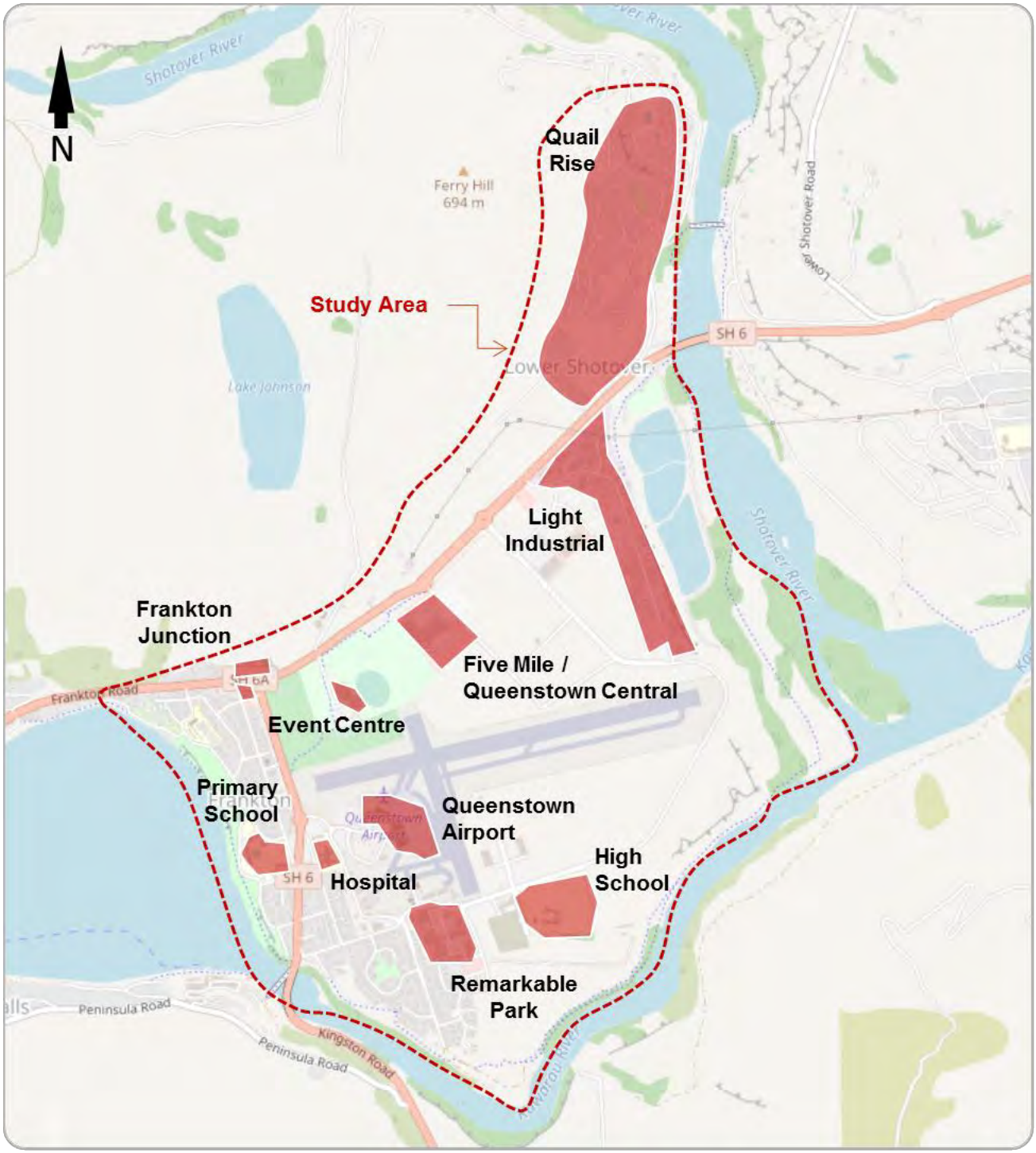
- Ministry of Housing and Urban Development
- QLDC
- Otago Regional Council
- Central Otago District Council
- Ministry of Business, Innovation and Employment
- Treasury
- Ministry of Education
- Iwi
- NZ Transport Agency.

[6] Southern Public Relations, 14 June 2018, *Remarkables Residences Development in Queenstown Launches Stage 2,* retrieved 17 Jan 2019, from https://www.southernpr.co.nz/remarkables-residences-stage-two/

This forward planning process allows consideration of the ten-year period, commensurate with the District Plan and includes matters such as the capacity for various types of development to be considered alongside infrastructure. It also provides an opportunity to consider the District's growth out to a 30-year planning horizon (2048), which aligns with the district-wide strategic transport models.

QLDC's transport planning team have fed into the relevant chapters in the latter stages of the District Plan Review, particularly the Transport Chapter, to further enable high level alignment with the GPS. Similarly, submissions have been made on the review of the QLDC Engineering Code Of Practice to promote the key GPS themes.

Figure 9 Overview of Existing Key Land Use Sites in Te Kirikiri Frankton



2.4 Geographical and Environmental Context

Te Kirikiri Frankton is located at the south-west corner of the Wakatipu Basin and northern end of the Remarkables mountain range. Te Kirikiri Frankton lies on a flat, alluvial plain that is bounded by the Frankton Arm of Lake Wakatipu and Kimiākau/Shotover and Ōterotu/Kawarau Rivers. It is the gateway into the Central Otago and Southern Lakes areas, due to the presence of Queenstown Airport and its location on State Highway 6.

The area of influence beyond Te Kirikiri Frankton has three arms that extend south west to Queenstown; north east into Shotover Country and Lake Hayes Estate; and southwards to Kelvin Heights, Hanley's Farm and Jacks Point. These incorporate a significant area of land that in a large part is also undergoing change and has strong interdependencies with the ITPBC area. There are additional influences to the transport and land uses within Te Kirikiri Frankton from inter-regional movements from the West Coast, Canterbury, Southland and Otago.

Figure 10 includes most of the Te Kirikiri Frankton study area and surrounds as viewed from the south-east[7]. The topography of Te Kirikiri Frankton is predominantly flat and the town is bordered by Lake Wakatipu to the west, the Kawarau River to the south, the Shotover River to the east and steep hilly terrain to the north.

Figure 10 Te Kirikiri Frankton Landscape[8]

[7] Note: photograph taken from south-east of Frankton, outside of study area

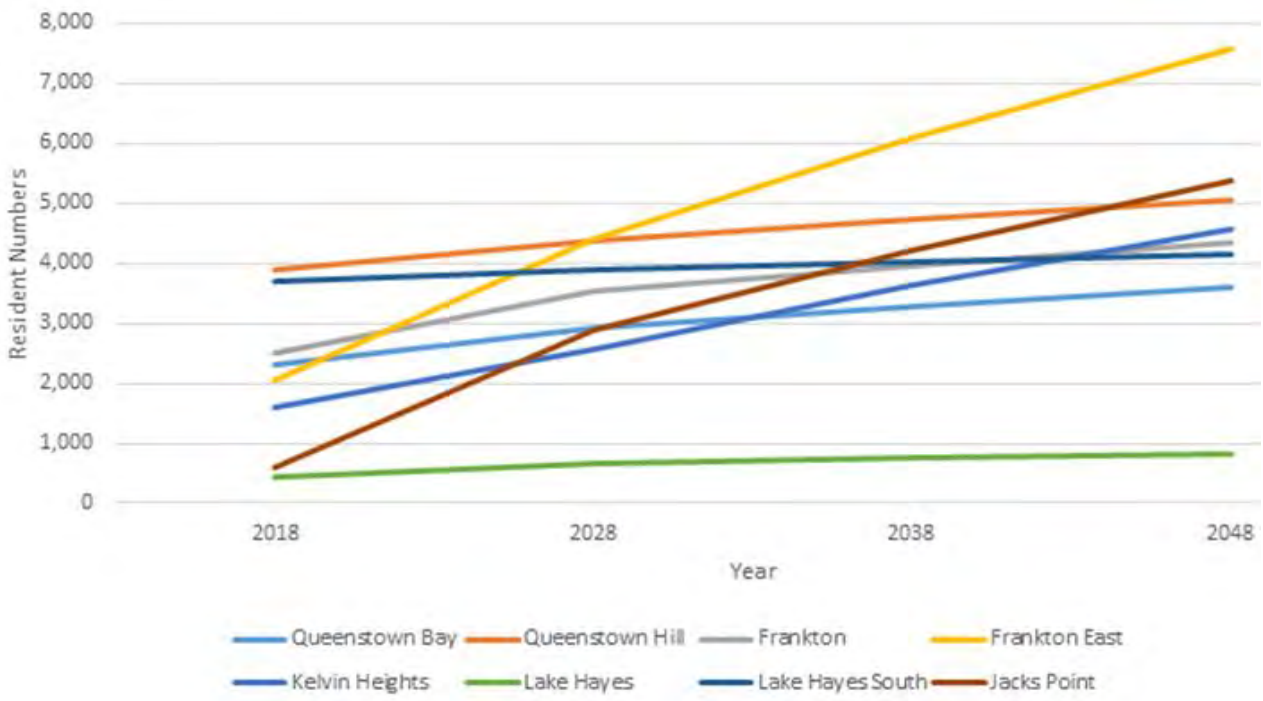
[8] Sourced from QLDC Nov 2018, *Existing and future land use context, growth presentation,* QLDC.

2.5 Demographics

2.5.1 Population Projections

Te Kirikiri Frankton has a growing population largely driven by ongoing activity in the tourism sector, which has resulted in an increase in the number of people living, working and visiting the district. Te Kirikiri Frankton's population was 2,466 people or 8.7 percent of the Queenstown Lakes District's population at the time of the 2013 Census. This population has risen to approximately 5,000 people as at 2018[9] based on the areas of Frankton and Frankton East that is primarily within the Te Kirikiri Frankton study area and is shown in Figure 11 below.

Figure 11 Queenstown Lakes District Council Projected Population Growth 2018 – 2048[10]



The projected increase in both resident and visitor population for the Wakatipu Ward area and Te Kirikiri Frankton between 2018, 2028 and 2038 is shown in Table 5 below.

Table 5 Wakatipu Ward and Frankton Growth Estimates[11]

Population and Visitor Projections	2018	2028	2048
Wakatipu Ward			
Residential population	27,180	38,100	44,440
Total visits (average day)	16,920	21,360	24,440
Total visits (peak day)	44,850	56,760	65,650
Average daily population*	44,100	59,460	68,880

[9] Data source: Queenstown Lakes District Growth Projections 2018- 2048, Queenstown Lakes District Council (October 2018)

[10] Data source: Queenstown Lakes District Growth Projections 2018- 2048, Queenstown Lakes District Council (October 2018)

[11] Data sources: Queenstown Lakes District Growth Projections 2018- 2048, Queenstown Lakes District Council (October 2018)

Population and Visitor Projections	2018	2028	2048
Peak day population**	72,030	94,860	110,090
Frankton / Frankton East			
Residential population	4,560	7,960	10,050
Total visits (average day)	1,410	2,000	2,420
Total visits (peak day)	4,500	6,710	8,380
Average daily population*	5,970	9,960	12,470
Peak day population**	9,060	14,670	18,430

* Equivalent to residential population and average daily visits
** Equivalent to residential population and peak daily visits

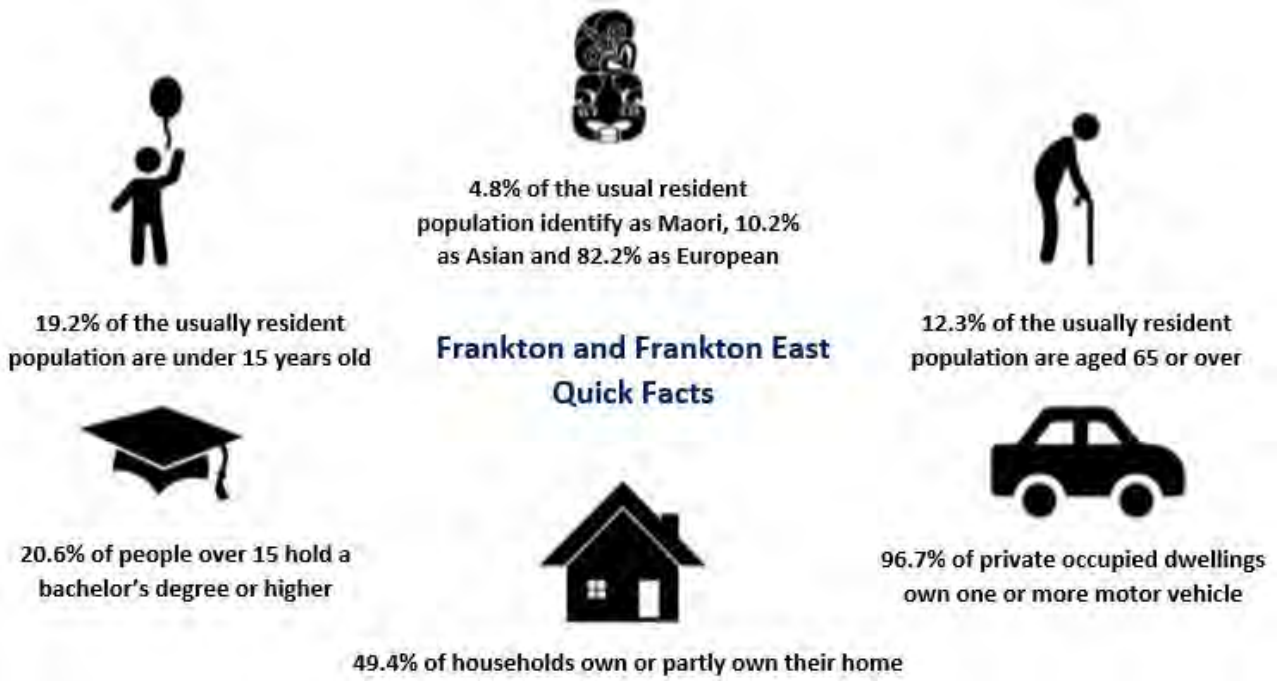
The data indicates that the residential population for the Wakatipu Ward is expected to increase from 27,180 in 2018 to 38,100 in 2028 (an increase of 40 percent). Average daily visits over the same time also increases but by a lesser degree (a 26 percent increase). This shows an increasing preference for people to permanently relocating to the region as opposed to visiting.

2.5.2 Population Profile

The combined median age of the Frankton and Frankton East census area units at the time of the 2013 Census was 33.6 years of age, compared to 36.4 years for the wider Queenstown Lakes District. A snapshot of the demographic profile of the Frankton and Frankton East census area units is provided in

Figure 12.

Figure 12 Census 2013 Quick Facts



There are three schools located in the Te Kirikiri Frankton area, these include:

- Wakatipu High School – A secondary school for children aged 13-18+ years, with a total school roll of 950 students as of 1 July 2018[12]
- Remarkables Primary School – A full primary school for children aged 5-13 years, with a total school roll of 592 students as of 1 July 2018
- Kingsview School – A full primary school for children aged 5-13 years, with a total school roll of 51 students as of 1 July 2018.

Given the high number of students in the Te Kirikiri Frankton area, a key focus of this ITPBC is to improve the accessibility between the schools, commercial, leisure and residential areas, particularly for active modes and by public transport.

2.5.3 Visitor Activity

The estimated peak day population (Queenstown Lakes District) has increased from 102,448 people in 2015 to 118,801 people in 2018[13]. Figure 11 shows the rate of residential population growth experienced in the Queenstown Lakes District. It should also be noted that in 2018 daily visits increased the average daily population of the Wakatipu Ward area by 62 percent with the peak day population reaching 72,030 (visitor peak periods are between December and January). This is almost triple the residential population within the Wakatipu Ward. Te Kirikiri Frankton shows a similar trend, however, daily visits represent only 38 percent of the average daily population in 2018. The peak period daily visits double the population of Te Kirikiri Frankton.

It is important to recognise the difference between residential and visitor populations as they fluctuate drastically between off and on-peak visitor periods. It is also important to note that residents will have very different transport and land use needs when compared against visitors. This is further explored in section 3.2.1.

2.6 Economic Context

Between 2013 and 2017, Gross Domestic Product (GDP) growth averaged 7.94 percent per annum in Queenstown and the Wakatipu Basin which was more than double the national GDP growth over the same period, which was recorded as 3.14 percent per annum[14]. This highlights the importance of the area to the regions and national economy.

The Queenstown area is regarded as one of New Zealand's premier visitor destinations. As such, industries related to tourism contribute heavily to the areas total GDP. The area's largest industry (by GDP value) in 2017 was the Accommodation and Food Services industry, which contributed $179.7 million (or 12.6 percent) to Queenstown and the Wakatipu Basin's $1,425.1 million total GDP[15]. Transport forms a key function for the local economy and provides access to the goods and services that the tourism industries requires.

[12] Data sourced from: https://www.educationcounts.govt.nz/find-school/schools?district=70&region=14 (viewed September 2019)

[13] QLDC, Oct 2018. *Final QLDC Growth Projections 2018 - 2048.*

[14] Infometrics, 2017, *'Economic Growth- GDP Growth', Queenstown and Wakatipu Basin Economic Profile,* retrieved 14 Jan 2019, from https://ecoprofile.infometrics.co.nz/Queenstown%20and%20Wakatipu%20Basin/Gdp/Growth

[15] Ibid.

2.7 Transport Context

Te Kirikiri Frankton has been a convergence point for the movement of people and goods since the times of early Maori history. Frankton Junction was since early European settlement has been where people have lived, traded and met from across the region and South Island.

Frankton is a critical transport node where several routes meet, which in recent times because of rapid economic and tourist growth has created conflicts between people moving through the area, and those that live, work and play there. These issues are compounded by the natural geography of mountains, lakes and rivers, which limit the number of viable alternatives and opportunities for transport routes.

As shown in Figure 13 below, the roading network includes several river crossings, one over the Kawarau River to the south of Te Kirikiri Frankton, and another crossing the Shotover River to the east. The Kawarau Falls Bridge has a theoretical vehicle capacity of 1,900 veh/h (each way), while the Shotover Bridge theoretical capacity is 1,600 veh/h (each way)[16], which demand has already exceeded. A heritage bridge for pedestrians and cyclists crosses the Kawarau River upstream from the State Highway 6 Kawarau River crossing.

Figure 13 shows the road network and the annual average daily traffic movements on key corridors. The figures shown in this report are to the end of 2017 and are consistent with the Queenstown-Lakes District Transportation Model and assumptions used for the economic assessment.

Data sourced from NZ Transport Agency Telemetry Site 90 on State Highway 6A indicates annual average daily traffic volumes on this corridor have increased from 18,823 vehicles per day in 2013 to 25,636 in 2017. This equates to 36 percent growth or an average annual growth rate of 7 percent during this five-year period[17]. These growth figures and projections have been used in all of the Way To Go projects and related transport modelling, these projections also underpin the economic assessment undertaken for this ITPBC.

Several State Highway routes traverse through the study area as follows:

- State Highway 6A (SH6A Frankton Road) provides an important east-west link between Queenstown and Te Kirikiri Frankton and carries approximately 25,600 vehicles per day
- State Highway 6 (SH6) provides a north-south link between Te Kirikiri Frankton and the southern suburbs of Queenstown including Jacks Point, and road link to Kingston, Te Anau, Milford Sound and Invercargill
- State Highway 6 (SH6) also provides an east-west connection between Te Kirikiri Frankton and Queenstown's eastern suburbs such as Lake Hayes Estate, Shotover Country, Arrowtown, and further afield access to the major South Island cities of Dunedin, Christchurch and Dunedin.

[16] WSP Opus, 2018. Ladies Mile HIF Integrated Transport Assessment, *4.1.4 Corridor Capacity,* Page 29.

Kawarau Fall Bridge Capacity information sourced from QLDC via email 27/05/2019.

[17] NZTA, 2017. National Telemetry Site Traffic Profile, *State Highway 6a, FRANKTON – Telemetry Site 90.*

Figure 13 Transport Networks and Daily Traffic Count Movements within Te Kirikiri Frankton[18]

2.7.1 Public Transport

There are four bus services currently operating in Queenstown. These bus services are shown in Table 6 and a route map is provided in Appendix C - Case for Change.

Table 6 Queenstown Bus Services[19]

Route Number	Service	Peak Hour Frequency
1	Fernhill to Remarkables Park / Remarkables Park to Fernhill	15 minutes
2	Arthurs Point to Arrowtown / Arrowtown to Arthurs Point	30 minutes
3	Kelvin Heights to Frankton Flats / Frankton Flats to Kelvin Heights	60 minutes
4	Lake Hayes Estate to Jacks Point / Jacks Point to Lake Hayes Estate	30 minutes

[18] State Highway AADT 2017 traffic volumes sourced from TMS, and turning volumes based off AADT 2017. Local road traffic volumes sourced from RAMM via Mobileroad.

[19] Source: https://www.orc.govt.nz/public-transport/queenstown-buses

All four bus services stop at the Frankton Hub (adjacent to SH6 to the south of Gray Street) and connect Te Kirikiri Frankton with the surrounding residential suburbs via the Shotover Bridge or Kawarau Bridge, which have been identified as 'pinch points' that result in delay to bus services due to general traffic congestion. The frequency of services and route origins and destinations are currently being reviewed. It is proposed that there are more frequent services for Kelvin Heights, Arrowtown, Lake Hayes Estate and Shotover Country. There is also a desire to make the services more direct, reducing the need for transfers with the intent of increasing patronage from areas already serviced.

2.7.2 Active Modes

There are two separated active mode routes in the Te Kirikiri Frankton study area. These are the Frankton Track and the Twin Rivers Trail. The Frankton Track enters Te Kirikiri Frankton adjacent to SH6A before continuing south along the Frankton Arm lakefront to the west of the study area. The track then crosses the river via the Kawarau Falls heritage bridge to the south of the study area and provides access to residential developments including Kelvin Heights. The track connects the key activity centres of Queenstown Town Centre, Te Kirikiri Frankton and Kelvin Heights.

The Twin Rivers Trail starts at the Kawarau Falls Bridge and run parallel to the northern side of the Kawarau Falls River until its intersection with the Shotover River. The trail then travels north, on the western side of the Shotover River past State Highway 6, before exiting Te Kirikiri Frankton via the Old Lower Shotover Bridge. The Twin Rivers Trail connects the south and east of Te Kirikiri Frankton, and provides access to the residential suburb of Lake Hayes Estate.

The existing active mode trails are shown in the map provided in Appendix C - Case for Change.

2.8 Concurrent Transport Studies

There are a number of parallel business cases under development in the Queenstown Lakes District that have been considered through the development of the Te Kirikiri Frankton ITPBC. A transport model update is also underway and will be a common input in the development and testing of each of the business cases detailed in Table 7.

Table 7 Concurrent Transport Studies[20].

Concurrent transport studies	
Queenstown Town Centre Detailed Business Case (In Progress)	This business case is focussed on the Queenstown Town Centre. This will build upon the interventions identified in the Queenstown Town Centre Programme Business Case (PBC) and Indicative Business Case (IBC). The options being developed and evaluated include: • Optimisation of the existing transport network, including the role of technology and supporting network management infrastructure • Testing of the QLDC parking strategy and the level of parking infrastructure (spaces and management) required to deliver the wider transport system outcomes sought (including supporting ITS etc.) • Network operation items including ITS and other management interventions

[20] Way to Go, 2019. Wakatipu Active Travel Network Single Stage Business Case, *1.5 Parallel Projects, Table 1, Pp 19.* Queenstown Lake District Council.

Concurrent transport studies	
	• Required public transport services and interchange infrastructure for bus and ferry service • Development of the arterials.
Frankton to Queenstown Single Stage Business Case (In Progress)	This business case is focussed on SH6A from SH6 through to Ballarat Street. This will build upon the interventions identified in the Queenstown Integrated Transport PBC, which are being developed and evaluated further to define a preferred option, including: • Increased capacity of SH6A (4 or 3 lanes) • Localised widening • Bus priority and supporting measures (e.g. signal prioritisation) • Intersection improvements. The Te Kirikiri Frankton ITPBC has considered the proposed mass transit options between Frankton and Queenstown and will also need to consider connections to such infrastructure within the study area. Without appropriate connections, there could be a reduced uptake of the proposed facilities.
Wakatipu Active Travel Network Single Stage Business Case	This single stage business case seeks to identify active travel network connections and improvements in the Wakatipu Basin. It is focussed on the two main urban centres of Queenstown and Frankton, and will identify improvements to primary and secondary active mode routes in the Wakatipu Basin[21].
Grant Road to Kawarau Falls Bridge Detailed Business Case (In Progress)	This DBC is focussed on improving traffic flows on SH6 between Grant Road and the Kawarau Falls Bridge and developing a preferred option for achieving better connectivity, whilst improving the network for public transport, walking and cycling. The connectivity across the river and connections between the main transport routes within Frankton is an important consideration as part of this PBC.
Lake Wakatipu Public Water Ferry Service Detailed Business Case	This business case is focussed on the Lake Wakatipu public water ferry service and will determine the viability of a ferry service to attract commercial operators and a potentially subsidised service. The water ferry is among several options being considered to provide improved travel choices for users, and form part of the wider programme that looks to reduce reliance on private vehicles. This project will also consider the potential connections.
Wanaka Masterplan and Integrated Transport Programme Business Case	The Wanaka Masterplan will build upon previous work to identify a vision for Wanaka Town Centre with a 30 year planning horizon. The focus of the Wanaka business case will be to respond to the problems and opportunities identified in the Strategic Case, and support the changes identified in the Masterplan[22].
Queenstown Parking Strategy	A Parking Strategy is currently being prepared for Queenstown town centre outlining a recommended approach to address parking-related issues and contribute to a more balanced transport system. The management of parking

[21] Rationale, July 2018, *Queenstown Lakes District Council Frankton Masterplan: Draft Establishment Report,* Queenstown, Queenstown Lakes District Council.

[22] QLDC, 2018, *'4.3 Wanaka Town Centre Masterplan' and 'Wanaka Integrated Transport Programme Business Case', Request for Proposal: Wanaka and Frankton Masterplan Services,* pp 10-11, Queenstown, Queenstown Lakes District Council.

Concurrent transport studies	
	within Queenstown has important implications for development and investment in across the Wakatipu Basin by providing additional deterrents for single occupant vehicle trips and in effect providing incentives for public transport and active travel users.

3. Strategic Assessment

The Strategic Assessment outlines the context for investment and case for change and provides evidence to support two identified problems that unless addressed, will act to constrain the ongoing growth of the area and, impact quality of life and liveability. It also outlines the benefits of addressing these problems.

The investment objectives are also outlined in this section along with an assessment of strategic fit with relevant national, regional and local strategies, plans and policies.

This section and additional information contained in Appendix C - Case for Change, expands on the Frankton Flats Strategic Case (2015) and the Queenstown Integrated Transport PBC (2017). These preceding reports are consistent in the evidence and approach outline in the Te Kirikiri Frankton Masterplan and ITPBC.

3.1 Defining the Problems

A series of facilitated stakeholder workshops were held in Te Kirikiri Frankton on the 28th, 29th and 30th of November 2018. Representatives from QLDC, NZ Transport Agency, ORC and key stakeholders participated in the workshops. A list of the stakeholder organisations who participated in the workshop is provided in Appendix C - Case for Change.

The aim of the workshops was to develop a Masterplan Vision, a Network Operating Framework and to confirm the current and likely future problems associated with transport in Te Kirikiri Frankton. It also identified the benefits sought from future investment in the transport system and changes to the areas land uses. Following this, data collection and supporting evidence was collated to provide greater clarity around the scale and significance of the problems. In addition targeted one on one meetings were held with key land owners and stakeholders to better understand the cause and effect of the problems, as well as capturing future development plans that could influence the ITPBC.

The following section provides an overview of the evidence that supports the scale and significance of the problems identified. The problem statements outlined below have been refined over the course of this project with stakeholders and the *Way To Go* partners.

3.2 Problem Statement One

The current transport system favours travel by private vehicle that leads to severance and adversely affects inclusive access, safety, environmental sustainability, and a sense of place for Frankton.

60% weighting

3.2.1 Evidence of the Problem - Current Transport System

The current transport system within Te Kirikiri Frankton favours travel by private vehicle over other modes. This is evident through a lack of connected and separated walking and cycling infrastructure and a lack of public transport prioritisation. The combination of dispersed residential land use patterns in the Wakatipu Basin and the location of key services in Te Kirikiri Frankton and Queenstown town centre also contribute to a reliance on travel by private vehicle. This problem is exacerbated by a lack of accessible alternative transport options with comparable journey times for travel in the wider region.

The development of land in Te Kirikiri Frankton has not been coordinated from an active travel or public transport perspective. This has resulted in transport severance, most notably for people walking or cycling to access key destinations in Te Kirikiri Frankton. There is a good network of off-road active mode trails across the Wakatipu Basin that connect to and through Te Kirikiri Frankton, however there is less provision for commuters looking to utilise active travel on a regular basis. There is also a lack of on-road space for active commuter connections, particularly with regard to the Shotover Bridge. Currently there are only two dedicated crossing points for pedestrians on State Highway 6, that is a 4 kilometre distance. This lack of safe and appropriate standard crossings causes severance for the local community and reduces the level of safety for pedestrians and cyclists, leading to poor uptake of active modes.

Public transport prioritisation is not currently provided within the study area. Existing bus services operate on the same corridors as general traffic and experience the same levels of congestion at key locations such as the State Highway 6 and 6A intersection and the Shotover Bridge. The bus hub in Te Kirikiri Frankton is used by a range of bus services, but it is not well connected to the major attractions in Te Kirikiri Frankton and is only within walking distance of a small residential catchment. The linear development pattern based around low-density development has reinforced the car centric design of the Te Kirikiri Frankton area. Public transport services operate on a hub and spoke system, which means for certain trips passengers are required to transfer to reach their destination. This bus to bus transfer results in increased journey times for users and reduces the attractiveness of public transport for some trips. Journeys that require transfers have lower uptake than those with end to end journeys.

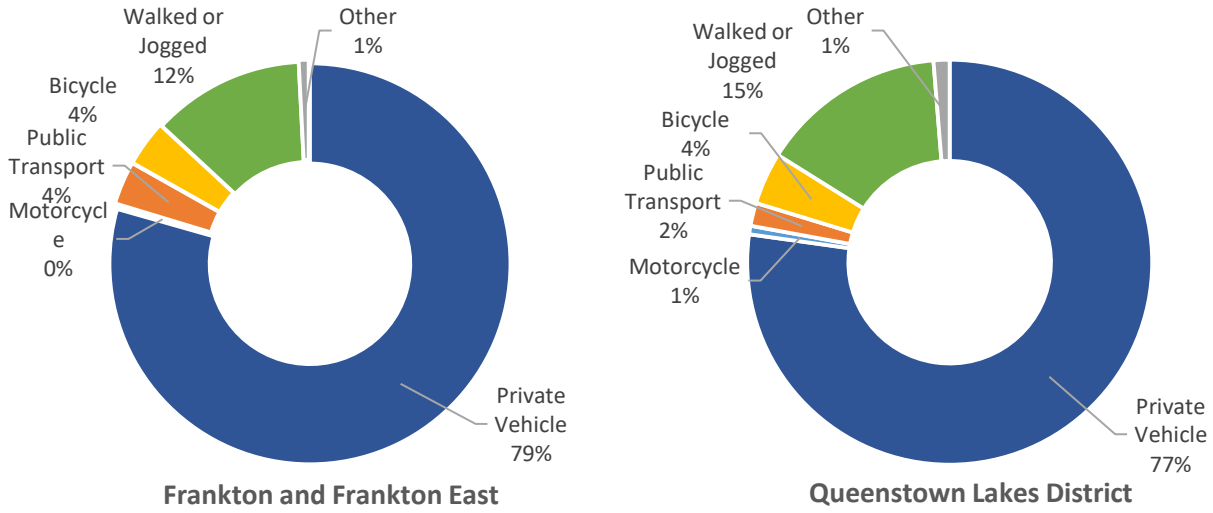
Commuter Impacts

A summary of journey to work data from the 2013 Census is outlined in Figure 14. The data shows that 79 percent of Te Kirikiri Frankton residents and 77 percent of Queenstown Lakes District residents, who travelled to work on Census day, did so by private vehicle. In comparison only 4 percent of residents travelled to work by public transport on Census day 2013[23]. However, following the launch of the Orbus network in November 2017, there has been steady growth in patronage (64 percent) compared to 2017/18. Because it is a new network, passenger targets in Queenstown for 2018/19 were set against calendar year 2017, with a 182 percent increase this year exceeding the 105 percent target. Orbus carried nearly 1.5 million in Queenstown in the last year, which indicates the demand for high quality public transport services in the Wakatipu Basin[24]. Bus user satisfaction has also increased following the launch of Orbus, with a survey showing that overall passenger satisfaction was at 97 percent as of June 2019.

[23] Statistics NZ 2018, *Census 2013, Main means of travel to work by area unit*

[24] https://www.orc.govt.nz/news-and-events/news-and-media-releases/2019/august/bus-passenger-numbers-at-an-all-time-high-in-dunedin-and-queenstown

Figure 14 Journey to Work Census Data 2013[25]



A review of school-based trips shows that 60 percent of children travelled to school by private vehicle at the time of the 2013 Census. These trips create additional pressure on the transport system during peak hours, particular near Remarkables Primary School.

The Queenstown Lakes District is experiencing significant growth, with the resident population projected to nearly double between 2018 and 2048. The ongoing growth in both resident and visitor numbers is placing sustained pressure on existing infrastructure, including the transport network. As a result of population growth over recent years there has been an increase in commuting trips between key settlements in Te Kirikiri Frankton and Queenstown and the major employment hubs[26]. As summarised in Table 8 there has been a 31 percent increase in the number of commuter trips to Te Kirikiri Frankton between 2006 and 2013, which equates to an additional 174 trips.

Table 8 Commuting Trips to, from and within Te Kirikiri Frankton

Commuting type	2006	2013	% Change
Live and work in area unit	264	261	-1.1%
Commute out	570	660	15.8%
Commute in	564	738	30.9%
Total people working in area unit	828	999	20.7%

Population growth forecasts from Queenstown Lakes District Council indicate significant residential growth has occurred since 2013. Therefore it can be assumed that the number of trips to and from the Te Kirikiri Frankton area has increased significantly since the construction and completion of commercial and retail developments such as Queenstown Central, Five Mile and Remarkables Park.

A review of the number of commuter trips from nearby Queenstown Bay and Queenstown Hill out of these areas between 2006 and 2013 shows a 33 percent increase or an additional 486 daily commuter trips. Trips

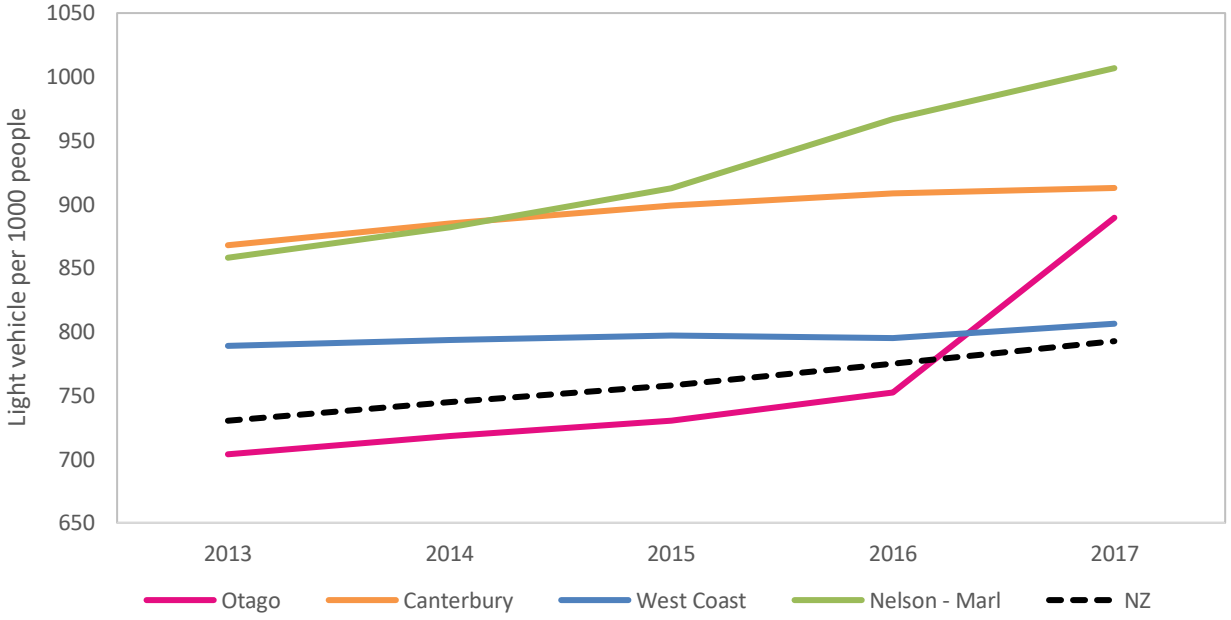
[25] Statistics NZ 2018, *Census 2013, Main means of travel to work by area unit*

[26] https://www.stats.govt.nz/tools/commuter-view

originating from these suburbs are likely to pass through the Te Kirikiri Frankton area to travel to the major employment centres in Te Kirikiri Frankton and Queenstown.

Data on car ownership shows that in 2017 the light vehicle ownership rate per capita for the Otago region was 0.95. This was the third highest ownership rate by region in New Zealand, behind the Nelson-Tasman-Marlborough Region (1.01) and Canterbury Region.[27] Light vehicle ownership per capita in the Otago Region increased by 53 percent between 2001 and 2017, and more recent data shows an 18 percent increase in the ownership rate per capita between 2016 and 2017[28], which was the largest growth in light vehicle ownership of all sixteen New Zealand regions for this time (see Figure 15). This ownership reflects poor transport options, growth in residential dwellings on the fringes and increasing incomes.

Figure 15 Light Vehicle Ownership per 1000 People by Region



Visitor Impacts

As discussed in section 2.5, during peak visitor periods, the daily population of Te Kirikiri Frankton can double which unlocks a number of other transport needs and demands. On average one third of visitors landing at Queenstown Airport will rent a car. In 2017, there were 985,000 international and domestic arrivals at Queenstown Airport meaning approximately 213,000 vehicles were rented in that year[29].

Queenstown airport provides several travel options for tourists and visitors to local destinations. Rental car companies, shuttle buses and taxi ranks are conveniently located adjacent to the airport terminal. Orbus route number 1 also provides a direct service between Fernhill, Queenstown, the airport and Remarkables Park that operates on a 15 minute frequency between 6.00 am and 7.00 pm (30 minute frequency between 7.00 pm and 12.00 am). The airport realises the need to cater for future transport needs to and from the airport. Currently one third of passengers leave in rental cars which is significantly higher than other airport

[27] https://www.transport.govt.nz/mot-resources/transport-dashboard/2-road-transport/rd027-vehicle-ownership-per-capita/d028-vehicle-ownership-per-capita-by-region/

[28] Ministry of Transport 2018, *'Light fleet regional ownership', Sheet 1.5b 2017 New Zealand Vehicle Fleet Annual Statistics*, retrieved 21 Dec 2018, from http://www.transport.govt.nz/mot-resources/vehicle-fleet-statistics/

[29] NZ.Stat – International Visitor Survey, Domestic Visitor survey http://nzdotstat.stats.govt.nz/wbos/Index.aspx#

across New Zealand, generally this is about 10 percent. Another third of passengers leave in taxis and a comparatively smaller portion use private or public bus services. This evidence suggests visitors on holiday are likely to be less concerned about the price of local travel, prioritising ease of travel, convenience and access. Private vehicles are therefore the predominant form of travel for the majority of visitors who are also travelling to destinations further afield such as Milford Sound, Wanaka and Dunedin.

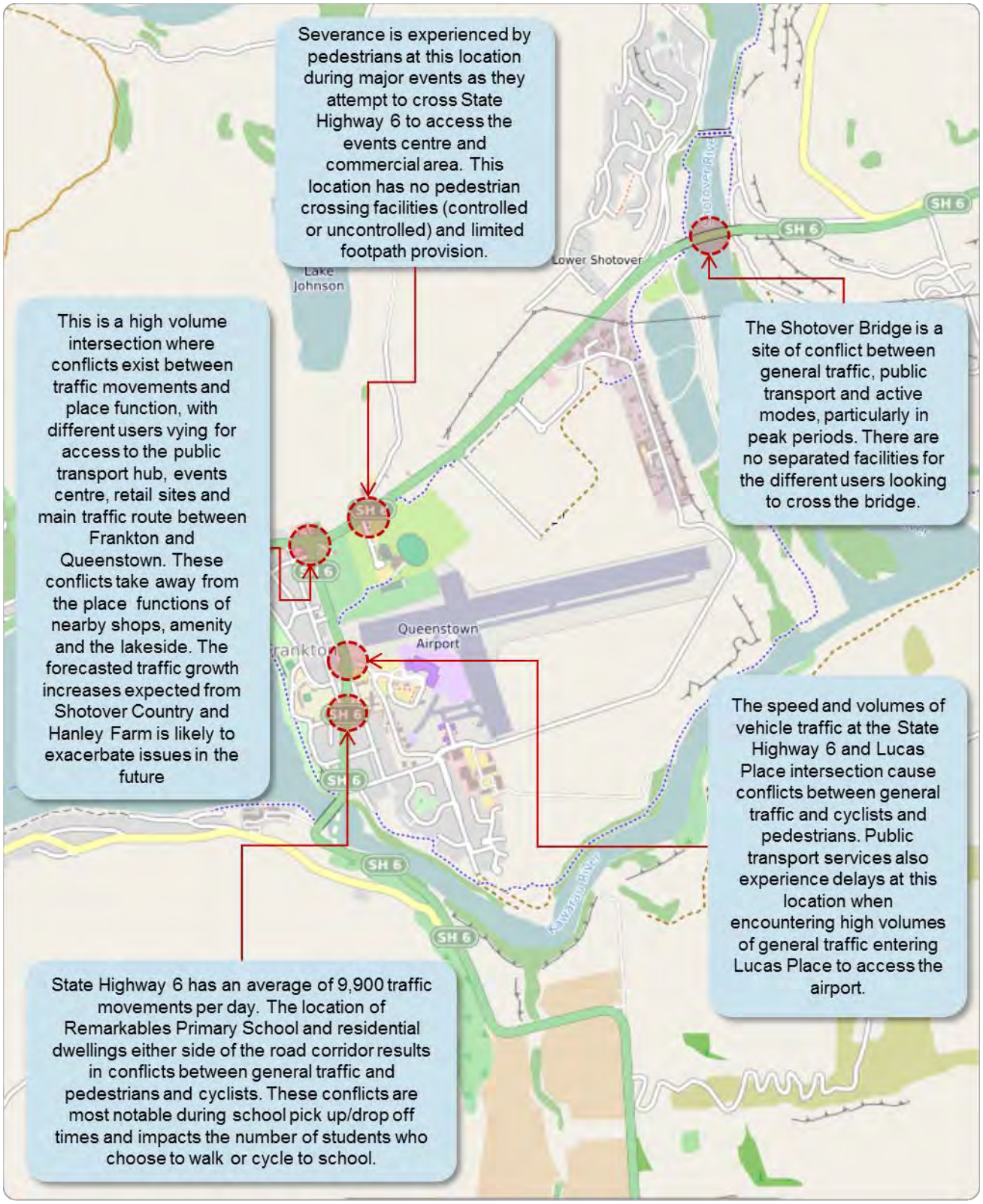
Severance Issues

The car dependency and high private vehicle usage that comes from a transport network favouring travel by private vehicle can have significant impact on local communities and the environment. The term *social or community severance* describes the barrier effect that occurs when the transport network or a lack of access to a private vehicle limits an individual's mobility and access to key services, instead of facilitating it[30]. Parts of the study area and neighbouring residential suburbs are dispersed which makes it challenging to provide efficient, frequent and attractive public transport services. In addition, the high volume of traffic in the area can cause community severance by restricting active mode crossings of these corridors, potentially isolating some people.

A Network Operating Framework (Appendix K) has been prepared in conjunction with this Te Kirikiri Frankton ITPBC that identifies the preferred routes for various modes. In the development of the Network Operating Framework and during the facilitated workshops stakeholders identified a number of conflict points within the study area, as summarised as in Figure 16 below. These conflict points are well known to the community and project partners and have been subject to recent improvements. However the rate of growth in the region and a need to look at long term effective solutions requires investment to address these issues and meet community needs.

[30] Wordpress, Paulo Rui Anciaes, *What is community severance?,* retrieved Oct 2018, from https://communityseverance.wordpress.com/about/

Figure 16 Summary of Key Conflict Points in Study Area



Safety Issues

A review of the NZ Transport Agency's Crash Analysis System (CAS) data has been undertaken to understand the number and severity of active mode crashes in the Te Kirikiri Frankton area over a 5 year period, ending December 2018. This is shown in Figure 17.

Transport safety for active modes can be a major contributing factor to the perception of severance in a community and can impact the uptake of active modes. The CAS data shows:

- 13 crashes in total (3 non-injury, 9 minor injury and 1 severe injury crash)
- 6 crashes involved cyclists (2 non-injury and 4 minor injury)
- 7 crashes involved pedestrians (1 non-injury, 5 minor injury and 1 severe injury crash)[31].

The Te Kirikiri Frankton data demonstrates the majority of pedestrian or cyclist crashes in the study area occurred on or adjacent to the State Highway corridors 6 and 6A. There has also been a cluster of minor injury pedestrian and cyclist crashes near the State Highway 6 / 6A roundabout (BP roundabout). The evidence suggests that the majority of active mode injury crashes occur where active modes and general traffic converge, suggesting that a there is currently a lack of safe crossing facilities at these locations.

The one severe active mode injury crash occurred on Hawthorne Drive, and involved a pedestrian at a pedestrian crossing.

It is important to note that this data represents the reported and recorded crashes on the road network between the designated dates. The NZ Transport Agency have completed a study to predict accidents rates for cyclists and pedestrians due to under-reporting of such incidents[32]. Regarding unreported crashes, the study states that at least half of the cycle accidents occur off-road, and approximately 37 percent of on-road or footpath accidents involving a pedestrian do not involve a motor vehicle.

Having regard to the potential under-reporting of crashes involving active modes, the proportion of reported severe active mode crashes is low, however there is a higher proportion of minor and non-injury crashes. This could be a result of the slow travel speeds observed in the area.

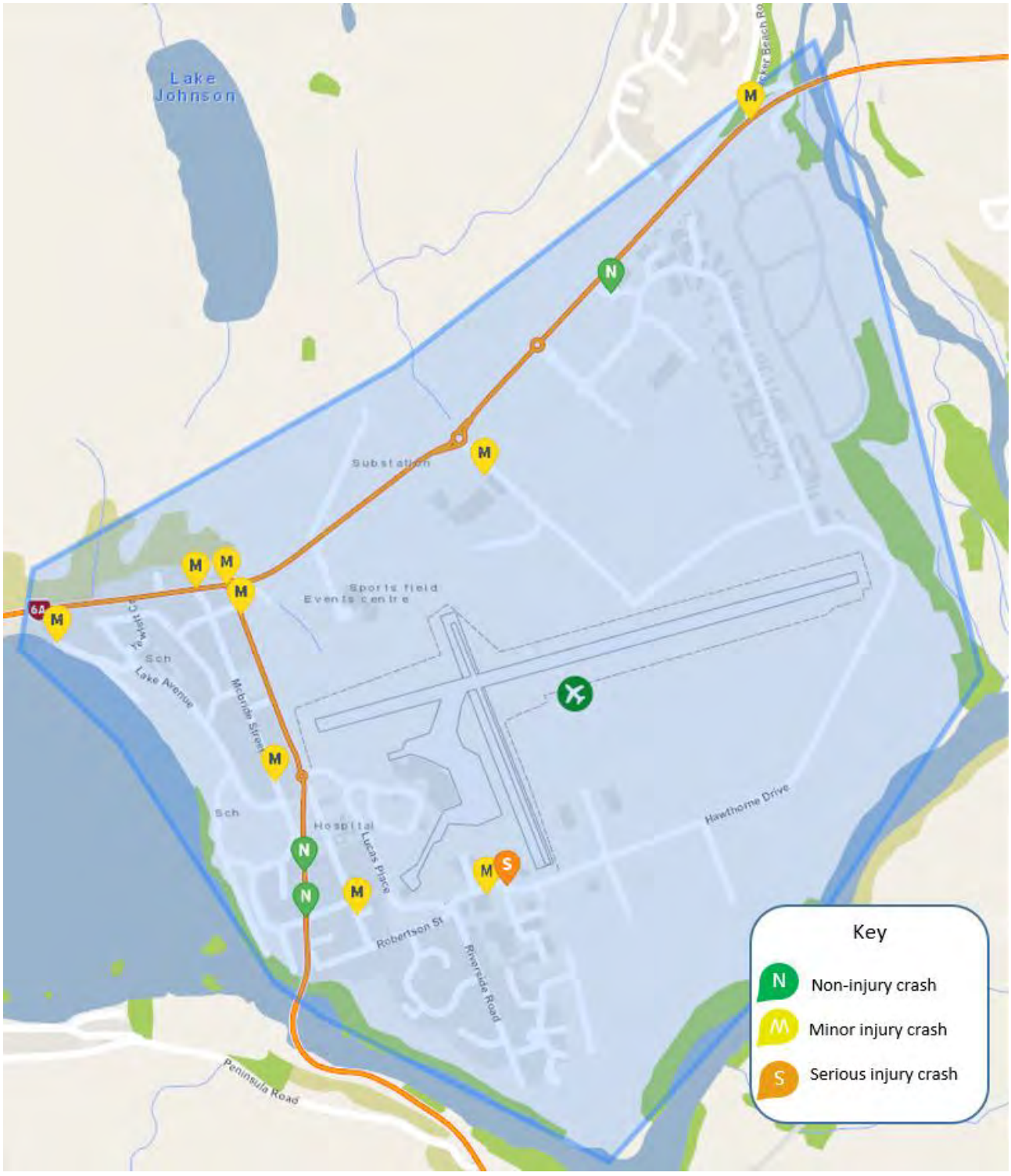
A review of the crash report data shows that a key cause of pedestrian crashes are when pedestrians cross the road and are hit by motor vehicles. A key factor is pedestrians running across the road, heedless of traffic, suggesting a lack of dedicated crossing facilities is leading to pedestrians crossing in between live traffic that is increasing the risk of crashes.

A review of the cycle crash data shows that motor vehicles failing to give way or sideswiping cyclists when overtaking is a key cause of the crashes involving cyclists in the study area.

[31] NZ Transport Agency, CAS Database 2018.

[32] Predicting Accident Rates for Cyclist and Pedestrian, Land Transport New Zealand Research Report 289 (2006).

Figure 17 Pedestrian or Cycle Crashes in Te Kirikiri Frankton 2013 - 2018[33]



[33] Image and data sourced from CAS Database. Serious Injury crashes noted as orange balloons with the letter 'S.'

Environmental Issues

A further consequence of the transport network favouring the private vehicle and the high reliance on car use is vehicle emissions. In 2015, 37 percent of carbon dioxide emissions in New Zealand were attributed to the road vehicle emissions[34]. An ambient air quality (nitrogen dioxide) monitoring station is located outside of Frankton, adjacent to State Highway 6A (intersection of Stanley Street and Sydney Street) to monitor emissions. Annual average nitrogen dioxide values at this site increased from 15 µg/m3 in 2007 to 19 µg/m3 in 2013[35], a 27 percent increase. In comparison, the average increase in nitrogen dioxide levels recorded across all national monitored sites was 19 percent.

The Frankton to Milford Sound Corridor Management Plan also identifies noise and vibration issues from general traffic as an issue for the Te Kirikiri Frankton area[36]. The plan suggests that noise and air quality could worsen further as development continues within Queenstown, Te Kirikiri Frankton and Kingston.

3.2.2 Implications of the Evidence

The transport system in Te Kirikiri Frankton plays an important role in providing access to goods and services and will continue to do so with an increased population and visitor levels. As the gateway to Queenstown by land and air, the reliance on the private vehicle is evidenced by increased volumes which will degrade the experience of visitors and the quality of life of residents in terms of severance, access and environmental degradation.

The dependency on private vehicle travel in Te Kirikiri Frankton is exacerbated by a transport system that favours travel by private vehicle. Behaviours are unlikely to change without intervention by either reducing the need for travel or by providing attractive alternative travel options. The negative impacts of a reliance on the private vehicle are likely to increase with the forecast growth (see problem 2), which will impact the day to day operation of the transport network.

Given the forecast levels of growth there is a need to improve the movement of people, through safe, reliable and attractive travel choices within Te Kirikiri Frankton. This includes the provision of dedicated infrastructure to encourage the use of active modes, particularly for short localised trips, which will help improve the liveability of the area. There is also a need to encourage greater uptake of public transport services to key services and destinations in the Te Kirikiri Frankton area to reduce severance and address safety issues.

Over the longer term, there is a need to investigate higher capacity modes to reduce the negative impacts associated with a reliance on the private vehicle and in particular single occupancy trips in peak hour, and to improve travel time reliability between the surrounding residential suburbs, Te Kirikiri Frankton and Queenstown. This includes improved connections for visitors, particularly between Te Kirikiri Frankton (the Airport) and Queenstown and connections for residents of the wider district to Te Kirikiri Frankton's commercial, employment and retail areas by a variety of modes.

The rapid resident and visitor growth provides an opportunity for land use and transport integration to be embedded in all transport projects to meet the needs of the Te Kirikiri Frankton community and visitors now

[34] Statistics NZ 2017, '*New Zealand's greenhouse gas emissions', New Zealand's Environmental Reporting Series: Environmental Indicators,* retrieved 21 Dec 2018, from http://archive.stats.govt.nz/browse_for_stats/environment/environmental-reporting-series/environmental-indicators/Home/Atmosphere-and-climate/nz-greenhouse-gas-emissions.aspx

[35] NZ Transport Agency, March 2015, *'Figure 41: Maximum, minimum and average NO2 annual values in Queenstown', Ambient Air Quality (Nitrogen Dioxide) Monitoring Network Annual Report 2007- 2013,* retrieved 07 Jan 2019, from https://www.nzta.govt.nz/assets/resources/air-quality-monitoring/docs/air-quality-monitoring-report-2007-2013.pdf.

[36] NZ Transport Agency, 2018, *'People, Places and the Environment', 2018- 2028 Frankton to Milford Sound Corridor Management Plan,* retrieved 07 Jan 2019, from https://www.nzta.govt.nz/roads-and-rail/highways-information-portal/processes/corridor-management/corridor-management-plans/

and in the future. By addressing this problem, Te Kirikiri Frankton can become more accessible, and is preserved as a place to live and visit.

3.3 Problem Statement Two

Current and future land use patterns coupled with infrastructure constraints and significant growth leads to congestion and increasing travel times for all road users

40% weighting

3.3.1 Evidence of the Problem

Population Growth Overview

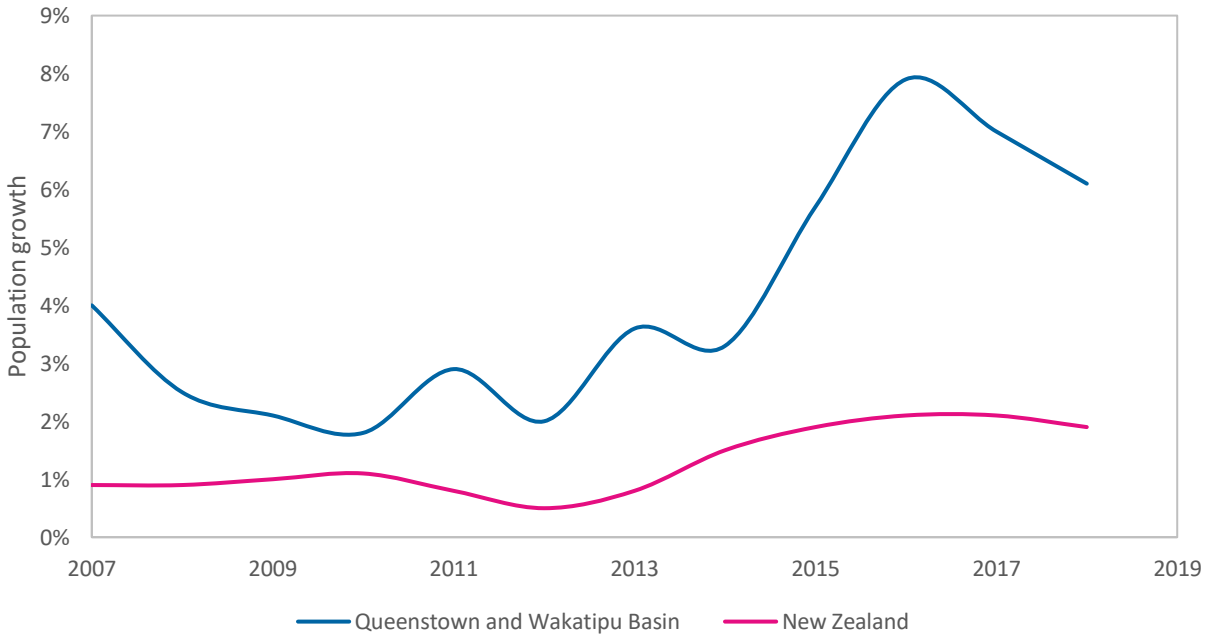
The Te Kirikiri Frankton study area is an important activity and services centre for Queenstown and the wider Queenstown Lakes District as summarised in the land use context (Section 2.3 and Appendix C - Case for Change). The presence of the airport, hotels, retail centres, schools, the hospital and a light industrial precinct in Te Kirikiri Frankton means there is an important servicing transport task associated with these land uses.

As detailed in the QITPBC the Queenstown Lakes District is experiencing unprecedented levels of growth, which coupled with the constrained environment is resulting in widespread congestion and poor travel time reliability for private vehicles and public transport services on key corridors.

The population of the Queenstown Lakes District increased by 38.7 percent between 2013 and 2018[37]. Figure 18 illustrates the population growth between 2007 and 2017 for Queenstown and the wider Wakatipu Basin, which is consistently higher than the New Zealand national average. The sustained population growth has a significant impact on traffic volumes in the Te Kirikiri Frankton area.

[37] Statistics NZ, 2019. New Zealand Census 2018.

Figure 18 Queenstown and Wakatipu vs. New Zealand Basin Population Growth 2007-17[38]



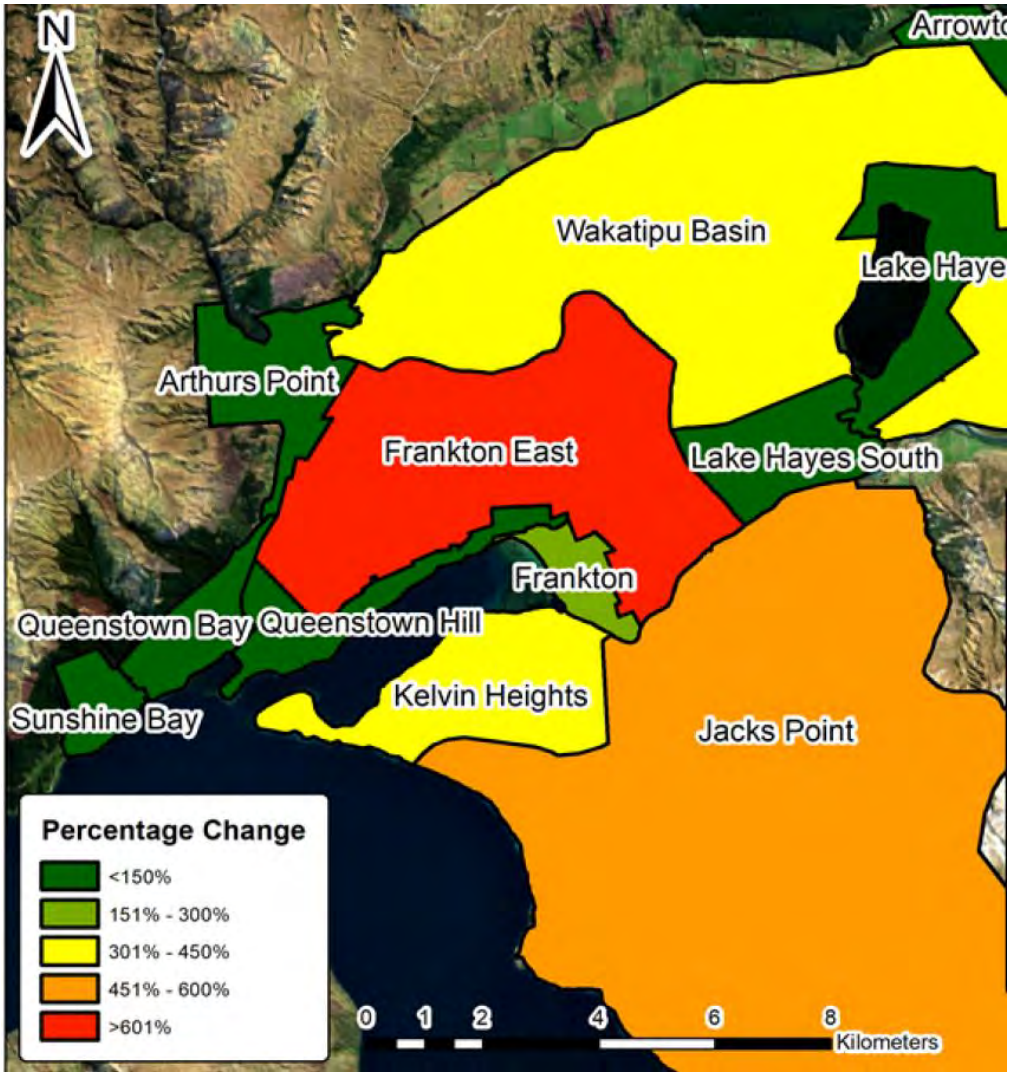
Residential Land Use and Growth

Future planned residential developments will create increased trips within and into Te Kirikiri Frankton as people access local amenities and services. Planned residential developments in Te Kirikiri Frankton are summarised in Appendix B - Case for Change.

Queenstown Lakes District Council residential growth forecasts by Census Area Units are shown in Figure 19 below (shown in Appendix C). This graph shows the growth in residential accommodation for Frankton East which includes the eastern areas of Remarkables Park, Queenstown Central and Quail Rise south. Another key growth area is Jack's Point which is expected to increase from approximately 500 residents in 2018 to over 5,000 in 2048.

[38] Infometrics 2018, '*Wakatipu Ward population growth 2007-2017', Queenstown and Wakatipu Economic Profile*, Infometrics.

Figure 19 Census Area Units for population projections



In a wider Queenstown context, there are a large number of higher density residential developments in the form of 12–15 metre tall residential buildings. The rate of growth of the wider Queenstown and Wakatipu basin has implications for the Te Kirikiri Frankton area due to the limited number of transport routes, which all converge on the Te Kirikiri Frankton area.

As outlined earlier population levels within the project area are expected to increase by more than double in the next three decades in the Frankton and Frankton East areas which are predominately within the project area. The Te Kirikiri Frankton Masterplan also proposes higher levels of intensification within the project area including along SH6 between the Queenstown Events Centre and Shotover River. Whilst this does increase localised demand for transport and movement, it does represent an opportunity for a high capacity public transport system that is more economically viable and can provide more frequent services. This increased development within Te Kirikiri Frankton will also reduce average distances between home, work and amenities and make it easier for people to use active travel ion a daily basis.

Queenstown Airport

Queenstown Airport, located within Frankton, is a domestic and international airport that has operated on this site since 1935. It is estimated that more than a third of all arrivals to Queenstown are via the airport and is a key contributor to the economic and commercial outcomes for the region. The airport has more than 60 businesses and 700 people providing a broad range of services. The airport is owned and operated by Queenstown Airport Corporation and has been involved in the development of this Masterplan. The airport is a lifeline utility under the Civil Defence Emergency Management Act 2002.

The Masterplan seeks to improve connectivity to, from and around the airport for a variety of transport users, including school students, workers at the airport and across Frankton as well as for visitors. QLDC will continue to work with Queenstown Airport Corporation in the implementation of the Masterplan including for precincts such as the Shotover Delta, Arranmore / McBride Farm Heritage Precinct, Emergency Precinct and Lake - Airport Link (new name pending).

Queenstown Airport is the fourth busiest airport in New Zealand by passenger numbers. It is located in the heart of Te Kirikiri Frankton and is a key trip attractor, generating a high number of trips between Te Kirikiri Frankton and Queenstown on SH6 and SH6A, which contributes to 'pinch points' at key intersections along the corridor. The number of flights, passengers, size and function of the airport has considerable influence on the long term planning for the transport network. It will also have an influence on the land uses and general development of Te Kirikiri Frankton, this is outlined in the Te Kirikiri masterplan (Appendix A).

In 2017, around two million passengers arrived at the airport. This number has increased over the past three years due to traveller demand and with the delivery of additional airport infrastructure and the expansion of winter evening flights.

Queenstown Airport occupies the bulk of the precinct and its terminal is another significant district-wide gateway and major destination. The scenic air approach into the airport is one of the best internationally, but is not currently matched by the landside visitor experience and more dominated by car parking, lower quality general aviation and rental car facilities. The airport is developing a Masterplan to accommodate growth and improve both airside and landside facilities.

The southern part of the precinct is one of the key land-based gateways into the area, heightened by the recent completion of the SH6 Kawarau River bridge and associated landscaping; adapted reuse of the heritage bridge for active travel; and the cutting through the terrace embankment. The bridge crossing is located at the outlet of Lake Wakatipu at Ōterotu/Kawarau Falls and connects with active travel routes along the Kawarau River, Frankton Arm and into Remarkables Park. The esplanade reserve has close historical associations with the now intensively developed Kawarau Falls development opposite.

The presence of Kawarau Road (SH6) through the precinct was identified by stakeholders as a barrier to access between Frankton Flats (e.g. Remarkables Park, Wakatipu High School, Lakes District Hospital, and Queenstown Airport) and Lake Wakatipu (e.g. Queenstown Trails, Frankton Beach, Remarkables Primary School), causing community severance and perceived safety concerns. Development constraints relating to the airport noise contours mean it is less optimal for increased development adjacent or near the runway.

Impact on Traffic Volumes

Data for annual average daily traffic volumes has been obtained for the key State Highway corridors in the Te Kirikiri Frankton area. 2017 traffic and transport data has been used to align with the base years and assumptions that have been used for the transport modelling which is informing the transport business cases within the *Way To Go* programme. These highlight the growth in annual average daily traffic, particularly over

the past three years. General traffic volumes have increased from 18,823 vehicles per day in 2013, to 25,636 in 2017, with annual general traffic volumes increasing by 7.2 percent between 2016 and 2017.

Heavy vehicle traffic volumes have also increased from 878 vehicles per day in 2013, to 1,298 in 2017, with an increase of 10.4 percent between 2016 and 2017. A detailed review of existing traffic data has been undertaken to understand the movement profile of vehicles by time of day as shown in Appendix B - Case for Change. In November 2018 the Queenstown-Lakes District Transportation Model was updated to reflect new population and land use growth forecasts. The information contained in that model has been used for the transport assessment and subsequently for the economic assessment for this ITPBC. Under the assumption that current travel behaviours remain consistent (there have been some allowances for longer peak spread and minor changes in travel demand) and no additional infrastructure is provided, the model forecasts the following increase in traffic flows, see Table 9 below.

Table 9 Transport Model Output Forecast[39]

Location	2028 (veh/hr)	2048 (veh/hr)
State Highway 6 at Joe O'Connell Drive in the PM peak	53% increase	84% increase
State Highway 6 at Kawarau Falls Bridge in the AM peak	126% increase	261% increase
State Highway 6A Marina Drive (west of the SH6/ SH6A roundabout) in the PM peak	44% increase	92% increase

The model forecasts poor AM and PM peak (7am-9am and 4pm – 6pm) level of service ratings for State Highway 6 and 6A in the north of the study area by 2028, and traffic volumes at these locations in PM peak times at or exceeding the theoretical capacity by 2028. This emphasises the scale of the impending traffic growth facing the study area and the increasing travel time impacts that will occur due to key corridors operating above their theoretical capacity within the next ten years.

As evidenced in the transport context section of this ITPBC, the transport network in the Te Kirikiri Frankton area is constrained by limited alternative routes and geographic constraints. Travel time reliability and congestion issues are exacerbated by the limited access points to the area, which constrain traffic flows, particularly along the east-west SH6-SH6A corridor.

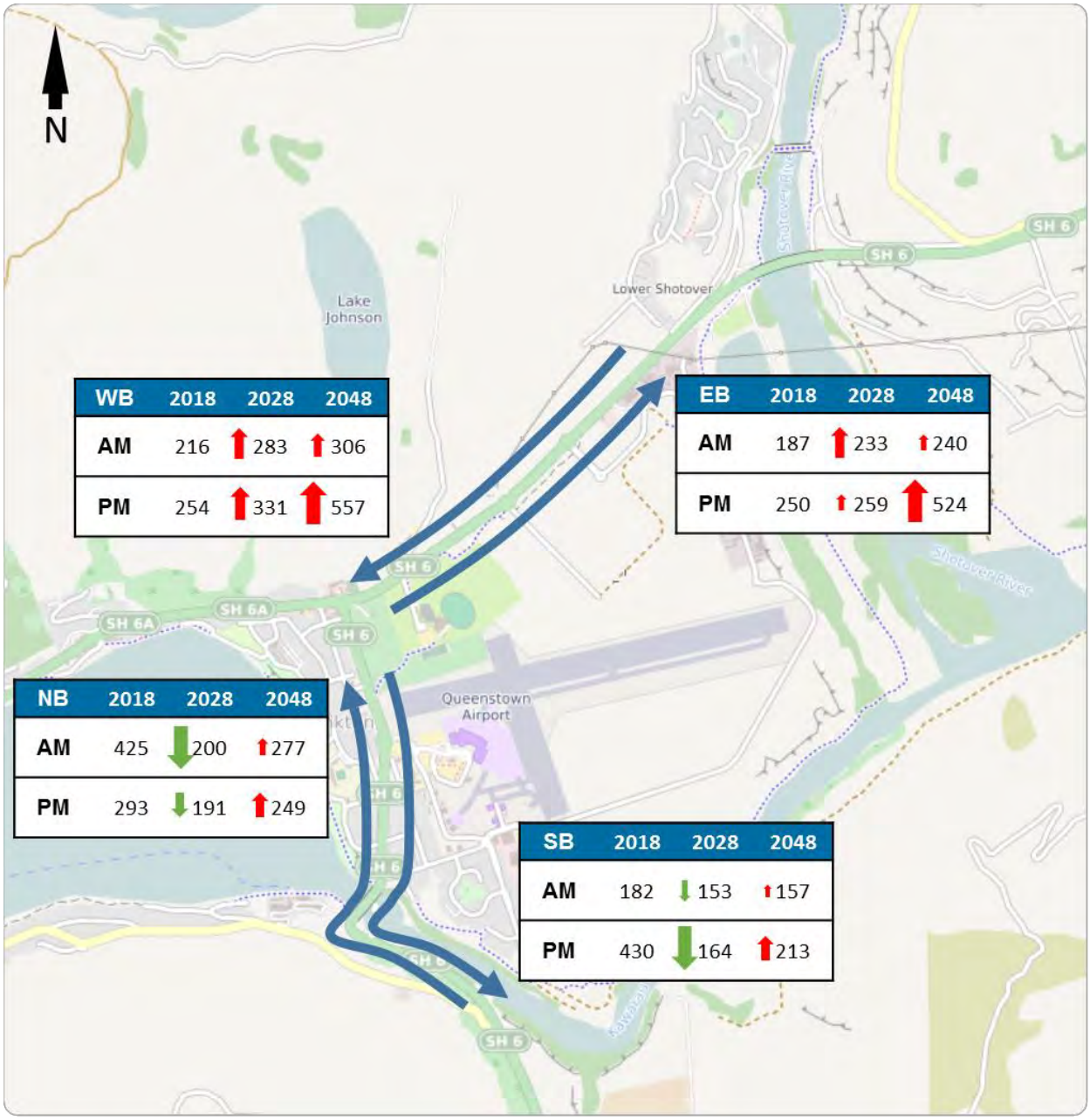
Impacts on Travel Time

The travel times for vehicles on key corridors in Te Kirikiri Frankton have been extracted from the 2018 (TomTom), 2028 and 2048 traffic model outputs for all periods of the day. Figure 20 displays travel times in seconds for AM peak and PM peak periods for four key corridors.

The One Network Road Classification (ONRC) is designed to standardise the performance of roads throughout New Zealand, aiming to address historical inconsistencies, and promote economic growth. The State Highway corridors that traverse Te Kirikiri / Frankton aim to maximise throughput on these higher classification corridors to best satisfy demand. As shown below, these corridors are expected to experience significant increases in travel times over the next 30 years, suggesting increased levels of delay and congestion. This does not align with the corridors ONRC classification.

[39] Abley, 2018. *'Updated Future Model Inputs and Outputs', Queenstown-Lakes District Transportation Model,* email received 28 Nov 2018 from D. Smith.

Figure 20 Travel Times (in seconds) on Key Routes 2018 - 2048[40]



The largest travel time variance for 2018 is from SH6/ SH6A Roundabout to Stalker Rd Eastbound, comparing the AM and PM peak travel times where the variance is 63 seconds. This variance is expected to increase to 284 seconds in 2048 according to transport modelling data. Travel times are forecast to increase on all of State Highway 6 between 2018, 2028 and 2048. The exception being State Highway 6 over the Kawarau River, where travel times are forecast to decrease between 2016 and 2028 due to improvements

[40] Abley, 2019. *'Section 7.4 Travel Times on Key Routes,' Queenstown Lakes District Model 2018 Update: Future Forecasting Report,* Queenstown Lakes District Council/ NZ Transport Agency.

2018 Travel times sourced from TomTom as per Stantec, WSP Opus, Abley, Mar 2019. '*Section 7.4 Journey Times,' Queenstown Business Case Transport Modelling Local Model Validation Report (LMVR),* NZ Transport Agency.

Note: SH6 Peninsular Road to SH6/ SH6A and SH6/ SH6A Roundabout to Peninsular Rd travel times sourced from model, TomTom data not available.

along this section, not yet completed but included in the Do Minimum programme (funding pending) and allows for greater prioritisation of public transport. However, travel times are forecast to increase on this corridor between 2028 and 2048.

Although a majority of vehicles in peak periods are currently experiencing congestion in Te Kirikiri Frankton, comparative travel times within the wider Queenstown Lakes area demonstrate that private vehicle travel between key suburbs to Te Kirikiri Frankton are currently significantly quicker than public transport, walking or cycling, as demonstrated in Table 10.

Table 10 Travel Time Comparisons between Key Locations[41]

Destination	**Frankton**[42]			
Origin	**Public Transport**	**Private Vehicle**	**Cycling**	**Walking**
Queenstown Town Centre	30 min	13 min	35 min	1 h 45 min
Lake Hayes	50 min	18 min	53 min	2 h 20 min
Lake Hayes Estate	35 min	16 min	34 min	1 h 40 min
Jacks Point[43]	33 min	12 min	30 min	1 h 41 min
Lower Shotover[44]	35 min	14 min	31 min	1 h 30 min
Kelvin Heights	25 min	12 min	43 min	1 h 36 min

The Queenstown (servicing the Wakatipu basin) bus route map in Appendix C - Case for Change shows the extent of the residential dispersion in the area and the lack of bus service coverage, frequency and directness in some areas such as Arrowtown, Quail Rise, Jacks Point and Shotover Country. It also highlights the distances/routes buses need to travel to service the residential catchments around Te Kirikiri Frankton. Queenstown bus service distances and coverage combined with low frequencies and long travel times all contribute to making public transport less favourable than travel by private vehicle.

The significant walking and cycling travel times between key locations as shown in Table 10 illustrates the dispersion of residential catchments relative to the key activity centres in Queenstown. Limited separated active mode infrastructure or dedicated crossing facilities makes commuting by active modes unattractive (refer to section 2.7.2). Only 16 percent of residents in Te Kirikiri Frankton / Frankton East travel to work by active modes according to Census 2013. This is considered low relative to the short distances to employment and activity nodes in Te Kirikiri Frankton and Queenstown Town Centre.

[41] Travel Times sourced from Google Maps to arrive by 8.20 am Wednesday 9th January 2019.

[42] Frankton location: Remarkables Park, Suite 305, Building 7, Remarkables Park Town Centre, Hawthorne Dr, Frankton, Queenstown 9300

[43] Origin: Jack's Point Golf Course & Clubhouse, Jack's Point Restaurant, 9348, Mcadam Dr, Kawarau Falls

[44] Origin: Shotover Country Cottages, Lower Shotover 9371

3.3.2 Implications of the Evidence

As the resident population continues to grow in line with current land use patterns, it is expected that this will result in the increased movements of people and goods in and through Te Kirikiri Frankton, which will exacerbate existing transport problems. The combination of the geographically constrained transport network, dispersed residential settlements and commercial activity nodes mean congestion and travel time delays are expected to worsen over time.

This problem is asserting that an integrated plan for land use development and a connected and reliable multi-modal transport system is required. The current settlement patterns of Queenstown are dispersed which makes these residential areas challenging to service by all modes, particularly public transport.

High-density residential development within Te Kirikiri Frankton and transport-oriented development adjacent to key routes will improve community access to multi-modal transport choices (active modes and public transport). The development of a connected active mode network, and a high capacity, frequent public transport network along with residential infill to increase densities in Frankton will increase demand and encourage uptake of public transport and active modes.

Improving accessibility and the relative travel time competitiveness of active modes and public transport through priority measures will benefit all road users by redistributing demand on the road network. These interventions along with Travel Demand Management activities identified in previous studies and, as well as part of the programme options developed for this ITPBC are necessary to support services improvements and capital investments.

3.4 Benefits

The benefits of investing in the transport network were reconfirmed by stakeholders during the facilitated workshops held between 28th and 30th November 2018. The benefits and associated weightings identified are consistent with the previous business cases undertaken in the area, as summarised in Table 11.

Table 11 Benefit Statements

Benefit	Benefit Statement
Benefit One	Access to improved transport choices for people of all ages and abilities.
Benefit Two	Te Kirikiri Frankton is a safe and welcoming gateway to Queenstown and the region, hosting a unified, bustling community of businesses, residents and visitors.
Benefit Three	A transport network and system that is reliable and meets the access and movement needs of the community.

3.5 Investment Objectives and Key Performance Measures

Drawing on the current context and the case for change outlined above, five investment objectives have been developed for the Te Kirikiri Frankton ITPBC. For the purpose of measuring the success of investment options, key performance indicators (KPI's) have been identified as summarised in Table 12 to Table 16.

Table 12 Investment Objective 1: Reduce severance, transport effects on the environment, and improve the liveability and attractiveness of Frankton

KPI	Measure	Baseline
KPI 1.1: Community accessibility (severance)	Number of pedestrian crossing points within 200 m of residential/ commercial/retail catchments* on key routes (SH6 and SH6A)	(2018) 2 signalised crossings (both on SH6 between Kawarau Falls Bridge and Frankton Junction)
KPI 1.2 Air and water quality (environment)	CO2 emissions from transport (total vehicle km travelled divided by vehicle hours travelled)	(2018) To be confirmed by the transport model
KPI 1.3: Quality of life (liveability)	Queenstown Quality of Life Survey: Number of respondents who agree or strongly agree to the question: *I participate in activities within my neighbourhood*	(2018) 50 percent of respondents agree or strongly agree that they participate in activities within their neighbourhood
KPI 1.4: Visitor gateway (attractiveness)	Visitor Experience Queenstown Survey. Question on satisfaction with local transport options and services. Average visitor response by country of origin (out of 10)	(Q2 2018) NZ Visitors: 7.5 Australian: 8.5 International: 8.3

* assumed to be 200 metres plus 200 metres which is 5 minute walkable catchment of 400 metres

Table 13 Investment Objective 2: Improve access to and use of multi-modal transport options for people of all ages and abilities

KPI	Measure	Baseline
KPI 2.1: Frankton households within 800m of high frequency and convenient travel choices (access)	Households within 800m of a high quality cycling route (sealed and separated from pedestrians and vehicles)	(2018) Estimated 5% of households
	Households within 400m/800m of a high frequency public transport service (minimum 15 minute frequency)	(2018) Estimated 40% of households within 800m

KPI	Measure	Baseline
KPI 2.2: Uptake of active modes and public transport (use of multi-modal transport)	Mode share percentage of active modes for journeys to work or school (Frankton/Frankton East Census)	(2013) Walk: 3.74% Cycle: 12.30%
	Mode share percentage of public transport for journeys to work or school (Frankton/Frankton East Census)	(2013) Public transport: 3.48% (2018/19 1.5 million bus trips = 182% increase on 2017 calendar year)

Table 14 Investment Objective 3: Provide safe transport choices and improve safety perception

KPI	Measure	Baseline
KPI 3.1 Reduce deaths and serious injury crashes (safe transport choices)	Number of death and serious injury crashes as a proportion of vehicle kilometres travelled	(2014-2018) 4 death and serious injury crashes
KPI 3.2 Reduce number of active mode crashes in study area (safe transport choices)	Number of active mode crashes as a proportion of mode share	(2014-2018) 13 crashes
KPI 3.3: Improve community perception of safety (safety perception)	Queenstown Quality of Life Survey: Our safety – dangerous driving. Question: Is dangerous driving a problem?	(2018) 72% (of residents) it's a significant or a moderate problem

Table 15 Investment Objective 4: Improve active mode network connectivity and comfort

KPI	Measure	Baseline
KPI 4.1: Connected network for active modes (active mode network)	Number of kilometres of connected walking and biking facilities	1.2 km paved facilities, 8.5kms of unsealed trails Localised walking facilities Poor connections between trails and local networks
KPI 4.2: Level of Service rating for active modes network	LoS rating for active travel corridors	2015: Queenstown to Frankton LoS D

KPI	Measure	Baseline
(comfort)	Austroads LoS Assessment[45]	Jack's Point to Frankton LoS F Lake Hayes to Frankton South LoS D

Table 16 Investment Objective 5: Improve transport system reliability and travel time

KPI	Measure	Baseline
KPI 5.1: Average travel times at peak times between key locations (travel time reliability)	Average travel times for general traffic between: • SH6 Ladies Mile / Stalker Road Roundabout and SH6/SH6A intersection • Kawarau Falls bridge (Kingston Road) and SH6/6A intersection	(2019) 2 mins, 56 secs 3 mins, 5 secs (Tom Tom)
	Average travel times for public transport between: • SH6 Ladies Mile / Stalker Road Roundabout and SH6/SH6A intersection • Kawarau Falls bridge (Kingston Road) and SH6/6A intersection	(2019) 8 mins Estimated 15 mins[46] (Orbus timetable)
	Average travel times between Shotover Bridge and Kawarau Falls Bridge for cycling, walking	Cycling - 17 mins Walking – 52 mins (Google maps 2019)
KPI 5.2: Improve the attractiveness of public transport by reducing travel time difference between public transport and general traffic (travel time)	Average travel time between SH6 Stalker Road and BP Roundabout by mode at peak times (westbound and eastbound)	(2018) TBC by PT study

[45] As referenced in the Active Travel Network Detailed Business Case for pedestrians and cyclists on primary and secondary active mode routes that travel through the Frankton area.

[46] Note: Based on half of the scheduled bus travel time for a journey from Poplar Drive (Kelvin Heights) to the Frankton Terminus (Orbus, 2019).

3.6 Alignment to Existing Strategies/ Organisational Goals

This section outlines the transport, economic and planning context for the Te Kirikiri Frankton ITPBC. The investment objectives include a focus on safety, access, the environment and place-making, and align well with the GPS strategic priorities. This close fit and alignment with parallel projects means that investment will complement schemes and projects already outlined by the key investment partners and wider stakeholders.

The alignment with relevant strategies, plans and policies is provided in Table 17 (a more comprehensive assessment is provided at Appendix D – Strategi).

Table 17 Alignment to Key Strategies and Organisational Goals

Strategy	Organisation	Areas of Alignment with Investment Objectives
Government Policy Statement on Land Transport 2018- 21	Central Government	The GPS 2018 defines safety and access as key priorities. The objectives of these priority areas are a land transport system that: ▪ Is a safe system, free of death and serious injury ▪ Provides increased access to economic and social opportunities ▪ Enables transport choice and access ▪ Is resilient Supporting strategic priorities are the environment and value for money. The Te Kirikiri Frankton ITPBC aligns with these priorities.
Otago Regional Council Long Term Plan 2018 – 2028	Otago Regional Council	The Otago Regional Council Long Term Plan outlines the current state of the regional transport network and the challenges it faces now and into the future. The document outlines the key programmes and projects to respond to these challenges. These programmes seek outcomes similar to those reflected in this ITPBC and include: ▪ Maintain and enhance the natural environment ▪ Provide efficient and reliable public transport services that meet community needs o Increased off-peak services in Queenstown o Consider the feasibility, implementation and operation of a small ferry service on Lake Wakatipu o Investigate mass transit options for increased passenger capacity between Queenstown and Te Kirikiri Frankton
Queenstown Lakes District Council Ten Year Plan 2018-28	Queenstown Lakes District Council	The Queenstown Lakes District Council Ten-Year Plan 2018-28 outlines the strategic direction of the district for the next decade, and the key issues it expects to face in this time. In particular, the document states that maintaining vibrant, accessible town centres is vital to keeping the district liveable.

Strategy	Organisation	Areas of Alignment with Investment Objectives
Queenstown Integrated Transport Programme Business Case	Queenstown Lakes District Council	The investment objectives of the QITPBC are defined as: 1. To improve network performance for private vehicles, public transport and cycling 2. Improved liveability and visitor experience

The assessment of relevant strategies, plans and policies concludes that the Te Kirikiri Frankton ITPBC investment objectives are consistent with the priorities set out in key national, regional and local documents. Many of the interventions developed through this ITPBC will result in direct contributions towards the outcomes sought in these strategic documents.

Part B – Developing the Programme

4. Alternatives and Options

The *Way To Go* investment partners and stakeholders provided input into the development of alternatives and options for the Te Kirikiri Frankton ITPBC. Key to developing the programme options was undertaking a review of partners' plans, strategies and testing various alternatives with stakeholders in a facilitated workshop and subsequent correspondence and development with project partners.

This approach, and the alternatives and options development stakeholder workshop, saw the identification of numerous potential options – also referred to as interventions - in the areas including:

- Policy and land use
- Parking
- Walking improvements
- Cycling improvements
- Public transport
- Mass transit
- Freight management
- Road corridor improvements
- Travel demand management (includes new/emerging technology and marketing/promotional activities)
- Enforcement (for example, parking management and bus lane enforcement).

A total of more than 150 interventions were identified by this approach, and were used as the basis for developing an initial long list of programme options. The options considered included those identified through the QITPBC and other business cases currently being developed through the *Way To Go* partnership.

A summary of the options identified for each alternative are outlined below.

Policy and Land Use

Policy and land use options relate to land use planning, land transport planning, and district plan reviews. Policy and land use interventions are important as they can generate benefits across all of the project investment objectives and can provide the residential density required for high capacity transport options.

The interventions identified in the policy and land use alternative area were wide ranging. They included local provisions of key facilities, urban intensification, transit-orientated development, airport relocation, education zoning and public transport trials.

Increased residential and commercial opportunities as identified in the Te Kirikiri Masterplan will be critical to the long-term outcomes sought from this ITPBC through increased public transport patronage and active mode uptake. This in turn reduces emissions from vehicles and allows for more localised movements to access education, employment and other amenities. Improved land use and achieving the masterplan outcomes such as integrating with the rivers and the lake will have ongoing community benefits. Increased

levels of residential and commercial activity within Te Kirikiri Frankton will reduce the impact of continued suburban development across the Wakatipu Basin.

Parking

Parking options identified involved parking strategies and adjusting parking requirements for any new developments. Stakeholders and technical assessments consider parking interventions to be important for this project because they will be effective in promoting mode shift away from travel by private vehicles, especially for commuters and those working in the Queenstown town centre.

The parking options identified included removing existing on street parking, minimising the parking requirements of new developments and adjusting current parking charges in Queenstown Town Centre and Frankton. It is important to note that addressing car parking availability in Queenstown, especially for commuters will have measurable impact on the transport network within Frankton including an uptake in public transport and active modes.

Walking Improvements

The active mode network within Frankton is currently incomplete with many unconnected sections which reflects the current state of development within the area. The walking options considered related to safety and a connected network of separated facilities. Walking improvements are important because they improve an individual's feeling of connectivity with key activity nodes and others in the community. They also provide users with significant health and wellbeing benefits.

Walking improvements considered for Frankton include more pedestrian friendly shared spaces, improved crossing facilities, slow speed environments, new active travel links, and provisions for pedestrian infrastructure such as street furniture and lighting and wayfinding signage improvements. As Frankton develops and becomes more densified walking will become a more viable options with amenities closer to where people live and work.

Cycling Improvements

The cycling improvement options considered were improved cycle network connectivity in Frankton as well as suitable cycle facilities between residential settlements and activity nodes. Cycling infrastructure provides health and safety benefits and aligns well with masterplan outcomes. Uptake in cycling for commuters and those travelling in peak periods such as students will be vital to achieving an improved transport network and the ongoing health benefits.

Cycling improvement interventions considered for this programme include improved commuter cycling routes, bike storage and mode transfer facilities, connectivity under the airport, safe walking and cycling routes for students, shared space improvements and cycle hire schemes. The community, especially school children, are keen to use cycling as their primary form of transport but have been limited due to an unconnected network with a number of unsafe routes or crossing of State Highways and local roads. The proposed network of trail and commuter routes will be critical to the development of a functioning transport network for the community.

Public Transport

Public transport options considered improvements to both public transport infrastructure and operations. Public transport options are important because they can satisfy investment objectives for multi-modal access, safety, and travel time reliability. Mass Transit was considered separately, for this assessment public transport was considered to be buses and ferries. The public transport interventions identified included public

transport infrastructure upgrades, the establishment of bus hubs, bus service improvements, public transport priority measures, dedicated corridors, park and ride facilities, and express routes.

The recent improvements of the bus services and introduction of the $2 fare has seen significant uptake of the bus network and services. Further improvements to direct services, prioritisation at pinch points and increased frequency is likely to see this uptake continue. Improved services coupled with increased parking costs in Queenstown is likely also support this uptake.

High Capacity Public Transport

High capacity public transport options considered included ground based mass transit systems such as trackless trams as well as a gondola service. These options are expected to be supported by bus and ferry services for lower demand and density areas of the network. High capacity public transport options are important to consider because they provide a long-term solution to accommodating the transport movement demands and forecasts for increased resident and visitor numbers and service higher density and demand areas.

High capacity public transport interventions considered by project partners included services between Queenstown Town Centre, Frankton, Jack's Point and Lake Hayes Estate. Services also considered where practicable connecting the airport to Queenstown, and / or Remarkables Park to Queenstown, and improved ferry infrastructure and services between Frankton and Queenstown.

Freight Management

Freight options identified included freight policy changes, operational management or infrastructure improvements. These options consider measures to manage freight movements, or encourage alternative freight options to reduce exposure to, and the number of Heavy Commercial Vehicles within the Te Kirikiri Frankton study area. Freight movement is critical for the economic viability of the region and within Te Kirikiri Frankton for commercial operators such as tourism, catering and construction.

The freight interventions identified included increased provisions for loading zones, freight restrictions on some local roads, freight hubs, and time of day restrictions for freight deliveries.

Road Corridor Improvements

Road corridor improvement options identified included online improvements made to existing corridors and offline new road corridors. Road corridor improvements are considered important as they can improve network safety and efficiency, and the throughput of people on key corridors.

Road corridor improvements considered include increasing capacities on key routes and bridges, constructing new bridge crossings and links, intersection upgrades, high occupancy vehicle lanes, and pedestrianising local roads. Also considered are some new connections to improve movements around the airport and Remarkables Park.

Travel Demand Management

Travel demand management is essentially utilising the existing transport network and services more effectively by changing travel behaviours through incentives, education and promotion. Carpooling and workplace travel plans, and education and marketing campaigns were suggested as options for the travel planning and behaviour change interventions. Travel demand management measures can be effective in reducing volumes of Single Occupant Vehicles (SOV's), which has positive travel-time reliability benefits and safety benefits.

Specific travel demand management interventions considered for this project high occupancy vehicle lanes (utilising proposed bus lanes), workplace and school travel planning, education programmes, public transport and active modes marketing campaigns. Visitor education and wayfinding improvements are necessary as Te Kirikiri Frankton develops as a major tourist accommodation, residential and commercial centre.

Enforcement

Enforcement is a crucial element for the safe and efficient operation of any transport network. The options proposed focus on increased police enforcement and reduced speed. Enforcement is best used within a coordinated approach to safer road use. Increased police enforcement/presence is dependent on increased police funding at a national level. The enforcement options are important as they can provide safety benefits and speed reductions can improve community connectedness.

Speed Management

The setting of safe and appropriate speeds is critical to creating a safe transport network and reducing the amount of harm to our communities. It is proposed that roads and State Highways that have high volumes and are generally in a urban environment be considered for a reduction in current speed limits to reflect their operating function and to allow for the safe movement of people and goods.

5. Long List Programme Development and Assessment

A set of programme options were developed by the project team compiling sets of alternatives in differing areas of focus. These ranged from a 'Do Minimum / Planned Investments' through to programmes promoting community access and safety, public transport and active modes, mass transit and active modes, increased lane, bridge and parking capacity, to a major capital investment focus programme.

The programmes deliberately focus investment in different areas to demonstrate that the problems could be addressed in multiple ways and to promote constructive feedback from stakeholders in relation to the achievement of investment objectives. These programme options formed the Te Kirikiri Frankton ITPBC long list of options and were presented, discussed and refined with stakeholders and investment partners.

5.1 Programme Long List Descriptions

In total there were seven long list programme options developed for the Te Kirikiri Frankton ITPBC. These programmes are summarised below and detailed descriptions can be found in Appendix F - Long List Option Descriptions and Assessment.

Programme Option 1 – Do Minimum

The Do Minimum/Business as usual programme option incorporates all of the of the planned/funded investments into the transport network as per the Otago Regional Council Regional Land Transport Plan, plus gradual improvements in walking and cycling and increased public transport services. This programme has an overall focus on road improvements, public transport activities and completing the urban cycling network. There are no long term interventions scheduled for this programme.

Programme Option 2 – Community access and safety

The community access and safety programme option focuses on improving safety and accessibility within Te Kirikiri Frankton, primarily by investing in walking and cycling, and improved and increased public transport services. This includes the provision of an orbital bus service around Te Kirikiri Frankton. Investment in active modes and public transport within Te Kirikiri Frankton aims to address community severance and meet localised transport needs. The programme also focuses on optimising the network through speed management freight restrictions and providing supporting road safety improvements to key intersections along the corridor.

Investment in this programme centres on promoting liveability, enhancing the community feel of Te Kirikiri Frankton and the way the area operates as a gateway to Queenstown. It is aligned to the Te Kirikiri Frankton Masterplan principles but will have limited effectiveness in achieving some of the investment objectives such as increasing uptake in public transport.

Programme option 3 – Public transport (bus prioritisation) and active modes

Programme option 3 has a similar focus on active modes as programme option 2, however there is much greater focus on public transport. The programme's interventions aim to provide connected and segregated bus and active mode networks in Te Kirikiri Frankton. This can be achieved by constructing two public transport and active mode bridges over the Shotover River and Kawarau River, which will improve access to

the study area for these modes. Connection to bus lanes and a connected cycle network will allow quick travel within and through the Te Kirikiri Frankton area.

This improves the travel time reliability and the safety for both modes, making them more appealing transport options and relieving pressure on the road network as traffic flows start to increase.

Programme option 4 – Mass transit within ten years and active modes

Programme option 4 invests heavily in the public transport network in the short-term through bus prioritisation, whilst a mass transit network is developed within ten years to accommodate predicted growth in visitor movements.

Whilst there is a key focus on public transport, this programme will still invest in cycling and walking improvements, land use planning interventions and some short-term public transport prioritisation road safety upgrades. Additionally there are some works proposed for the upgrade and improvement of the ferry terminal.

Movements to and through Te Kirikiri Frankton are promoted more under this programme option when compared to programme options 1 to 3. Localised movements are however also addressed through the walking and cycling improvements and network optimisation measures.

Programme option 5 – Public transport (mass transit within 20- 25 years) and active modes

Programme option 5 invests significantly in active modes and the public transport network in the short to medium-term; this includes provisions for increased bus services and bus priority measures. Bus priority measures and priority lanes aim to improve short-term public transport travel-time reliability. Travel demand management measures support the infrastructure interventions to encourage short-term public transport uptake. In the medium-term bus rapid transit is constructed parallel to State Highway 6 and 6A between Queenstown Town Centre and Lake Hayes Estate. Longer-term activities include the development of a mass transit system to accommodate expected future growth.

Programme option 5 is similar to programme option 4, however it proposes the delayed implementation of a mass transit system, meeting growth in the medium to short term with the rapid bus transit option. It also includes the construction of public transport and walking and cycling bridge over Shotover River and Kawarau River promoting safety and travel time reliability. Additionally there is a greater focus on land use planning interventions such as an increase in the residential intensification in Te Kirikiri Frankton which will mean there will be more movements within Te Kirikiri Frankton and less travel movements to, and from Te Kirikiri Frankton.

Programme option 6 – Lane, parking and bridge capacity increase

Programme option 6 focuses on expanding the network by increasing road capacity, building new roads, new lanes, improved crossings and car parks. Public transport improvements are implemented but no high occupancy vehicle or bus priority lanes are installed as general corridor capacity increases will improve travel time reliability for all transport modes including public transport.

This programme option allows the existing higher speeds on State Highway 6 in the study area to be retained, and requires underpasses to be constructed for State Highway crossings.

Programme option 7 – Do maximum

The do maximum programme option provides new corridors, increased roads and carparks, increased public transport and river crossings for general traffic, public transport and active modes.

This programme has a heavy infrastructure focus. New corridors and capacity improvements to existing corridors and intersections allow current high speeds on state highways to be retained. It requires underpasses to be constructed for State Highways.

Public transport improvements are implemented and an orbital bus route connecting key activity nodes within Frankton is constructed. Public transport improvement activities include bus prioritisation at key locations and Park and Ride facilities. A mass transit network is developed within ten years to accommodate growth in visitor movements.

A high level summary of the programme options and the key interventions is provided in Table 18. The table emphasises how each programme differs and the likely timeframes. For example, programme option 4 proposed the implementation of a mass transit service in the medium term, while programme option 5 proposes this for the long term. Some of the high level interventions such as 'walking and cycling upgrades and improvements' will have short, medium and long term interventions which vary in scale and size. The details of these can be found in Appendix F - Long List Option Descriptions and Assessment.

Table 18 Programme Long List Summary

Key interventions of Programme	**Programme 1** – Do Minimum	**Programme 2 –** Community access and safety	**Programme 3 –** Public transport (public transport prioritisation) and active modes	**Programme 4 -** Mass transit within ten years and active modes	**Programme 5** Public transport (mass transit within 20- 25 years) and active modes	**Programme 6 -** Lane, parking and bridge capacity increase	**Programme 7** - Do maximum
Walking and cycling upgrades and improvements	🟢🟡	🟢🟡🟠	🟢🟡🟠	🟢🟡🟠	🟢🟡🟠	🟢🟡	🟢🟡🟠
Segregated active mode corridors		🟠	🟢	🟢	🟢		🟠
Road and infrastructure upgrades (e.g., road upgrades, intersections, etc.)	🟢	🟢🟡	🟡	🟢	🟢	🟢🟡🟠	🟢🟡🟠
Optimisation of existing public transport services	🟢	🟢	🟢🟡🟠	🟢🟡🟠	🟢🟡🟠	🟢🟠	🟢🟡
Increase in public transport services	🟢🟡	🟢🟡🟠	🟢🟡	🟢🟡	🟢🟡		🟢🟡🟠
Additional public transport facilities (e.g. transport hub, interchange, Park & Ride etc.)		🟢🟡	🟢🟡🟠	🟢🟡🟠	🟢🟡🟠		🟢🟡🟠
Implementation of Bus priority measures		🟡	🟢🟡	🟢🟡	🟢🟡		🟢
Improvements to ferry terminal and express services built at ferry terminal				🟡	🟡		🟢🟡
Network optimisation (e.g. reduce speeds, smart technologies)	🟢	🟢🟡🟠	🟢	🟡🟠	🟡🟠	🟢🟡🟠	🟡
Travel demand management measures		🟢🟡	🟢🟡	🟢🟡	🟢🟡	🟢	🟢
Transport orientated development is promoted along key public transport routes			🟡	🟡	🟢		🟢
Developers contribute to public transport through collaborative design and provision arrangements		🟡	🟡	🟡			🟢
Additional land use planning interventions			🟡	🟡	🟢🟡		
Implementation of high capacity public transport network between Frankton and Queenstown				🟡	🟠		🟡
Additional bridge over Shotover River and Kawarau River			🟡		🟡	🟡	🟡
Freight optimisation and improvements						🟢🟡🟠	🟢🟡🟠

🟢 Short term interventions (2019-2024) 🟡 Medium term interventions (2024-2030) 🟠 Long term interventions (2030-2050)

5.2 Multi Criteria Analysis

A multi-criteria analysis (MCA) framework was developed to assess each of the long list programmes. The MCA provides an assessment of each programme against the investment objectives, and the risks and opportunities of each programme. The MCA scoring used to determine programme performance against each of the criteria is shown in Figure 21.**Error! Reference source not found.**

Figure 21 Multi Criteria Analysis Scoring

✓✓✓	Substantial positive effect
✓✓	Moderately positive effect
✓	Minor positive effect
-	Neutral
×	Minor adverse effect
××	Moderate adverse effect
×××	Substantial adverse effect

The project team presented the seven long list options to stakeholders for discussion and assessment at a facilitated workshop in early 2019. This presentation included a preliminary assessment on how each option performed against the project investment objectives, masterplan outcomes, and secondary objectives such as, the affordability of each option and qualitative assessments against social, environmental, and risk criterion.

Stakeholders reviewed the seven long list programme options and identified the programme options that resonated most with them, together with specific interventions from other programmes that they considered important inclusions to the final short-listed programmes.

A summary of the long list assessment results is provided in Table 19 below. Further details of the long list assessment exercise and results can be found in Appendix F - Long List Option Descriptions and Assessment.

Table 19 Long List Assessment Programme Options

No.	Description	MCA Outcome	Rationale for inclusion/exclusion
1	Do minimum /Planned investments	► Carried forward as comparator	This option was short-listed as 'business as usual' and carried forward as a comparator. The interventions of this programme are included in all other short list programme options. This option was scored against the investment objectives as follows: • Reliability & Travel Time - Active Modes: **1** - Public Transport: **1** - General Traffic: **-2** • Safety: **-1** • Multi-Modal Access & Use: **-1** • Community Severance/Liveability: **-2**
2	Community access and safety	Not carried forward	Option 2 was not carried forward to the short list, as it was perceived as not investing enough in public transport improvements to encourage public transport mode shift. However, some active mode and community focus elements of option 2 were added to option 3 due to their favourability to the wider

No.	Description	MCA Outcome	Rationale for inclusion/exclusion
			group. This option was scored against the investment objectives as follows: • Reliability & Travel Time - Active Modes: **3** - Public Transport: **1** - General Traffic: **-2** • Safety: **2** • Multi-Modal Access & Use: **1** Community Severance/Liveability: **2**
3	Public transport (bus prioritisation) and active modes	▶ Carried forward	Stakeholders supported this option due to its focus on public transport and active modes. The provision of bus priority on key corridors was a key feature, as was the associated lifestyle and health benefits that combined investment in public transport and active modes encourage. This option was expanded for the short list option assessment to include trackless trams or other high capacity public transport with prioritisation within 10 years. This option was scored against the investment objectives as follows: • Reliability & Travel Time - Active Modes: **3** - Public Transport: **2** - General Traffic: **-1** • Safety: **2** • Multi-Modal Access & Use: **2** Community Severance/Liveability: **2**
4	Mass transit within ten years and active modes	▶ Carried forward	This option was seen to provide a quick and effective solution to congestion and multi-modal access issues (gondola within 10 years), and had an active modes focus that was integrated with the mass transit facilities. This option was scored against the investment objectives as follows: • Reliability & Travel Time - Active Modes: **2** - Public Transport: **2** - General Traffic: **-1** • Safety: **1** • Multi-Modal Access & Use: **2** Community Severance/Liveability: **2**
5	Public transport (mass transit within 20- 25 years) and active modes	Not carried forward	This option was favoured for its mass transit elements. However, stakeholders assessed this option as not meeting public transport needs within ten years. Positive elements of this option such as high capacity public transport was added to Option 3. This option did not proceed to the short list. This option was scored against the investment objectives as follows: • Reliability & Travel Time - Active Modes: **2** - Public Transport: **2** - General Traffic: **-1** • Safety: **2**

No.	Description	MCA Outcome	Rationale for inclusion/exclusion
			• Multi-Modal Access & Use: **3** Community Severance/Liveability: **2**
6	Lane, parking and bridge capacity increase	Not carried forward	This option did not meet the safety, community connectedness and access (multi-modal) investment objectives so was not carried forward. Freight task provisions in new developments were favourable and cut across a number of programmes, and will be incorporated into the short list programme options. This option was scored against the investment objectives as follows: • Reliability & Travel Time - Active Modes: **2** - Public Transport: **2** - General Traffic: **2** • Safety: **-2** • Multi-Modal Access & Use: **-2** Community Severance/Liveability: **-2**
7	Do maximum	Not carried forward	The do maximum option was excluded as it was unaffordable and costs would be unsustainable. This option was scored against the investment objectives as follows: • Reliability & Travel Time - Active Modes: **2** - Public Transport: **3** - General Traffic: **2** • Safety: **-1** • Multi-Modal Access & Use: **-1** Community Severance/Liveability: **-1**

Three long list programme options of the Te Kirikiri Frankton ITPBC were carried forward to the short list for further investigation. These were programme options 1, 3 and 4.

5.3 Programme Short List

Programme options 1, 3 and 4 of the Te Kirikiri Frankton ITPBC were refined and shortlisted based on the workshop two assessment and feedback from stakeholders. Detailed information about these programmes is contained in Appendix G - Short List Options.

For the purposes of understanding the sequencing of investment for each programme option, the project team grouped the interventions of each programme into three timeframes. The short term (1 to 5 years), medium term (6 to 10 years) and long term (11 to 30 years). The timings of interventions for each short list programme are identified below and can be found in Appendix G - Short List Options.

5.3.1 Option 1: Do Minimum

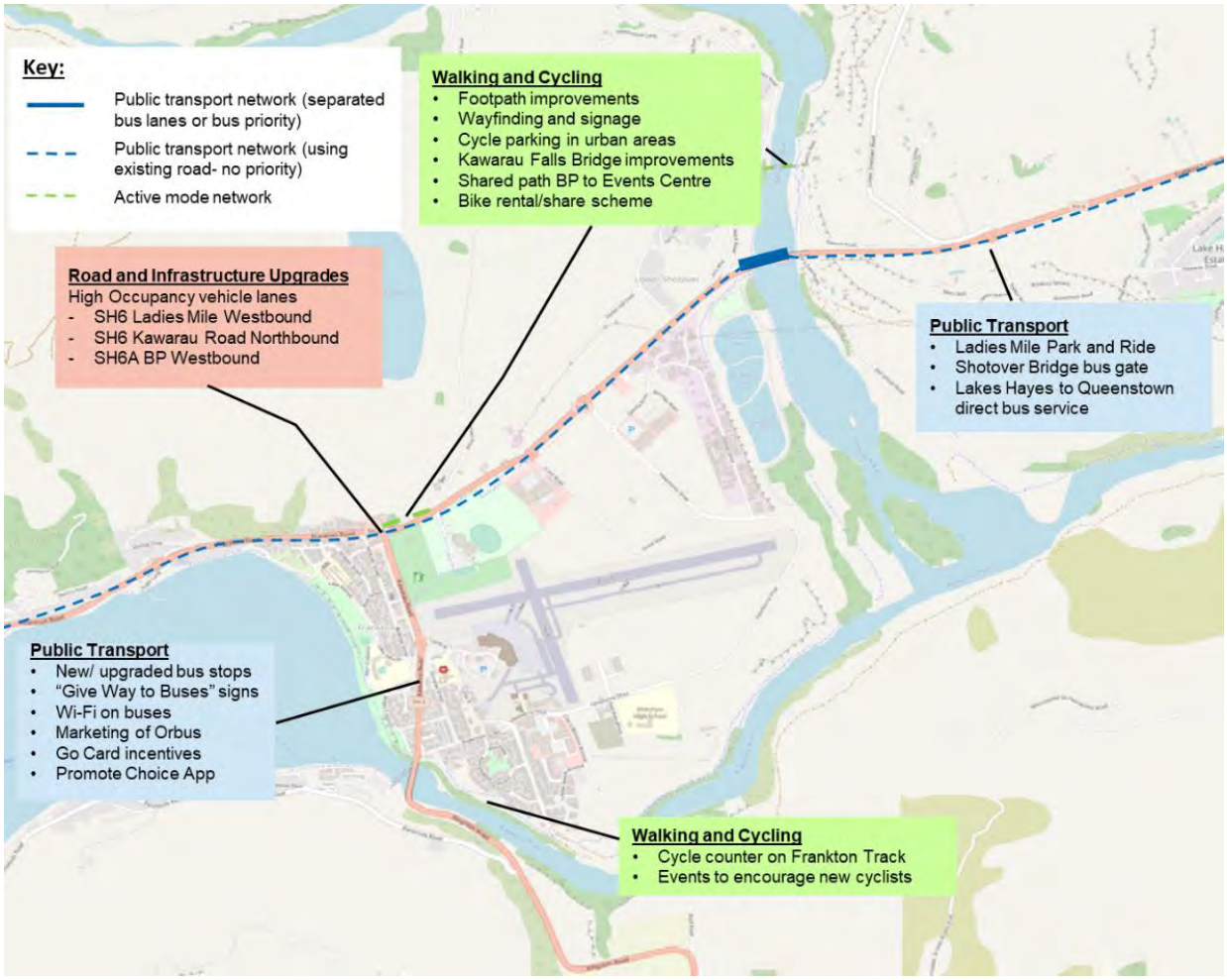
The base case or do minimum for the Te Kirikiri Frankton ITPBC is described as planned or funded investments[47]. There are no interventions planned in the medium and long-term for the do minimum programme option. Some of the interventions noted below are outside the project area and have not been included in the cost estimate but have been included for context.

[47] Sourced from the NZ Transport Agency via email 14th June 2019.

Short Term 0-5 Years

- High occupancy (bus prioritisation) vehicle lanes:
  - SH6 Ladies Mile westbound
  - SH6 Kawarau Road northbound
  - SH6A westbound
- Shotover Bridge bus gate
- Lake Hayes bus service to Queenstown
- A new or upgraded wharf to support upgraded ferry services
- Amenity Improvements at bus stops
- Bus Stop/footpath improvements
- Active travel wayfinding signage
- Improvements at Kawarau Falls Bridge
- Shared path SH6 and SH6A intersection to Events Centre/ Five Mile.

Figure 22 Do Minimum Programme



5.3.2 Common Short List Programme Elements (Programme 3 and 4)

Two alternative programmes have been developed which share many common elements. Programme 3 includes all short-term investments detailed in the Do Minimum, plus increased investment in public transport and active modes. In Programme 3 public transport interventions include bus prioritisation in the short-term and a trackless tram operating on a designated public transport corridor alongside State Highways 6 and 6A in the medium term (as detailed in the Frankton to Queenstown DBC).

Programme option 4 incorporates all of the do minimum investments, and similar to programme option 3 builds on these with increased investment in public transport and active modes. Programme option 4 differs from option 3 in the medium and long term where the public transport investment focuses on a gondola service linking Lake Hayes Estate, Frankton and the Queenstown Town Centre.

Common interventions for both programmes 3 and 4 include:

Short Term (2019-2023)

- Bus priority implemented in study area
- Improved information provision through real time information
- Reduce speed limits on State Highway 6 (Kawarau Falls-Quail Rise)
- Increased number of safe crossings on and adjacent to arterial roads
- Walking and cycling education programmes
- Shared path to Jack's Point including new active mode bridge over Kawarau River
- Improve active mode connection between Quail Rise and Frankton Flats
- Safety promotion and education campaigns in the community
- Parking policy implemented.

Medium Term (2024-2028)

- Signalise the State Highway 6 and Hawthorne Drive intersection
- Orbital bus route and bus lanes built throughout the study area (trial could potentially occur in the short term)
- Public transport facilities improvements
- Bus priority on Humphrey Street to connect Remarkables Park and the airport
- Development of Park & Ride facilities near Boyd Road, south of Kawarau River
- Commuter hub is relocated and a regional bus hub established
- Walking network upgrades at public transport interchanges and in areas of growth (Quail Rise)
- Robertson Street prioritised for active modes
- Lake Link - Direct active mode access and wayfinding (Remarkables Park and airport to the lakefront)
- Re-align Luca Place to accommodate Lake Link
- Relocation or reconfiguration of hospital and St John's Ambulance site
- Require new developments to provide accessible facilities to support public transport services
- Minimise new development parking requirements
- Transport orientated development along key public transport routes
- Freight loading zones in new commercial developments.

Long Term (2028-2048)

- The public transport services, routes, and frequency are upgraded
- Provide a new potential new public transport bridge (with active mode connections) over the Shotover River (one way). This is dependent on level of demand for public transport in 2030-50
- Potential dedicated public transport bridge over the Kawarau River. This is dependent on level of demand for public transport in 2030-50
- Walking routes to public transport facilities upgraded
- New developments have high quality walking and cycling facilities.

5.3.3 Programme Option 3: High Capacity Public Transport and Active Modes

Programme Option 3 includes all short-term investments detailed in the Do Minimum, plus the common programme option elements as listed in section 5.3.2 and then additional increased investment in public transport and active modes.

Public transport interventions include bus prioritisation in the short-term and a trackless tram operating on a designated public transport corridor alongside State Highways 6 and 6A in the medium term (within 10 years)[48].

The Frankton active mode network is progressed with investment in high quality connections between key land uses. Two active mode bridges across the Kawarau River provide improved access for cyclists and pedestrians to Te Kirikiri Frankton. A direct active mode connection is provided between the airport and the lakefront to connect ferry services via a shared path and bridge over SH6.

The public transport and active modes investments will improve access to multiple modes of transport for residents and tourists. Travel demand management initiatives and transport oriented development land use planning accompany these improvements to encourage a reduction in single occupancy vehicle use.

Medium Term (2024-2028)

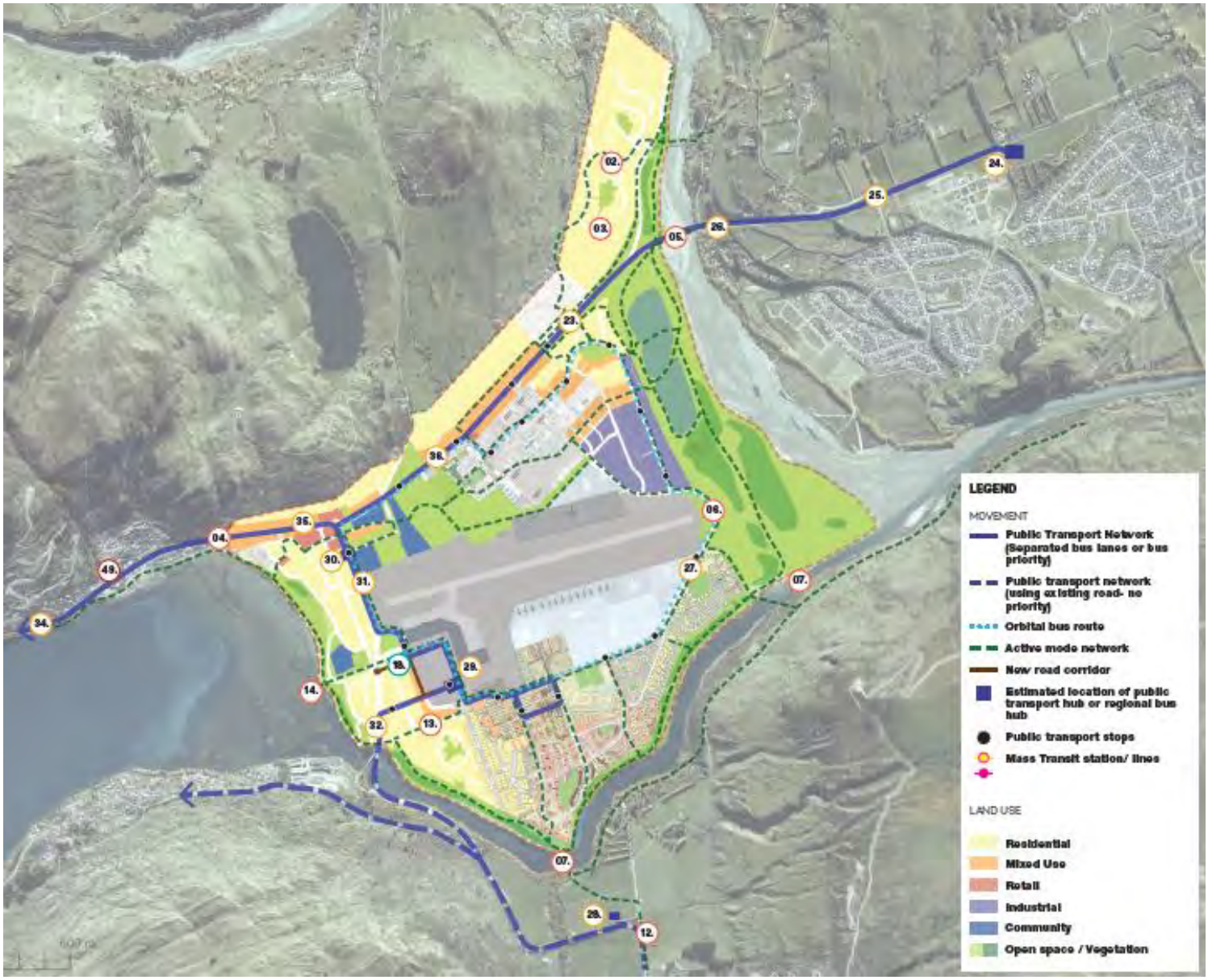
- Trackless tram (ground base mass transit) services on key routes State Highway 6 and State Highway 6A within 10 years. Note – the analysis and justification for the High Capacity Public Transport options is being undertaken through another project, the Frankton to Queenstown SSBC
- Bus priority at State Highway 6 and State Highway 6A intersections
- Public transport priority on Frankton Road/State Highway 6A
- State Highway 6/Kawarau Road public transport priority lanes
- New transport stops/interchanges are built along key arterials

Long Term (2029-2048)

- High capacity public transport network services expanded (based on demand)

[48] This option assumes that a typical 60-70 person bus will not meet the capacity requirements in the long term if growth projections for Queenstown and surrounding areas are realised

Figure 23 Programme Option 3: Public Transport and Active Modes



5.3.4 Programme Option 4: High Capacity Public Transport - Gondola and bus services - within 10 Years and Active Mode Investment

Programme option 4 incorporates all of the do minimum investments, and similar to programme option 3 builds on these with increased investment in public transport and active modes. Programme option 4 differs from option 3 in the medium and long term where the public transport investment focuses on a gondola service linking Lake Hayes Estate, Frankton and the Queenstown Town Centre. This could also be extended into growth areas if/when demand supports this in the longer-term. A travellator between the proposed Queenstown Events Centre and Queenstown Airport public transport stations also forms part of programme option 4.

Ferry service and infrastructure improvements complement the gondola mass transit service from years 5 to 10. In programme option 4 ferry investments commence in years 1 to 5 as the Te Kirikiri Frankton wharf and ferry terminal are upgraded. This water-based public transport service will extend to a Quayside terminal in the medium term. Ferry services are proposed to complement the gondola mass transit network and it is anticipated that these services would not impact the level of demand for a mass transit option.

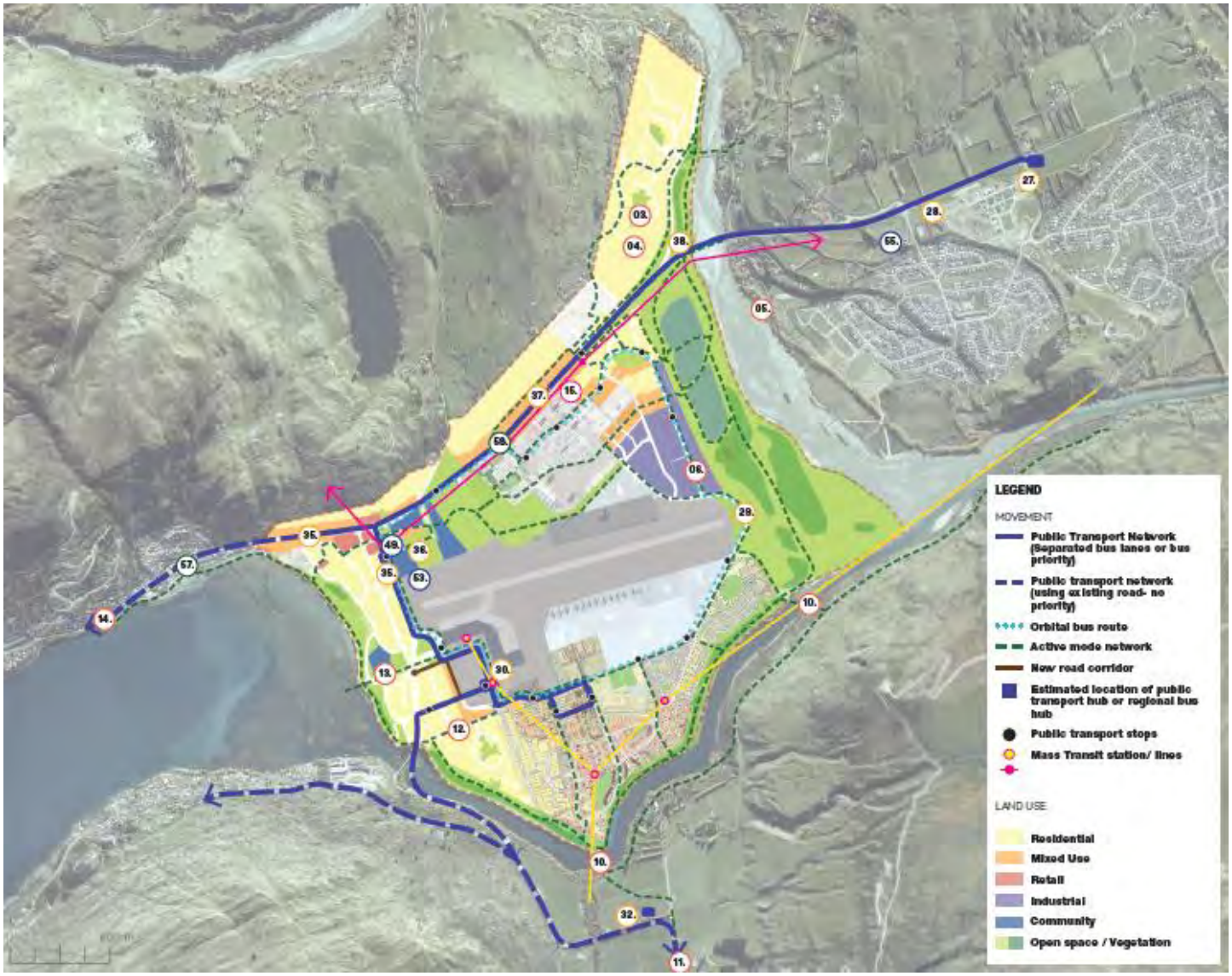
Medium Term (2024-2028)

- Gondola service linking Lake Hayes Estate, Frankton and Queenstown
- Travellator between Queenstown Event Centre gondola station and Airport
- Development of Park & Ride facilities north of the Shotover River, and in feeder areas of Jack's Point and Arrowtown
- Intensification around proposed mass transit stations

Long Term (2029-2048)

- Gondola service can be expanded into new growth areas
- New transport stops/interchanges are built along key arterials as demand necessitates

Figure 24 Programme Option 4: Public Transport and Active Modes



5.4 Short List Programme Option Assessments

The three short list programme options were tested with stakeholders at a third workshop to determine their effectiveness using a three-tier multi-criteria analysis method similar to the one used to refine the long list programme options. This method saw each programme option assessed against the Te Kirikiri Frankton ITPBC investment objectives, environmental and social impacts, cost, constructability and operations criteria.

The results of the short list programme options assessment are summarised in Table 20 and Table 21. The scoring system used is described in **Error! Reference source not found.** referenced earlier in Part B of this ITPBC.

Table 20 Short List Programmes MCA Assessment Summary- Criteria One Investment Objectives

Criteria 1: Investment Objective	Baseline - Do Minimum	Programme 3	Programme 4
Investment objective 1: Reduce severance, transport effects on the environment, and improve the liveability and attractiveness of Frankton			
KPI 1.1 Community accessibility (severance)	××	✓✓	✓✓
KPI 1.2 Air and water quality (environment)	××	✓✓	✓✓
KPI 1.3 Quality of Life (liveability)	×	✓✓	✓✓
KPI 1.4 Visitor gateway (attractiveness)	××	✓✓	✓✓
Investment objective 2: Improve access to and use of multi-modal transport options for people of all ages and abilities			
KPI 2.1 Frankton households within 800m of high frequency and convenient travel choices	××	✓✓	✓✓
KPI 2.2a Active modes as a percentage of all travel movements	-	✓✓	✓✓
KPI 2.2b Public transport as a percentage of all travel movements	✓	✓✓✓	✓✓✓
Investment objective 3: Provide safe transport choices and improve safety perception			
KPI 3.1 Reduce deaths and serious injury crashes (safe transport choices)	×	✓✓	✓✓
KPI 3.2 Reduce number of active mode crashes in study area (safe transport choices)	×	✓✓	✓✓
KPI 3.3 Improve community perception of safety (safety perception)	×	✓✓	✓✓
Investment objective 4: Improve active mode network connectivity and comfort			
KPI 4.1 Connected network for active modes (active mode network)	××	✓✓	✓✓
KPI 4.2 Level of Service rating for active modes network (comfort)	-	✓✓	✓✓
Investment objective 5: Improve transport system reliability and travel times			
KPI 5.1 Average travel times at peak times between key locations (travel time reliability)	-	✓✓	✓
KPI 5.2 Improve the attractiveness of public transport by reducing travel time difference between public transport and general traffic (travel time)	-	✓✓	✓

Table 21 Short List Programmes MCA Assessment Summary- Criteria Two and Three

Criteria 2 and 3: Environmental and social impacts and cost, constructability and operations	Baseline - Do Minimum	Programme 3	Programme 4
Criteria 2: Environmental and Social Impacts			
Landscape	×	×	××
Visual amenity	×	×	××
Air quality	××	✓	✓✓
Water quality and ecology	×	✓✓	✓✓
Noise	×	✓	✓
Cultural	-	-	-
Archaeological and built heritage	-	-	-
Visitors	×	✓	✓✓✓
Human health	-	✓	✓
Public and stakeholders	××	✓✓	✓✓
Land	✓✓	××	××
Criteria 3: Cost, constructability and operations			
Constructability	✓✓✓	×	××
Technical feasibility	✓✓	×	×
Maintainability	✓✓	×	×
Affordability	✓✓✓	××	×××
Costs: High level CAPEX estimate (including land acquisition)	Approximately $10M	$295M	$366M

5.4.1 Investment Objectives Assessment

As shown above, programme options 3 and 4 both meet the investment objectives and contribute towards the KPIs. There are three KPI's where programme option 3 scores marginally better than programme 4; *public transport as a percentage of all travel movements, average travel times at peak times between key locations and reducing travel time difference between public transport and general traffic.* Programme option 3 (trackless tram) is better able to cater for daily commuter travel movements within Te Kirikiri Frankton due to the higher number of stops and easy linkage between bus services. The gondola proposed in programme 4 is expected to deliver some travel time savings to current services, but detailed analysis of the travel comparison with trackless tram or a dedicated (prioritisation/segregation) bus service is not currently available.

5.4.2 Environmental and Social Impacts Assessment

The environmental and social impacts assessment suggest that programme option 4 is likely to present greater impacts to the landscape and visual amenity within Te Kirikiri, given the vertical infrastructure requirements needed for a gondola. A comparative assessment of the impacts of the gondola and trackless tram options for the entire route to Queenstown is not completed and will need to be taken into account when assessing the proposed mass transit solutions within Te Kirikiri Frankton.

The gondola would likely deliver greater air quality benefits and could become a significant attraction for visitors. Given that the airport passenger arrivals are expected to increase over the years, an attractive 'visitor' targeted transport mode could result in significant mode shift for tourist movements between Te Kirikiri Frankton and Queenstown. This could be achieved through either the gondola and trackless tram options so long as the connections are manageable.

5.4.3 Cost, Constructability and Operations Assessment

The Do Minimum option achieves the best score, given that it requires the least amount of physical infrastructure changes and focuses on optimising the existing transport network by providing minor to moderate upgrades where required. There are generally more risks involved with programme options 3 and 4. Programme option 4 in particular will likely have more constructability issues, and will be more expensive to deliver. However, both options are considered feasible subject to more detailed technical investigations.

5.4.4 Assessment Summary

Both programme options 3 and 4 score relatively well against the investment objectives and KPI's. The differentiating factor between the two short list options was the type of mass transit system proposed. The relative costs and benefits of the two mass transit solutions requires further investigation before a decision can be made on the recommended solution. It is therefore suggested that the common elements of programmes 3 and 4 should be progressed as the recommended option for the Te Kirikiri Frankton ITPBC.

These programmes result in substantial investment in active mode infrastructure in the short to medium term and high capacity public transport systems in the medium to longer term. These investments aim to improve access to multi-modal transport options, whilst also improving safety, community connectedness, and travel time outcomes when compared against the base case/Do Minimum programme.

The feedback received from stakeholders during the workshop 3 short list assessment process informed the selection of the Te Kirikiri Frankton ITPBC recommended option detailed in section 6.

6. Recommended Programme

6.1 The Recommended Programme

The recommended programme of the Te Kirikiri Frankton ITPBC is the common elements of programme option 3 and programme option 4, and either a ground based mass transit system, or a gondola. An assessment of the Mass Transit options is being is being undertaken at the time of issuing this report and has confirmed a need for a high capacity public transport solution for the Wakatipu Basin within the next ten years. It is also possible that a mass transit solution within this timeframe or shortly thereafter depending on residential and commercial growth patterns and timings. The recommended option proposes significant investment in high capacity public transport and the active mode network to improve the attractiveness and viability of these modes of transport versus private vehicle use.

It is recommended that increased residential development occurs within the study area over and above what is currently modelled. It is recommended that consideration should be given to accommodating future growth as a form of transit oriented development, which would support the demand for a high capacity public transport system and proposed active mode infrastructure.

Stakeholder feedback around the proposed phasing of transport interventions has informed the development, and priorities of the recommended programme. The proposed interventions that form the recommended programme option have been separated into three time horizons.

1. Short-term (2019- 2024)
2. Medium-term (2024-2028)
3. Long-term (2029- 2050)

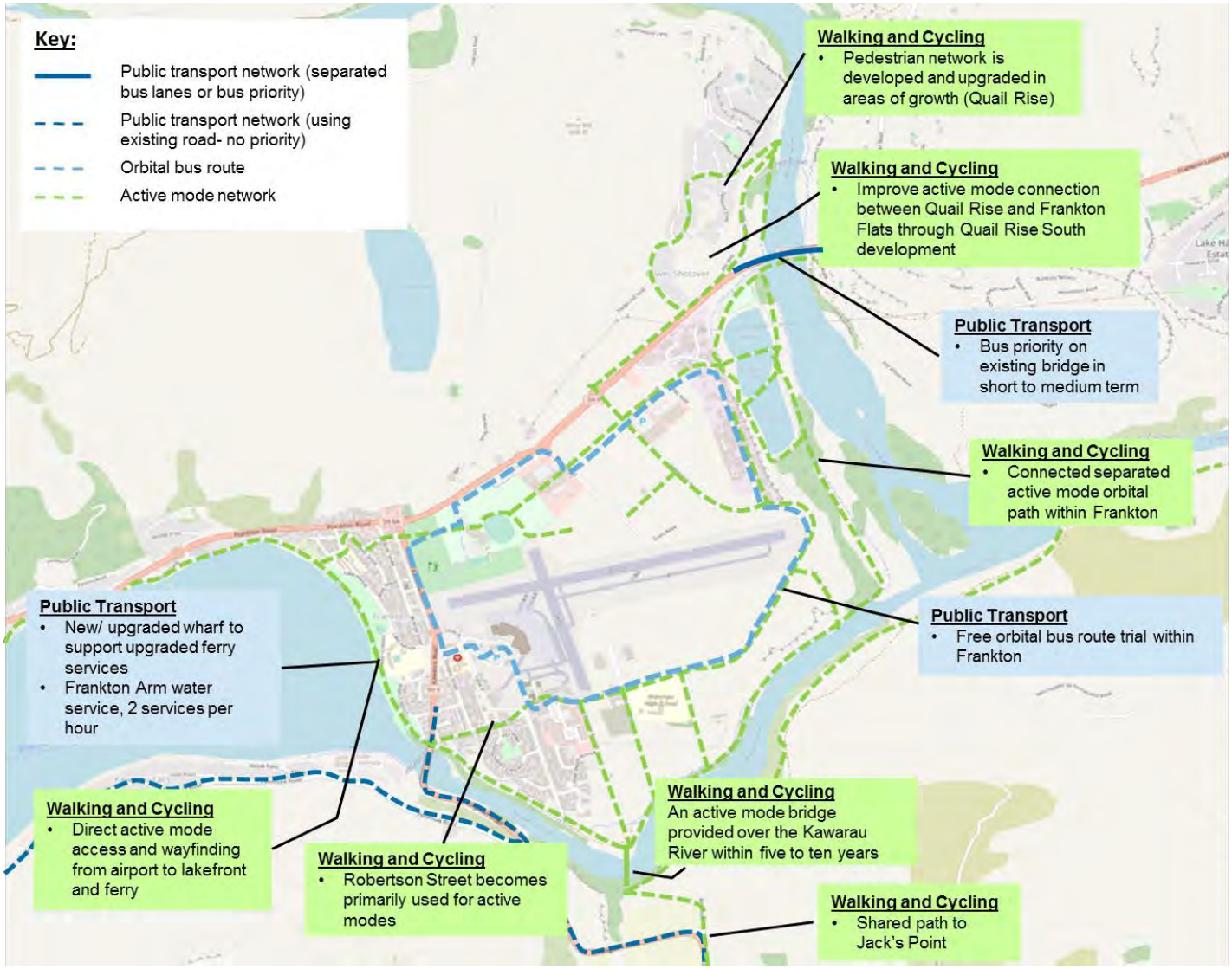
The following section outlines the proposed phasing of the major interventions that form the recommended programme.

Short-term interventions (2019- 24)

The short-term interventions for the recommended programme focus on immediate improvements and upgrades to the active mode and public transport networks. Some of the key short-term interventions include the implementation of a trial orbital bus service in Te Kirikiri Frankton. This orbital bus would link the key activity precincts and the separated active mode orbital path which circulates Te Kirikiri Frankton. Both initiatives are likely to improve the uptake of public transport and active modes.

SHORT-TERM INTERVENTIONS DETAILED DESCRIPTIONS	
Public transport • Bus prioritisation along SH6 and SH6A • Increased marketing of the Orbus network • Operational improvements to Orbus to provide more direct and frequent services and connections • Improved information provision for commuters through apps providing real time information • A new ferry terminal and new or upgraded wharf is constructed to support upgraded ferry services from Frankton	• Orbital bus service introduced in Frankton to link the key activity precincts of Five Mile, Frankton Village and the Queenstown Events Centre, Queenstown Airport and Kawarau Falls, Remarkables Park and the Shotover Delta. This service would be a trial service in the short term and utilise bus only lanes or bus priority measures on key corridors in the medium term • Provide facilities to improve comfort and accessibility for pedestrians and public transport users. For example provisions for more seating, covered bus stops, improved bus stop lighting and trees for shading.
Network changes • Reduce speed limits on State Highway 6 between the Kawarau Falls Bridge and Quail Rise South to 50 km/h	• Road network optimisation completed to better accommodate buses on the local network.
Walking and cycling • Increased number of safe crossings on and adjacent to arterial roads near public transport stops. For example on State Highway 6 near QEC and Five Mile • Improve active mode connection between Quail Rise and Frankton Flats through Quail Rise south development • Shared path to Jack's Point and basin • Connected separated active mode paths within Frankton • Provide good lighting on key active mode routes	• Pedestrian network is developed and upgraded in areas of growth (Quail Rise) • Direct active mode access and wayfinding from the airport to the lakefront and ferry services. This comes in the form of a bridge link and pathway in medium term. Wayfinding implemented in the short-term • Provide good lighting on key active mode routes • Wayfinding and signage improvements are made at key visitor entry points and roundabouts in Frankton • An active mode bridge provided over the Kawarau River
Travel demand management • Safety promotion and education campaigns in the community. This includes education campaigns about safe walking and cycling routes to and from schools in Frankton	• High occupancy vehicle promotion • Parking policy implemented • Workplace and school travel planning initiatives in the community

Figure 25 Recommended Short-term Interventions



Public Transport
- Increased marketing of the Orbus network
- Operational improvements to Orbus to provide secure service connectability at Frankton Hub
- Timetable adjustments to suit commuters
- Improved information provision through QR codes and apps providing real time information
- Work with event promoters to include Orbus travel
- GoCard incentives at crucial travel times
- New areas of intensification are provided with increased services. Eg. Henley Farm to Queenstown via Frankton
- Upgrade of public transport facilities to consider accessibility and weather
- Match public transport services with events, schools and employment hubs

Walking and Cycling
- Pedestrian network is developed across the district to connect with Frankton and upgraded in areas of growth
- Frankton cycling network is completed
- Walking and cycling education programmes
- Incentivise active travel with public transport credits.
- Increased number of safe crossings on and adjacent to arterial roads near public transport stops

Travel Demand Management
- Safety promotion and education – safe walking and cycling routes to schools
- Workplace, airport and school travel planning
- Parking policy in line with strategy implemented/traveller information improved
- Public transport services are heavily advertised and prices reduced
- High occupancy vehicle promotion

Network Changes
- Reduce speed limits on SH 6 between Kawarau Falls Bridge and Quail Rise South to 50 km/h
- Road network optimisation to better accommodate buses on the local network

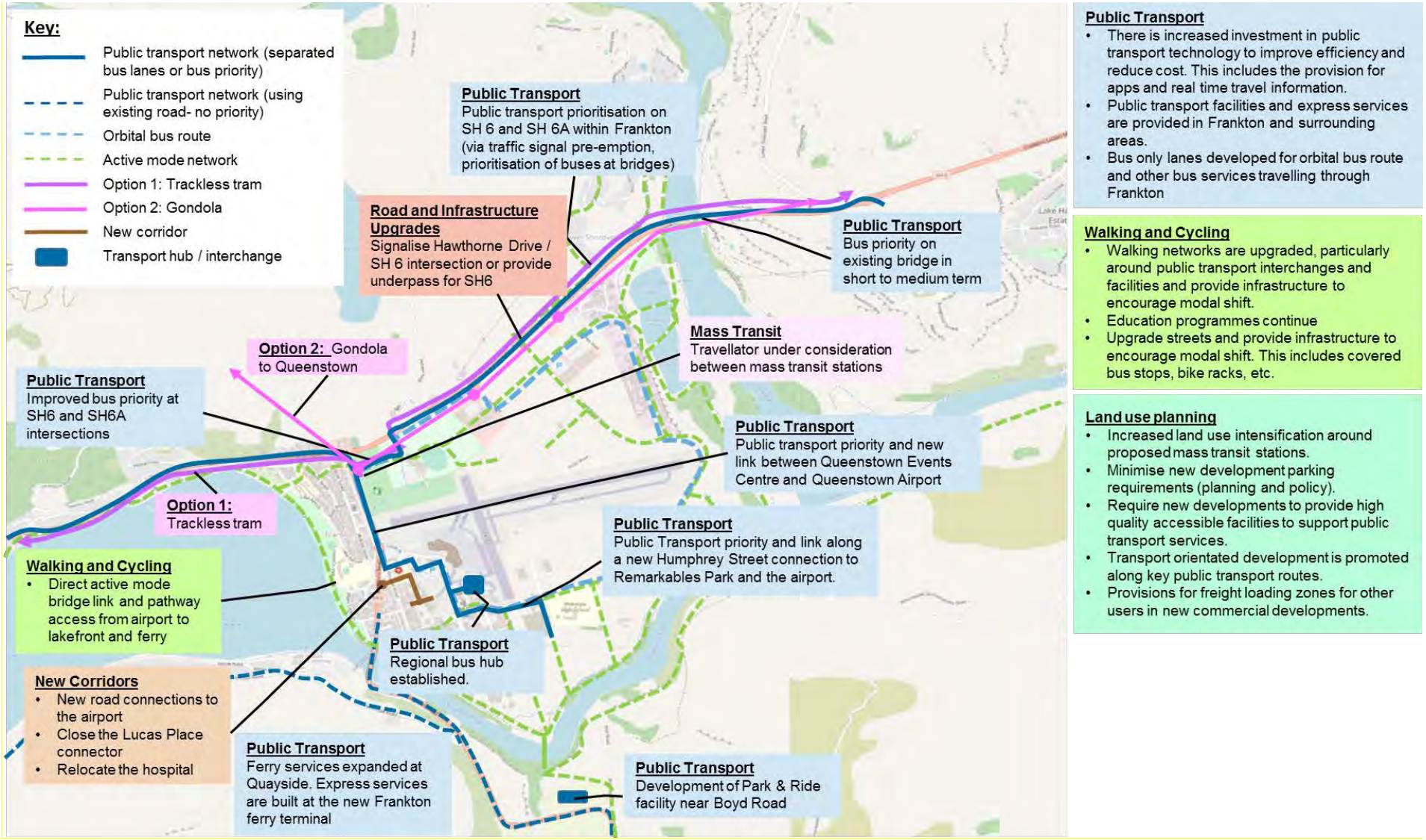
Medium-term interventions (2024- 28)

The medium-term interventions for the recommended programme build on the public transport, active modes and travel behaviour change investments implemented in the short-term. A number of the medium-term interventions target improving the long-term capacity and accessibility of the active mode and public transport networks in the region. These interventions include the construction of significant high capacity public transport infrastructure to cater for future resident and visitor growth, and as such, have a high capital cost.

MEDIUM-TERM INTERVENTIONS DETAILED DESCRIPTIONS	
Public Transport • Bus prioritisation implemented throughout the study area. This includes traffic light signal pre-emption, and intersection priority for buses on the rest of State Highway 6 within Frankton, on Hawthorne Drive • Improved bus priority at State Highway 6 and State Highway 6A intersections and corridors • There is increased investment in public transport technology to improve efficiency and reduce cost. This includes the provision for apps and real time travel information • Public transport facilities and express services are provided in Frankton and surrounding areas	• Public Transport priority and link along a new Humphrey Street connection to Remarkables Park and the airport • Public transport priority and new link between Queenstown Events Centre and Queenstown Airport • Development of Park & Ride facilities near Boyd Road, south of Kawarau River, and adjacent to new active mode bridge. This facility to be implemented in conjunction with the active mode bridge crossings over the Kawarau River • The Public Transport commuter hub is relocated and a regional bus hub established • Bus only lanes developed for orbital bus route and other bus services travelling through Te Kirikiri Frankton.
High capacity public transport • Option 1: Trackless tram (ground base mass transit) services on key routes State Highway 6 and State Highway 6A completed within 10-years. A trackless tram has been assumed as ground based mass transit system of choice by the project team. OR	• Option 2: A gondola service linking Frankton and Queenstown Town Centre and Frankton potentially to Lake Hayes Estate. There is a privately funded Gondola system being investigated that would connect Remarkables Park with the Remarkables ski field and also potentially connect Lake Hayes Estate and the airport. • A travellator between the proposed Queenstown Events Centre and Queenstown Airport public transport stations also forms part of programme option 4.

MEDIUM-TERM INTERVENTIONS DETAILED DESCRIPTIONS	
New corridors • Signalise the State Highway 6 and Hawthorne Drive intersection to provide safe and controlled crossing facilities for pedestrians. • New Humphrey Street Link to provide a more direct connection from SH6 for vehicles travelling to and from the south. This will improve access for all modes including public transport and freight.	• New road connections to the airport including intersection upgrades / close the Lucas Place connector. This is dependent on achieving the master plan and hospital / St Johns relocation or realignment.
Walking and cycling • Walking networks are upgraded, particularly around public transport interchanges and facilities and provide infrastructure to encourage modal shift • Education programmes continue	• Robertson Street is upgraded and prioritised for active modes • Upgrade streets and provide infrastructure to encourage modal shift. This includes covered bus stops, bike racks, etc. • Direct active mode access and wayfinding from the airport to the lakefront and ferry services. This comes in the form of a bridge link and pathway in medium term.
Land use planning • Increased land use intensification around proposed mass transit stations • Minimise new development parking requirements (planning and policy)	• Require new developments to provide high quality accessible facilities to support public transport services • Transport orientated development is promoted along key public transport routes • Provisions for freight loading zones for other users in new commercial developments.
Road and infrastructure • Signalise the State Highway 6 and Hawthorne Drive intersection to provide safe and controlled crossing facilities for pedestrians.	

Figure 26 Recommended Medium-term Interventions



Long-term interventions (2029- 50)

The long-term programme direction is for years 11 to 30 and beyond. During this period the land use, technology, predicted state of the network and public opinion is more uncertain. Interventions in this time phase focus on extending the reach of the networks that were constructed in the medium-term. This includes providing new areas of intensification with increased services, and access to a range of transport choices.

LONG-TERM INTERVENTIONS DETAILED DESCRIPTION	
Public transport • New transport interchanges are built along key arterials near existing activity nodes where possible • The services, routes, and frequency are upgraded • New areas of intensification are provided with increased services and more interchanges are built	• Provide a new potential new public transport bridge (with active mode connections) over the Shotover River (one way). This is dependent on the level of demand for public transport in 2030-50 • Potential dedicated public transport bridge over the Kawarau River. This is dependent on level of demand for public transport in the longer term.
High capacity public transport • Option 1: Ground based high capacity public transport is expanded (dependent on demand)	**OR** • Option 2: Gondola service can be expanded into new growth areas (dependent on demand – not included in current cost estimates).
Walking and cycling • Walking routes to public transport facilities continue to be upgraded and amenity improved. Continuous and direct paths are provided between residential areas, community facilities and activity nodes	• The pedestrian network is developed across the district to connect with Frankton and is upgraded in areas of growth such as Quail Rise.

Figure 27 Recommended Long-term Interventions

Public Transport

- New transport interchanges are built along key arterials near existing activity nodes where possible.
- The services, routes, and frequency are upgraded
- New areas of intensification are provided with increased services and more interchanges are built

Walking and Cycling

- Walking routes to public transport facilities continue to be upgraded and amenity improved. Continuous and direct paths are provided between residential areas, community facilities and activity nodes.
- The pedestrian network is developed across the district to connect with Frankton and is upgraded in areas of growth such as Quail Rise.

6.2 Alignment with the Te Kirikiri Frankton Masterplan Outcomes

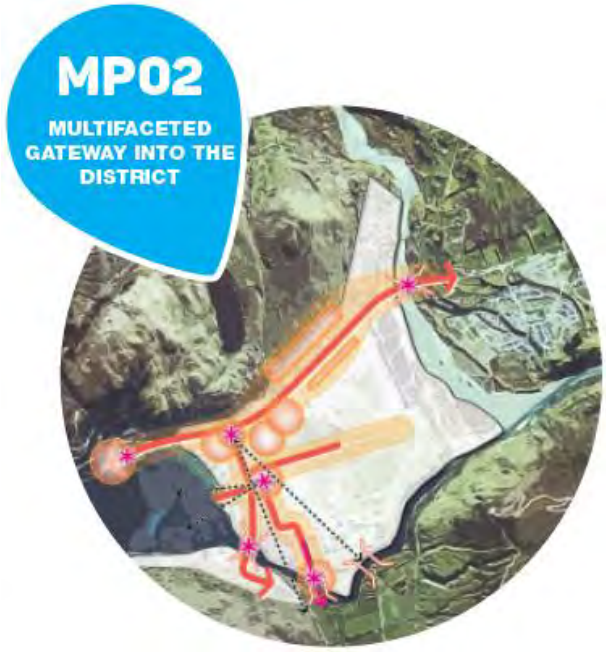
A key focus of the recommended programme is to support the implementation of the Te Kirikiri Frankton masterplan vision and outcomes, as demonstrated in this section.

6.2.1 Masterplan Outcome 01: Integrating with the water's edge

The recommended option supports this masterplan outcome by:

- Improving access for the community to the water via a proposed direct active mode link connecting the airport with the lakefront, this includes provision of bridge across SH6
- Utilising the water for transportation in the form of improved ferry services and wharf facilities
- Capitalising on the amenity of the water edge for active transit by upgrading the existing trails
- Creating a safe and accessible environment, including additional implementing additional active mode crossing points throughout the area, improved wayfinding and a variety of community. workplace and school travel planning initiatives.

6.2.2 Masterplan Outcome 02: Multifaceted gateway into the district



The recommended option supports this masterplan outcome by:

- Strengthening the sense of arrival into Te Kirikiri Frankton by air, road and water. This includes improved active mode connections between neighbouring residential areas, public transport priority on SH6 and SH6A and a future mass transit system to better move people between Frankton and Queenstown.
- Recommending that intensification is applied around the gateways and mass transit hubs within Te Kirikiri Frankton in the form of transit oriented developments.
- Enhancing the outward face of Te Kirikiri Frankton along the state highways, develop Park and Ride sites on key approaches to Te Kirikiri Frankton and by making use of the water through new and improved ferry services.

6.2.3 Masterplan Outcome 03: Enhancing the local network

The recommended option supports this masterplan outcome by:

• Implementing efficient and direct connections between existing activity areas, including a free trial orbital bus services within Frankton

• Blending modes, providing choice and extending the network reach, including a regional bus hub and ferry terminal, with connections to the active mode network

• Lifting the profile of public transport and creating a public transit system that utilises the setting to enhance the experience

• Using innovation and technology to enhance the user public transport experience and the movement network, including wayfinding, the use of apps and real time travel information

• Prioritising pedestrians and cyclists in high use activity areas e.g. Robertson Street.

6.2.4 Masterplan Outcome 04: Unified and integrated urban centres

The recommended option supports this masterplan outcome by:

• Creating direct connections between the principal activity areas within Te Kirikiri Frankton, including potential use of travellator and orbital buses.

• Ensure that each of the centres provides a range of accessible social infrastructure and facilities, including street furniture, lighting and end of trip facilities such as bike parking

• Match urban form and intensity of use with transport hubs to create transit oriented development, particular in the vicinity of the key movement corridors and mass transit stations.

6.2.5 Masterplan Outcome 05: Living and growing in harmony with nature

The recommended option supports this masterplan outcome by:

Utilising the natural assets for recreation and active transport, including upgrades to the existing active mode trails.

• Improve the amenity and environmental attributes of streets and spaces.

• Inspire behavioural change to encourage greater use of modes other than the private car, with a particular focus on short trips within Te Kirikiri Frankton.

• Improve the community connection to nature by creating a range of accessible outdoor spaces

• Maximise opportunities to enhance the native flora and fauna.

6.2.6 Masterplan Outcome 06: Inclusive neighbourhoods

The recommended option supports this masterplan outcome by:

• Providing transport facilities and community spaces that create opportunities for social interaction, such as the regional bus hub and ferry terminal.

• Improve the perception of safety, through improved active mode crossing provision, particularly across the State Highway network and Shotover and Kawarau rivers.

• Provide environments that promote a healthy lifestyle, including completing the active mode network, which is separated from general traffic to encourage greater uptake of walking and cycling.

• Create independence in the community by providing accessible and safe play and recreation, including a dedicated active mode corridor between the airport and the lakefront. This active mode network will also provide improved access to schools within Te Kirikiri Frankton.

6.3 Economic Evaluation

The following table provides a summary of the economic results for the recommended project option compared against the Do Minimum. As outline in section **Error! Reference source not found.** above, these r esults consider the costs and benefits for the Frankton study area only. Additional information is provided in the Frankton Integrated Transport Programme Business Case Economic Analysis (Appendix J).

Table 22 **Summary table**

Scenario	4% discount rate	6% discount rate	8% discount rate	6% with 10 yr growth delay
NPV of Benefits	$148,434,055	$89,387,773	$61,312,585	$51,549,675
NPV of Costs (lower)	$206,128,180	$141,464,949	$120,341,193	$141,464,949
NPV of Costs (Upper)	$381,966,837	$262,142,319	$222,998,839	$262,142,319
Total NPV (lower costs)	-$57,694,125	-$52,077,176	-$59,028,608	-$89,915,274
Total NPV (upper costs)	-$233,532,782	-$172,754,545	-$161,686,253	-$210,592,644
BCR (lower costs)	0.7	0.6	0.5	0.4
BCR (upper costs)	0.4	0.3	0.3	0.2

Source: PT Skim Economics – TT Priority - Frankton

The results show that in each scenario, the costs outweigh the benefits. This is predominately because benefits are not fully realised until 2028 when the major investment in high capacity public transport is completed and operational and therefore monetised benefits been discounted significantly to 2019 values. It is likely that some form of public transport priority would be provided in the short to medium periods where practical, until demand necessitates the need for a higher capacity solution.

A 10 year growth delay will impact the realisation of benefits as it will take an additional 10 years for benefits to be fully realised.

The capital costs included costs escalations and appropriate contingencies. Maintenance costs of 1% p.a. were also included in the economic evaluation. Cost estimate information is provided in Appendix J.

6.4 Recommended Programme Assessment (IAF)

The Te Kirikiri Frankton ITPBC recommended programme has been assessed against the NZ Transport Agency Investment Assessment Framework (IAF) 2018-21 requirements. This assessment framework reflects the GPS 2018-21 (for land transport) priorities of safety, access, the environment and value for money. The IAF 2018-21 seeks to assess a projects achievement of these priorities by scoring it according to the criteria of:

- Results alignment
- Benefit Cost Appraisal (Economic Efficiency)

Results Alignment

The Te Kirikiri Frankton ITPBC recommended programme falls into the results alignment activity classes of *Public transport, rapid transit and transitional rail improvements* and *walking and cycling improvements*.

Public transport, rapid transit and transitional rail improvement activities have the potential to achieve results alignment ratings of either low, medium, high or very high. The Te Kirikiri Frankton ITPBC recommended programme achieves an IAF results alignment rating of high in this activity class because it:

- *enables a substantial increase in access to social and economic opportunities for large numbers of people along dedicated key corridors and enables transit-oriented development*

A major intervention of the Te Kirikiri Frankton ITPBC recommended option is the provision of a high capacity public transport service along the key corridors of State Highway 6 (east/ westbound and north/ southbound) in Te Kirikiri Frankton. Provision of high capacity public transport services will significantly increase access to opportunities for the residents of Frankton (2,495 people), and Frankton East (2,064 people), as well as surrounding feeder areas of Jack's Point (596 people), Lake Hayes and Lake Hayes South (4,159 people) and Kelvin Heights (1,586 people)[49]. It will also improve access to opportunities for the 2.14 million visitors[50] arriving and departing Queenstown each year via the Queenstown Airport on State Highway 6 in Te Kirikiri Frankton.

The recommended option will enable the integration between land use and transport planning through transit-oriented development. This residential infill will occur within Te Kirikiri Frankton at Remarkables Park and along State Highway 6 near the high capacity public transport stops at Quail Rise, Quail Rise South, and along the Five Mile Corridor. It is estimated the study area can accommodate between 6,100 and 8,900 additional dwellings[51] which would be approximately 5,000 additional residents in the study area. This increase in residential capacity will access to high capacity public transport corridor and transit oriented development.

Walking and cycling improvement activities have the potential to achieve results alignment ratings of either low, medium, high or very high. The Te Kirikiri Frankton ITPBC recommended programme achieves an IAF results alignment rating of very high in this activity class because it:

- *addresses a critical missing link in a strategic network connection*

The recommended option addresses critical missing links in the active mode network in Te Kirikiri Frankton. The active mode network in Te Kirikiri Frankton currently consists of just two separated walking and cycling trails, the Frankton Track and the Twin Rivers Trail. Both of these trails circumnavigate the west, south and east of the study area, and are therefore used predominantly for reactional purposes. No separated connections exist on the State Highway 6 corridor in the north or between key activity centres within Te Kirikiri Frankton.

The recommended option addresses these critical missing links by providing separated, safe active mode routes within Te Kirikiri Frankton (linking key education, commercial and retail activity centres), improved crossing facilities and direct links at locations such as the Robertson Street and between the airport and the lakefront. These measures coupled with increased residential infill in Frankton will drive the uptake of active modes for key commuter trips like journeys to work and school.

- *addresses a critical missing link in a strategic network or multi-modal interchange in major metros*

The GPS 2018 refers to main urban centres as 'major metropolitan areas.' The NZ Transport Agency identifies Queenstown as a major metropolitan area, and as a 'high growth urban area' in the IAF. As outlined above the Te Kirikiri Frankton ITPBC addresses a critical missing link in the strategic network. It also

[49] Data sources: Queenstown Lakes District Growth Projections 2018- 2048, Queenstown Lakes District Council (October 2018)

[50] Year ended 30 June 2018 passenger number.

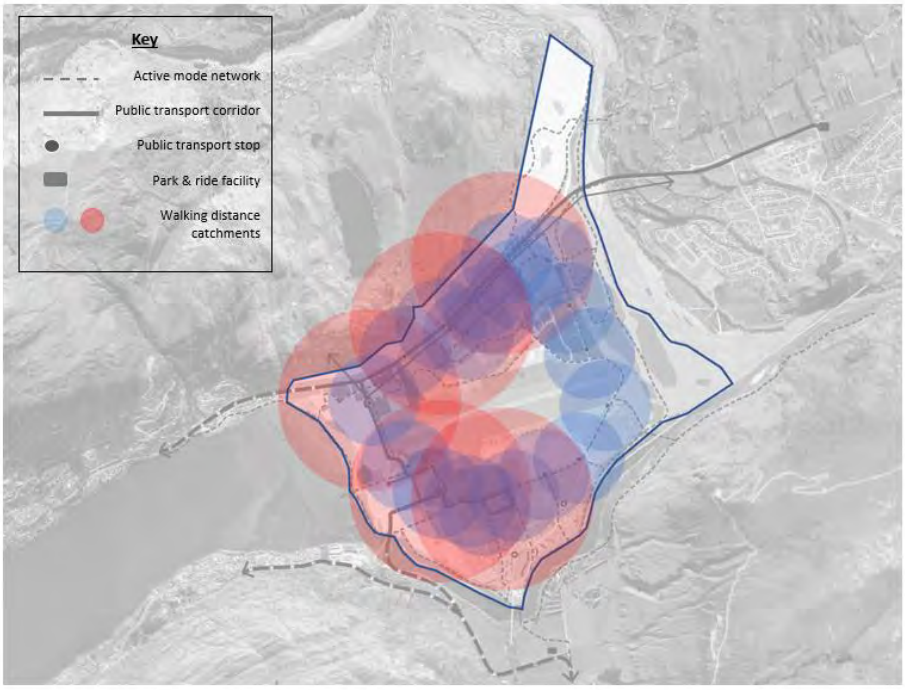
[51] Data sources: QLDC, and information gathered through the Te Kirikiri Frankton MP&ITPBC Project.

addresses a missing link in multi-modal interchange in the Queenstown major metropolitan area. Seventy nine percent of journey to work trips for Te Kirikiri Frankton and Frankton East residents are currently done by private vehicle. Contributing to this high car mode-share percentage is the lack of multi-modal interchange facilities currently in the area.

The provision for increased connectivity between active mode facilities, public transport interchanges and key activity centres in the recommended programme addresses these missing interchange links. As displayed in Figure 28 the active mode network will now provide good coverage and safe connections for residents to public transport facilities and interchanges in the study area.

Multi-modal changeover will also be encouraged in the areas immediately surrounding the study area through strategically placed park and ride facilities that connect with active mode bridges or public transport services to enter Te Kirikiri Frankton.

Figure 28 Recommended Programme-Walking Distances to Public Transport Facilities



Benefit Cost Appraisal

For the purposes of the IAF assessment Programme Options 3 and 4 were used for the Results Alignment and Programme Option 3 for the Benefit Cost Appraisal. The recommended programme for the Frankton Integrated Programme Business Case achieves IAF 2018 ratings of Very High for results alignment and low for benefit cost appraisal. The economic assessment for the programme is below a 1 Benefit Cost Ratio and does not meet the Low threshold. This result is due primarily to the high costs of the implementation of the high capacity public transport system within the project area and the benefits that were assessed to accrue within this area.

6.5 Programme Risk and Opportunity

Project partners identified risks of the programme in workshop 3 when examining the common elements of the two short list programmes. These risks will need to be managed and assessed during subsequent business case stages. It is recommended that ongoing risk assessment, including thorough risk identification, mitigation actions, and action owners, continue to be undertaken during future detailed business cases and other delivery mechanisms. The key opportunities and risks of this programme are outlined in Table 23 and Table 24. A list of risks and uncertainties for this project can be found in Appendix E.

Table 23 Recommended Programme Opportunities

Opportunity	Description	Treatment Strategy
Increased residential / commercial capacity	There is a significant opportunity for areas within Frankton to provide long term residential / commercial capacity to reduce increasing pressures on infrastructure within the Wakatipu Basin, including transport. In particular the SH6 corridor between Shotover River and Five Mile, the north-eastern areas of Frankton Flats.	There was initial support; however, this has not been formally endorsed by QLDC. Continue to engage with relevant parties to work towards formal endorsement.
Future QAC terminal development	There is an opportunity for the airport and any future terminal development to act as the unifying element, this opportunity will be different depending on the proposed location of the airport terminal and supporting infrastructure including locating a regional bus hub adjacent to the airport terminal.	Correspond with QAC to invite feedback on masterplan suggestions and their future development plans.

Table 24 Recommended Programme Risks

Risk	Description	Treatment Strategy
Overlap of adjacent projects	Overlap of adjacent projects in terms of in relation to the siting of the transport hub and determination of the preferred Mass Transit mode	Develop a recommended option that can provide the level of transport movement within and through Frankton and the masterplan can be modified for each option to achieve the masterplan outcomes
Queenstown Events Centre Masterplan	There is a risk that the QEC project objectives do not align with the Frankton Masterplan, as the QEC scope is principally concerned with the delivery of sport and recreation facilities within its boundaries and working to a much finer level of detail.	Coordination meetings have been undertaken so that where overlaps or conflicts exist, they are actively managed to avoid undue risk to each project. It is important consistent communication continues with respect to stakeholders as we work through the current programme.

Risk	Description	Treatment Strategy
Frankton and connecting area residential density	Development is not of a sufficient density to support the uptake and financial viability of mass transit within Frankton and in connecting areas.	Continue and further discussions with QLDC Planners to inform the Future Development Strategy.
Culture	There is a risk the cultural narrative and design strategy with Te Ao Marama and Aukaha to inform the masterplan is not developed.	Engage further with iwi representatives.
Landowner development preference	Landowner preference for a higher value use (mixed use/ commercial preferred) for the development of light industrial land to the north and west of the airport.	Meet with the QLDC Planning Team to determine a strategic planning approach.
Achieving Masterplan outcomes	Due to a number of factors such as changing demand for land uses, economic feasibility of individual proposed interventions (i.e. due to rising land prices) or changes tourism demand the ability to achieve the desired transport and Masterplan outcomes will be compromised.	The masterplan will need to be reviewed at regular intervals (i.e. every 3 years) to assess changes to land uses and other key influences and amend the masterplan to enable masterplan outcomes to be achieved.
Parallel business cases	The surrounding business cases may not support or delay recommendations of the Frankton ITPBC.	Continue to observe the risk and undertake ongoing communication and coordination. with related business case work streams.
Policy changes	The investment direction of the government could change through changes to the GPS	Continuous consultation and engagement with the Transport Agency to make sure the recommended programme is aligned with any changes in policy
High capacity Public Transport pricing	The pricing of a mass transit service is too high to encourage usage of regular commuters	Undertake further investigations into mass transit solutions and potential pricing models.
Financial	The clarity and availability of a funding stream for mass transit investments (for both the initial capital investment and the ongoing operation and maintenance of the investment)	Finalise cost estimates for mass transit facilities and ongoing engagement to establish possible funding stream.
Seasonal weather	The extreme seasonal weather experienced in Queenstown could constrain the number of people who choose to use active modes for journey to work and journey to school trips in winter.	Consultation with community to determine seasonal effects on transport choices. Consideration of a range of options such as improved public transport services to offer

Risk	Description	Treatment Strategy
		transport choice during extreme weather events.
Delays	Single Stage Business Cases and Detailed Business Cases and transport implementation investment is delayed	Agree appropriate resource to achieve the programme and adequately resource.

7. Programme Financial Case

7.1 Funding Arrangements

The proposed programme of works and associated costs are sizeable. It is anticipated that the NZ Transport Agency, QLDC, and the ORC will incur all costs for this programme. The Queenstown Lakes District Council is anticipated to incur costs associated with the establishment of active modes, local road improvements and supporting infrastructure for public transport such as bus shelters on local roads. The Otago Regional Council is anticipated to meet the costs of the public transport services. Infrastructure costs for public transport will be dependent on factors including the location of corridors and stops. The NZ Transport Agency is anticipated to meet the infrastructure costs associated with State Highway improvements including those to support public transport outcomes and providing subsidy for transport improvements through the National Land Transport Fund.

7.2 Indicative Cost and Programme Cash Flow

An indicative programme cost, for Programme 3, has been estimated at approximately $295 million including land acquisition, escalation and contingencies. These costs include major investments in public transport, urban realm improvements, walking and cycling infrastructure and some transport corridor realignments. The indicative cost estimate does not include the Do Minimum programme costs of approximately $10 million. The majority of these programme cost estimate includes a number of projects that have business cases currently underway for improvements in public transport, active travel and road upgrades such as the Grant Road to Kawarau Falls Bridge Detailed Business Case.

The breakdown by intervention type is shown in Table 25 below.

Table 25 Indicative Recommended Option (Programme 3) Cost Estimate by Intervention Type (includes contingency and escalation)

Cost Estimates by Intervention Type	Total
Active modes	$49,600,000
Public transport	$180,000,000
TDM	$320,000
Speed management	$320,000
Multi-modal	$40,000,000
Enable active modes and urban realm improvements	$24,000,000
Total	**$294,240,000**

Table 26 below summaries the interventions within Programme 3 (and common to Programme 4) to be completed by the end of 2024.

Table 26 Programme 3 – Interventions to be completed by end of 2024

Intervention	Activity Type	Current Business Case	Indicative Cost
Increased number of safe State Highway crossings on and adjacent to arterial roads near public transport stops	Active Modes	Grant Rd to Kawarau Falls Bridge DBC	$1,920,000
Safety promotion and education – safe walking and cycling routes to schools	Active Modes	QLDC Road Safety Promotion Programme	$160,000
New active mode bridge constructed over the Kawarau River and track to Jack's Point	Active Modes	Wakatipu Active Travel Network DBC	$11,840,000
New active travel route - A2 Shotover Bridge to SH6	Active Modes	Wakatipu Active Travel Network DBC	$3,200,000
New active travel route - A3/A4 - SH6 to Frankton Track	Active Modes	Wakatipu Active Travel Network DBC	$1,600,000
Reduce speed limits on SH 6 between Kawarau Falls Bridge and Grant Road to 50 km/h	Speed Management	BAU QLDC Speed Management Programmes	$320,000
Parking policy implemented	Travel Demand Management	BAU QLDC	$320,000
Additional active travel connections	Active Modes	QLDC/NZTA Low Cost Low Risk Programme	$480,000
Total			**$19,840,000**

Table 27 below summaries the interventions within Programme 3 (and common to Programme 4) to be completed by the end of 2028 not including High Capacity Public Transport. Table 28 below summaries the High Capacity Public Transport interventions required to be completed by the end of 2028.

Table 27 Programme 3 – Interventions completed by end of 2028 Common elements Options 3&4 (including 20% Escalation and 40% Contingency)

Intervention	Activity Type	Current Business Case	Indicative Cost
Frankton cycling network is completed (not including connections provided by developers)	Active Modes	QLDC/NZTA Low Cost Low Risk Programme for 2021-24 or Package 2 of Wakatipu Active Travel Network DBC	$1,920,000
New high quality cycleway connections within Frankton parallel to SH6 to provide connections to existing trails Wakatipu Active Travel Network routes and local networks (i.e. pedestrian paths)	Active Modes	Partial - Grant Rd to Kawarau Falls Bridge DBC	$4,000,000
Pedestrian network is developed and upgraded to provide connections between existing and new development areas	Active Modes	QLDC/NZTA Low Cost Low Risk Programme	$480,000
Robertson Street improvements for active modes with Humphrey St realignment	Active Modes	Partial - Grant Rd to Kawarau Falls Bridge DBC	$3,200,000
Lake Link - new active travel connection between Remarkables Park, the airport, Remarkables Primary School and Wakatipu Lake	Active Modes	Partial - Grant Rd to Kawarau Falls Bridge DBC	$16,000,000
Walking routes to public transport facilities continue to be upgraded within Frankton	Active Modes	QLDC/NZTA Low Cost Low Risk Programme	$800,000
Signalise Hawthorne Drive / SH 6 intersection	Active Modes	Grant Rd to Kawarau Falls Bridge DBC	$3,200,000
Upgrades to active travel and PT supporting infrastructure to encourage modal shift (e.g. covered bus stops, bike racks etc.)	Active Modes	QLDC/NZTA Low Cost Low Risk Programme	$800,000
Relocation (or realignment) of hospital and St John Ambulance to enable Lake Link (note cost of realignment will be lower than relocation)	Enable Active Modes and urban realm improvements	Package 2 of Wakatipu Active Travel Network DBC	$24,000,000
New Humphrey St Alignment and connection to Airport and Remarkables Park	Multi Modal	Grant Rd to Kawarau Falls Bridge DBC	$24,000,000
Lucas Place realignment	Multi Modal	Grant Rd to Kawarau Falls Bridge DBC	$16,000,000

Intervention	Activity Type	Current Business Case	Indicative Cost
Orbital bus route and bus lanes infrastructure throughout the study area - primarily uses existing bus lanes and road network as well as Trackless Tram routes when implemented.	Public Transport	ORC/NZTA Low Cost Low Risk Programme	$1,600,000
Additional bus prioritisation (public transport priority lanes)- i.e. SH6 / Kawarau Road and Hawthorn Drive	Public Transport	Frankton to Queenstown Single Stage Business Case	$14,400,000
Stop and connections to Regional Coach facility adjacent to Remarkables Park and Airport	Public Transport	Grant Rd to Kawarau Falls Bridge DBC	$4,800,000
Total			**$115,200,000**

Table 28 Programme 3 – High Capacity Public Transport improvements construction completed by 2028 (including 20% Escalation and 40% Contingency)

Intervention	Activity Type	Current Business Case	Indicative Cost
Trackless tram (high capacity public transport) services on key routes completed within 10 years, prioritisation assumes it will cater for bus services as well.	Public Transport	Frankton to Queenstown Single Stage Business Case	$128,000,000
New public transport Superstop near the intersection of SH6, SH6A and the Queenstown Event Centre.	Public Transport	Frankton to Queenstown Single Stage Business Case	$24,000,000
New stops to service trackless tram services along SH6 between Queenstown Event Centre and Shotover River	Public Transport	Frankton to Queenstown Single Stage Business Case	$7,200,000
Total			**$159,200,000**

Table 29 below outlines the interventions that do not have a current Business Case and are within the Programme 3 and Programme 4. Business cases or transport planning activities for these interventions will need to be confirmed through the Regional Land Transport Plan process.

Table 29 Interventions Without a Current Business Case (including escalation and contingency)

Intervention	Activity Type	Indicative Cost
Additional active travel connections	Active Modes	$480,000
Frankton cycling network is completed (not including connections provided by developers)	Active Modes	$1,920,000

Intervention	Activity Type	Indicative Cost
Pedestrian network is developed and upgraded to provide connections between existing and new development areas	Active Modes	$480,000
Walking routes to public transport facilities continue to be upgraded within Frankton	Active Modes	$800,000
Signalise Hawthorne Drive / SH 6 intersection	Active Modes	$3,200,000
Upgrades to active travel and PT supporting infrastructure to encourage modal shift (e.g. covered bus stops, bike racks etc.)	Active Modes	$800,000
Relocation (or realignment) of hospital and St John Ambulance to enable Lake Link (note cost of realignment will be lower than relocation)	Enable Active Modes and urban realm improvements	$24,000,000
Lucas Place realignment	Multi Modal	$16,000,000
Orbital bus route and bus lanes infrastructure throughout the study area - primarily uses existing bus lanes and road network as well as Trackless Tram routes when implemented.	Public Transport	$1,600,000
Stop and connections to Regional Coach facility adjacent to Remarkables Park and Airport	Public Transport	$4,800,000
Reduce speed limits on SH 6 between Kawarau Falls Bridge and Grant Road to 50 km/h	Speed Management	$320,000
Parking policy implemented	Travel Demand Management	$320,000
Total		**$54,720,000**

Part C – Delivering and Monitoring the Programme

8. Management and Commercial Case

The Management Case identifies the organisations responsible for implementation of the recommended programme and sets out how the next phases will be managed. Also please refer to the tables in Section 7 – Financial Case above which identify the next steps for each intervention in terms of the proposed business case pathway.

8.1 Proposed Governance Arrangements

The recommended programme comprises of a portfolio of projects that the Way To Go investment partners (QLDC, NZ Transport Agency and ORC) are collectively seeking to progress over the next few decades to deliver a significant transport outcomes for Te Kirikiri Frankton.

The scale of the proposed investment requires a coordinated and collaborative approach to achieve the masterplan vision and deliver the desired transport benefits. The existing partnership between QLDC, NZ Transport Agency and ORC through the *Way to Go* partnership provides a platform to integrate the coordination and future management of the recommended programme.

8.2 Programme Delivery

Some of the activities outlined in the recommended programme are scheduled for implementation and completion by the end of 2024 and are already subject to Business Cases as part of the *Way To Go* initiative. Other initiatives identified in this ITPBC and the Masterplan will need to be further progressed and considered for funding and investigation through the next Regional Land Transport Plan.

Procurement strategies for the implementation phases of the programme will be determined through the *Way To Go* partners and use appropriate methodologies based on scope, risk, complexity and scale. There are sufficient and appropriate local skills and capacity to deliver the majority of the programme. Specialised skills and capabilities will need to be procured for the high capacity public transport elements of the programme.

8.3 Roles and Responsibilities

QLDC, ORC and NZ Transport Agency will provide overall leadership and governance for implementation of this programme through the *Way To Go* initiative. Due to the interrelated components and co-funding requirements to deliver the programme strong leadership and cooperation is required. Through the *Way to Go* partnership all planning, business cases and pre-implementation is undertaken through a collaborative approach. Implementation, which includes the provision of services or construction of infrastructure, will be delivered by the relevant organisation, such as local road improvements by QLDC.

8.4 Cost Sharing from Partners

The indicative costs of the Te Kirikiri Frankton Integrated Transport PBC recommended programme are expected to be shared between the Way to Go partners (NZ Transport Agency, QLDC and ORC). The estimated cost breakdown for the recommended programme by organisation is shown in Table 30.

Note: The following table is indicative and provided for discussion purposes between the funding partners.

Table 30 Indicative Recommended Programme Cost Allocations

Cost Estimate	Total
NZ Transport Agency	$182,400,000
QLDC	$83,040,000
ORC	$28,800,000
Totals	**$294,240,000**

8.5 Post-Project Evaluation Planning

An ongoing benefit realisation plan is to be developed as part of the *Way To Go* partnership. This plan will through the development of the business cases associated with this programme evaluate their effectiveness and ability to achieve the outcomes sought from the investment. The specific measures to support the Investment Objectives and KPIs are those outlined in the short list assessment in Appendix H. These measures are consistent with those in the Queenstown Integrated Transport Programme Business Case.

8.6 Stakeholder Engagement and Communications

Stakeholder engagement and communication will be undertaken through the *Way to Go* initiative. Individual Detailed or Single Stage Business Cases will have specific stakeholder and community engagement strategies. Stakeholder and Community engagement was crucial for the development of the Te Kirikiri Frankton Masterplan as well as this ITPBC.

Mana Whenua will also be involved in the development and implementation of the programme and recognise the cultural importance of Te Kirikiri Frankton. In particular, the Masterplan provides guidance on the design principles and approach to reflect this cultural significance.

GHD Advisory

Appendices

Appendix A – Te Kirikiri Frankton Masterplan

TE KIRIKIRI
FRANKTON MASTERPLAN

DECEMBER 2019

Boffa Miskell

GHD Advisory

WAY TO GO

FRANKTON
YOUR PLACE YOUR PLAN

Otago Regional Council

NZ TRANSPORT AGENCY
WAKA KOTAHI

QUEENSTOWN LAKES DISTRICT COUNCIL

Document Quality Assurance

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1. EXECUTIVE SUMMARY

1.1 THE VISION

“Te Kirikiri/Frankton, where our pathways, the lake and the rivers meet.

At the heart of Te Kirikiri/Frankton is a hub that connects a bustling community of businesses, residents and visitors to Queenstown and the region. Embracing sustainable development, future generations live in harmony with the natural environment.”

Frankton Masterplan vision, 2018

1.2 SETTING THE SCENE

Imagine it's 2048, what legacy would you like to leave for future generations in Te Kirikiri/Frankton?

Te Kirikiri/Frankton is a significant area for Kāi Tahu, known as a place of settlement and mahika kāi, and lies at the junction of ara tawhito (traditional trails) linking to the wider landscape. Te Kirikiri/Frankton has evolved a lot in recent years. From rural land and holiday cribs into a complex mix of activities for locals and visitors, with much more to come. It's a dynamic place but lacks a cohesive plan to bind Te Kirikiri/Frankton's existing and emerging community together.

Following intensive community and stakeholder engagement spanning almost a year, a Masterplan has been collaboratively formulated. This plan demonstrates how to integrate land use and transport to address the future needs of Te Kirikiri/Frankton.

The process of producing this Masterplan was underpinned by a rigorous and open engagement process, with a range of stakeholders including mana whenua, local businesses, residents, landowners and interest groups. This enabled a robust and rounded vision to be formed and a platform for ideas to be tabled, tested and crafted into a comprehensive plan. The process also included two rounds of public engagement, with the feedback being incorporated into the plan.

In late 2018, Way to Go (W2G), a partnership between QLDC, NZTA and ORC, decided to consider the future of Te Kirikiri/Frankton as a whole and establish a framework to join it all up.

Building on the Your Place, Your Plan early insights engagement undertaken in September 2018, the partnership embarked on a process to develop the Te Kirikiri/Frankton Masterplan and Integrated Transport Programme Business Case (ITPBC).

The project's goals are to:

- Ensure Te Kirikiri/Frankton remains liveable and a positive experience for visitors, residents and businesses.
- Integrate all plans, strategies and projects to create better outcomes for Te Kirikiri/Frankton.
- Give Local and Regional Government, Central Government and private stakeholders confidence to invest.

Together with Treaty partner Kāi Tahu and stakeholders, key outcomes for the Masterplan were established. In April 2019 community feedback was gathered to test the foundations of the Masterplan through question and answer sessions, market day stalls and an online survey. The outcomes that the community identified as being of most importance were:

- Enhancing Te Kirikiri/Frankton's role as a hub for the district,
- Integrating with the lakefront and rivers' edges,
- Living and growing in harmony with nature,
- Unified and integrated town and local centres,
- Enhancing the local networks,
- Nurturing inclusive neighbourhoods, and;
- Enhancing visibility of Kāi Tahu in the urban environment.

Geographical scope of the Masterplan area

1.3 DEVELOPING THE MASTERPLAN

Masterplans and Integrated Transport Programme Business Cases in New Zealand are typically prepared as two separate processes. Through the W2G partnership, Council, NZ Transport Agency and Otago Regional Council decided to adopt an integrated approach to determining the future direction of Te Kirikiri/Frankton. This unified approach provides a stronger case for investment and is essential to the timely and cost-effective delivery of the desired future outcomes for Te Kirikiri/Frankton.

While there are two principal deliverables, at its core, the project approach comprised three work streams: Engagement; the Masterplan; and the Integrated Transport Programme Business Case (ITPBC). Each of the work streams were closely related and dependant on the others. As illustrated in the diagram opposite, stakeholder engagement was fundamental to the success of the project and acted as a backbone and binding element of the project, effectively a touch point and an important part of the evidence base for the Masterplan and ITPBC. Establishing a shared vision and agreeing a set of investment objectives with the key stakeholders has been critical to developing a robust ITPBC and Masterplan .

The engagement work-stream comprised multiple layers, from interactive stakeholder workshops and broader public engagement exercises through to more targeted engagement with individual interest groups, stakeholders and aligned projects. The bulk of the engagement was formed around a series of workshops that provided gateways at significant decision points throughout the project, from the development of a vision and outcomes, through to a concept and spatial framework.

These workshops provided a means of bringing key stakeholders and the project team together to ensure a common understanding of the challenges and opportunities, and reduce decision making timeframes and risk of misinterpretation. It was also critical to ensure alignment with interdependent projects that were running in parallel and in some cases overlapping. These projects often relied on the same sources of data, as well as being essential to the delivery of both within the Te Kirikiri/ Frankton area and the wider District.

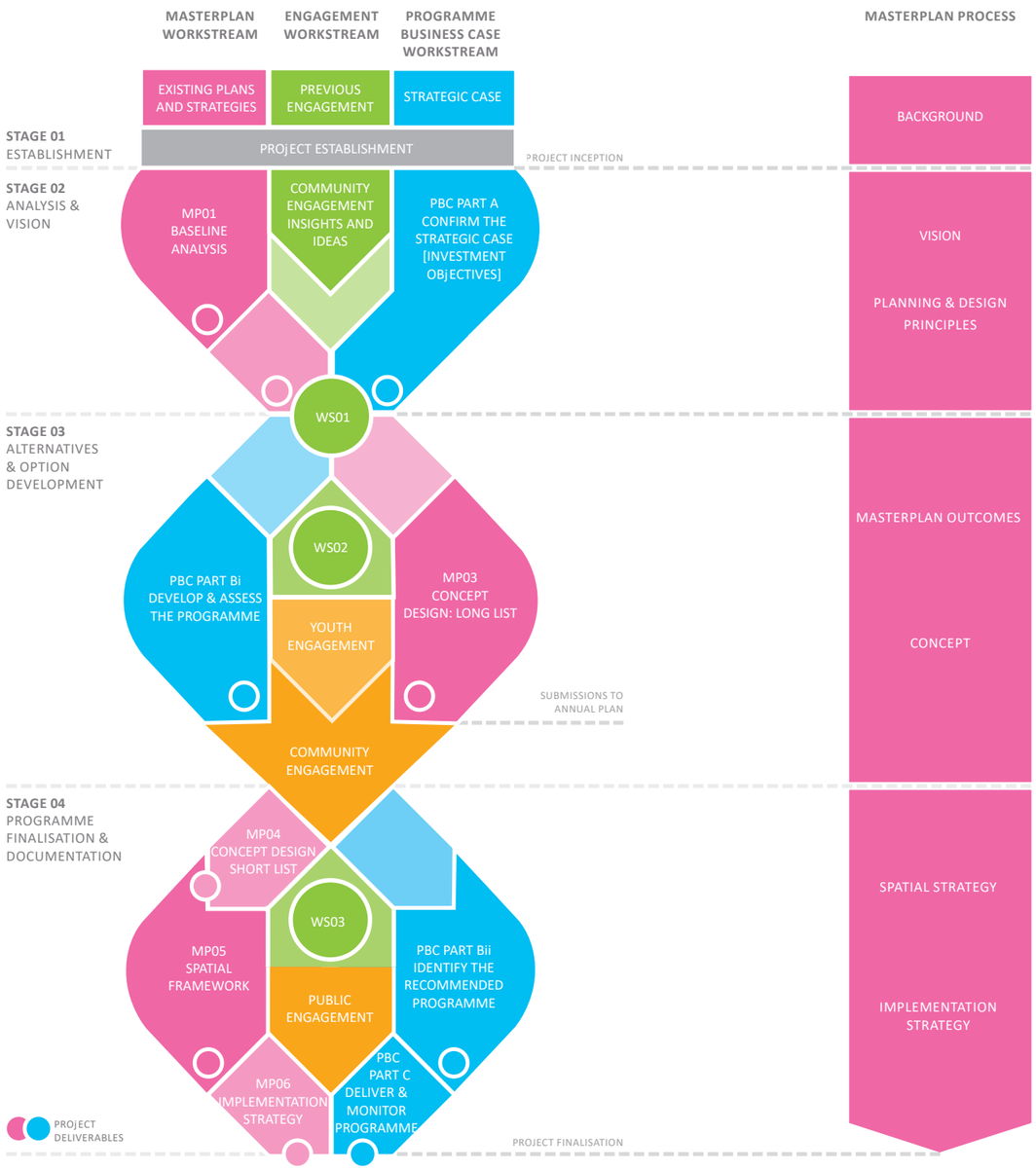
The robust and rigorous engagement process undertaken has provided stakeholders with a strong sense of ownership of decision making within the project provided a clear direction to the project team - enabling them to maintain momentum and see the project through to completion in a fashion that is consistent with the vision that was developed at the outset. Like any major change, it is not always possible to reach a full consensus and some stakeholder and community views may differ from those represented in the Masterplan. All viewpoints have been recorded and many of these can be considered in more detail and addressed as the action plan is implemented over time.

The Masterplan is a comprehensive plan of action that provides a vision and flexible spatial framework that will guide development over the next 30 years. Developing a Masterplan is a complex task of analysing, understanding and responding to the issues and aspirations of key stakeholders and wider community. Through the integrated approach, the Masterplan has progressed iteratively with the ITPBC, enabling stakeholders to understand longer term and complex issues of land use, built form and transport integration.

The Masterplan and ITPBC share a number of inputs and outputs, such as problem statements, objectives and option formulation. A key component of the Masterplan is the spatial framework. The spatial framework provides flexibility to respond to the changing needs of the community, environment and the economy. It is underpinned by the growth projections that anticipate a significant uplift in residential, commercial and visitor numbers over the 30-year timeframe of the Masterplan.

While the Masterplan for Te Kirikiri/Frankton has a relatively well-defined geographic scope, the complex land use and transport issues, including the outputs and influence of interdependent projects outside the area, means it has been critical for both the Masterplan and ITPBC to consider a broader 'area of influence'.

Ultimately the Masterplan and its various components will provide direction and a decision-making framework for the future. It is not intended to be a static document and will be reviewed and refreshed at key stages during its 30 year time horizon, enabling it to effectively respond to an evolving context.



1.4 DESIGN AND PLANNING PRINCIPLES

A series of design and planning principles have been collaboratively developed with stakeholders. These principles drew upon several sources, including background research, the vision workshop, targeted stakeholder engagement and the community engagement findings that preceded this Masterplan. The design and planning principles are a development of the vision statement and provide criteria for evaluating the Masterplan outcomes. The criteria have also been used to benchmark for how Te Kirikiri/Frankton currently sits with respect to the long-term vision and can be used to chart the impact that actions and interventions will have towards the delivery of the Masterplan over time. While the principles are robust and future focused, given the 30 year timeframe for the delivery of the Masterplan, it is expected that the Design and Planning principles will be reviewed, updated and amended as necessary to reflect new challenges, opportunities and aspirations that are likely to emerge over the next three decades. They can also be used as a basis of assessing the appropriateness of subsequent interventions during this time.

COMMUNITY

WHANAUKATAKA

An inclusive environment where spaces and facilities are provided that enable the community to grow and connect.

Criteria

- Provide facilities and spaces that promotes community togetherness and encourages social interaction
- Enhance the connection between the community and nature
- Provide a range of housing typologies to accommodate the breadth of the community

WELCOMING

MANAAKITAKA

A place that feels safe, hospitable and accessible for all user groups.

Criteria

- Provide reliable and regular public transport options
- Allow visual connections to cultural landscapes to inform building and spatial orientations where possible and design.
- Create desirable spaces that have high levels of climatic comfort and high levels of connectivity
- Ensure public space is adequately lit at night with active edges to provide passive surveillance
- Create a legible public space and street network where movement is intuitive

CHARACTER

MANA MOTUHAKE

A distinctly local experience for residents to call home and visitors to be hosted.

Criteria

- Strengthen sense of identity for locals while balancing the needs of visitors
- Retain and draw upon existing culture and history
- Promote seasonal activation of space that helps to solidify Te Kirikiri/Frankton's character
- Involve residents in the management of their streets and open spaces to provide a sense of ownership
- Enhance the fabric of communities by designing with sensitivity to existing character, scale and use
- Enable a sense of hospitality by ensuring adequate provision is made for visitor accommodation

ENVIRONMENT

WAIRUATAKA

Foster people's connection to land and water where the community lives in harmony with nature.

Criteria

- Create environments which encourage physical activity and prioritises walking and cycling
- Strengthen the sense of identity by maintaining and enhancing important views to sites of cultural and historic significance.
- Minimise the degradation of, and enhance, the environment through low impact water and waste management with a long term aspiration to improve water quality
- Foster people's relationship with water by maintaining an accessible public frontage
- Protect and enhance biodiversity by improving indigenous flora and fauna of value to Kāi Tahu
- Implement new technologies in environmental design and greener building standards

IDENTITY

WHAKAPAPA

The public realm and built form reflect their local context: including culture, history, values and aspirations.

Criteria

- Through design, educate, celebrate and acknowledge the shared cultures and history of Te Kirikiri/Frankton
- Provide opportunities for people to engage with the natural environment and its processes
- Create places that are memorable and identifiable as uniquely Te Kirikiri/Frankton
- Develop and implement a cohesive design language that responds to and enhances local character
- Use streetscape planting to strengthen desired character for connected spaces
- Adopt a sustainable and consistent material palette across Te Kirikiri/Frankton
- Incorporates Kāi Tahu design strategies

INTEGRATED

TŪHONO

A functional and well defined town centre that is connected and complementary to the wider district and has the flexibility to adapt and grow.

Criteria

- Ensure ease of access between centres and fringe communities
- Acknowledge ancestral pathways associated with Mahika Kāi and the traditional economy of trade by creating well defined and connected centres
- Strengthen the arrival experience to Te Kirikiri/Frankton, considering arrival by water, air and road
- Provide adaptable and flexible design solutions that can evolve over time
- Utilise resilient design principles to safeguard communications, critical services and infrastructure
- Enable independence by providing spaces and transport suitable for different user groups
- Ensure private sector development is coordinated and contributes to the long term vision for Frankton

FEASIBLE

WHAIPAIKA

Masterplan actions and outcomes are well defined, set against realistic time frames and budgets, and are well supported by the community and stakeholders.

Criteria

- Masterplan outcomes should be mutually beneficial for residents and visitors, providing social and economic gains
- Actions are coordinated and appropriately sequenced to maximise outcomes
- Responsibilities and accountability for delivery is clear
- Actions leverage existing investment and do not undermine the long term vision and wider aspirations of the District
- Projected completion dates are realistic, and managed by identifying short, medium and long-term milestones

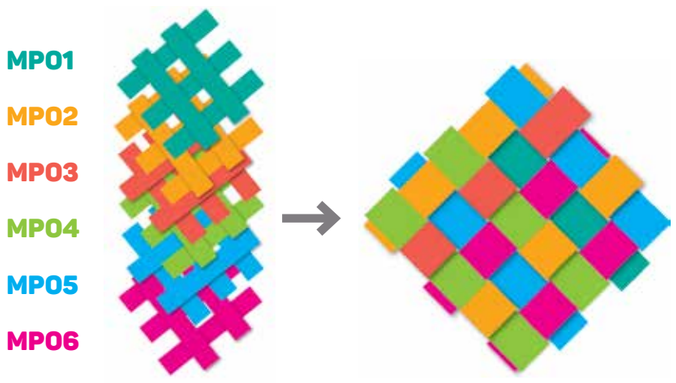
1.5 MASTERPLAN OUTCOMES

THE MASTERPLAN OUTCOMES

As part of the formulation of the Te Kirikiri/Frankton Masterplan, six Masterplan outcomes have been identified and developed, drawing on the Vision and Design and Planning Principles. These layers are transformational and place based outcomes that have been tested by stakeholders through workshops and have formed part of the public engagement feedback loop. They are underpinned by a set of objectives that respond to the specific opportunities and challenges within the Te Kirikiri/Frankton area, as well as addressing community aspirations. While each of the Masterplan outcomes had its own tailored set of objectives, there are a number of interdependencies that are tied together as part of the spatial framework. The Masterplan outcomes developed include:

- MP01. Integrating with the water's edge
- MP02. Gateway into the district
- MP03. Enhancing the local network
- MP04. Integrated urban centres
- MP05. Living and growing in harmony with nature
- MP06. Inclusive neighbourhoods

LAYERING THE MASTERPLAN OUTCOMES



MP01 INTEGRATING WITH THE WATER'S EDGE

Objectives:

- Improve access for the community to the water
- Increase opportunities for recreation along the waterfronts
- Preserve and enhance views towards the water
- Utilise the water for transportation
- Capitalise on the amenity of the water edge for active transport
- Create a safe and accessible environment
- Enhance the water quality
- Promote climate smart solutions to improve resilience
- Strengthen the ecological connections from the waterfront into the core of Te Kirikiri/Frankton

MP02 GATEWAY INTO THE DISTRICT

Objectives:

- Strengthen the sense of arrival into Te Kirikiri/Frankton by air, road and water
- Intensify uses and built form around the gateways to Te Kirikiri/Frankton
- Enhance the outward face of Te Kirikiri/Frankton along the state highways
- Create an intuitive and welcoming environment
- Enhance views towards the natural landscape features (water, mountains and hills) to improve legibility
- Reinforce a distinctly world class Te Kirikiri/Frankton character
- Support a transport oriented development by intensifying uses at transport nodes

MP03 ENHANCING THE LOCAL NETWORK

Objectives:

- Implement efficient and direct connections between existing activity areas
- Provide reliable and demand responsive services
- Blend modes, provide choice and extend the network reach
- Support inclusive access for all of the community
- Lift the profile of public transport
- Create a public transport system that utilises the setting to enhance the experience
- Use innovation and technology to enhance the user public transport and the movement network
- Apply inclusive and barrier free design principles to create a more welcoming environment to the breadth of the community
- Prioritise pedestrians and cyclists in high use activity areas.

MP04 UNIFIED AND INTEGRATED URBAN CENTRES

Objectives:

- Create direct connections between the principal activity areas within Te Kirikiri/Frankton
- Focus on complementary offer to Queenstown Town Centre and other places in the District
- Create a distinction between each centre to ensure that they complement and contribute to Te Kirikiri/Frankton as a whole
- Integrate a range of living options that are distinct and responsive to the setting within each of the neighbourhoods and local centres
- Ensure that each of the centres provides a range of accessible social infrastructure and facilities
- Match urban form and intensity of use with transport hubs to create transport oriented development.

MP05 LIVING AND GROWING IN HARMONY WITH NATURE

Objectives:

- Utilise the natural assets for recreation and active transport
- Improve the amenity and environmental attributes of streets and spaces
- Create a distinctive sense of place by drawing upon local, historic and cultural characteristics
- Inspire behavioural change to encourage green living and working choices and integrated energy generation infrastructure
- Support community based sustainability initiatives
- Improve the community connection to nature by creating a range of accessible outdoor spaces
- Maximise opportunities to enhance the native flora and fauna.

MP06 INCLUSIVE NEIGHBOURHOODS

Objectives:

- Increase residential options that cater across the spectrum of the community
- Provide community spaces that create opportunities for social interaction
- Create self-sufficient and adaptable neighbourhoods with accessible local services
- Support aging in place through inclusive neighbourhood planning and housing choice
- Create distinctive neighbourhoods that connect with and are shaped by the environment
- Improve the perception of safety
- Provide environments that promote a healthy lifestyle
- Create independence in the community by providing accessible and safe play and recreation

1.6 MASTERPLAN AND KEY ACTIONS

The 30 year transformational vision for Te Kirikiri/Frankton will be realised in steps through a range of key actions, these include:

1. Improving the arrival experiences into Queenstown via the Queenstown Airport, state highway and trail network, including the establishment of a new Frankton Flats-Waka pu Lake Link and poten ally recognising wāhi tūpuna (ancestral landscapes) at the Kimiākau/Shotover and Kawarau River crossings;
2. Upgrading State Highway 6 into a high amenity, 50 km/hr urban arterial, poten ally recognising the ara tawhito (tradi onal trail) along Frankton Ladies Mile Highway and improving intersec ons and crossing points to reduce community severance and enhance safety along ac ve travel routes;
3. Using a range of transport op ons to improve access for people of all ages and abili es. This includes comple on of the wider ac ve travel network and linking several local and district centres together through a high frequency, public transport system opera ng on an orbital loop;
4. Strengthening the rela onship between high capacity public transport corridors and more intensive land use ac vi es and built form, such as redeveloping the northern Glenda Drive industrial area for residen al living;
5. Integra ng the Queenstown Airport terminal and other landside opera ons into the public transport network and surrounding compa ble land uses, including inves ga ng opportuni es for the long-term reloca on of Lakes District Hospital facili es outside the Queenstown Airport noise contours;
6. Enhancing recrea onal and community facili es at Queenstown Event Centre, alongside a new transport interchange and Emergency Precinct (e.g. emergency services, civil defence and Queenstown Airport rescue) on the Frankton Golf Centre site;
7. Providing more urban parks and greener streets, including crea ng more direct visual and physical links to Lake Waka pu and enhanced waterfront parks and reserves with the establishment of 'Te Kirikiri/Frankton Gardens' as a long-term, legacy project that incorporates Kāi Tahu references;
8. Redeveloping Kimiākau/Shotover Delta into a Kimiākau Zero Waste Community Eco Park, district-wide reserve for informal recrea onal ac vi es, kā rauemi (resource harves ng areas) and poten ally a relocated Frankton Golf Centre;
9. Shi ing current rural infrastructure towards the edge of Te Kirikiri/Frankton to improve amenity and reduce constraints (e.g. bu ers from highways and transmission line corridors) and be r accommodate future urban development;
10. Expressing Kāi Tahu values and narra ves of Te Kirikiri/Frankton; and
11. Recognising cultural heritage from the perspec ve of Chinese, mining and pastoral farming, including crea on of the Arranmore/ McBride Farm Heritage area.

The proposed establishment of the Five Mile urban corridor (view west along State Highway 6 near Grants Road intersection towards the Queenstown Event Centre) upgrades the Frankton-Ladies Mile Highway, between the Shotover Bridge and Frankton Village, to create a high amenity, 50 km/hr urban arterial, potentially recognising the ara tawhito (traditional trail) along this route. This will be integrated with masterplanned improvements to QEC, including maintaining views across Frankton Flats to the wider natural landscapes.

The proposed establishment of a Lake Link (view west from near the Queenstown Airport terminal) across State Highway 6 / Kawarau Road creates a strong pedestrian and cycle priority route, reducing the severance between Frankton Flats (e.g. Queenstown Airport, Remarkables Park Town Centre and Wakatipu High School) with the Frankton Arm (e.g. Ferry services, Remarkables Primary School and Frankton Beach) for the surrounding community. The Link will also create a higher amenity community and visitor focal point. It will also improve the arrival experiences into Queenstown via the Queenstown Airport, state highway, water services and trail network. Its design could recognise wāhi tūpuna (ancestral landscapes) and ara tawhito (traditional trails) of Kai Tahu.

KEY

- Masterplan area

MOVEMENT NETWORKS

- Public transport route/stops (separated lanes or priority)
- Orbital bus route/stops
- Gondola lines/base station (private)
- Ferry route/stops
- Street network
- Active travel network (walking and cycling)
- New road corridor
- Freight route
- Bridge crossing (Active travel and/or public transport)
- 400m (5min) walking distance
- PR Park and Ride
- CS Site of Cultural Significance
- * Potential gateway feature

Note: Dashed routes subject to further investigation

CONSTRAINTS

- Queenstown Airport noise contours (existing)

LAND USE

- Higher density residential
- Medium density residential
- Lower density residential
- Mixed use (includes residential)
- Small to medium format retail
- Large format retail
- Commercial (excludes residential)
- Light industrial and utilities
- Community facilities (buildings)
- Queenstown Airport Corporation (subject to separate process)
- Active open space
- QEC Recreation Masterplan area (subject to separate process)
- Passive open space
- P Urban park (location and size subject to levels of service)
- Native revegetation
- Tussockland/wetland

Note: Land use mix assumes removal of crosswind runway

22 KEY FEATURES

01 Frankton Campground redevelopment
02 Emergency precinct
03 Events centre extension
04 Public transport interchange (estimated location)
05 Community hub
06 Arranmore/McBride Farm heritage area
07 Wastewater treatment plant expansion
08 Relocation of power infrastructure
09 Kimiākau Zero Waste Community Eco Park
10 Wastewater ground filtration
11 Constructed wetland areas
12 Proposed golf course
13 Commercial recreation (excludes noise sensitive activities)
14 Conference and arts centre
15 Quayside waterfront and jetty
16 Te Kirikiri/Frankton Gardens
17 Regional coach hub
18 Humphrey St extension
19 Lakes District Hospital (long-term relocation)
20 Lake link bridge
21 Public transport and QAC traffic only
22 Potential future public transport route

QUAIL RISE
QUAIL RISE SOUTH
LAKE JOHNSON
FRANKTON-LADIES MILE HWY
QUEENSTOWN COUNTRY CLUB
PR
6
Potential relocation of Power infrastructure – site yet to be investigated
SHOTOVER COUNTRY
KIMIĀKAU/SHOTOVER RIVER
FIVE MILE URBAN CORRIDOR
HAWTHORNE DR
GLENDA DR
GRANT RD
KIMIĀKAU/ SHOTOVER DELTA
PUAHURU
FRANKTON VILLAGE
QUEENSTOWN EVENTS CENTRE
6A
FRANKTON MARINA
QUEENSTOWN AIRPORT
KAWARAU RIVER
WAKATIPU HIGH SCHOOL
REMARKABLES PARK
FRANKTON ARM LAKE WAKATIPU
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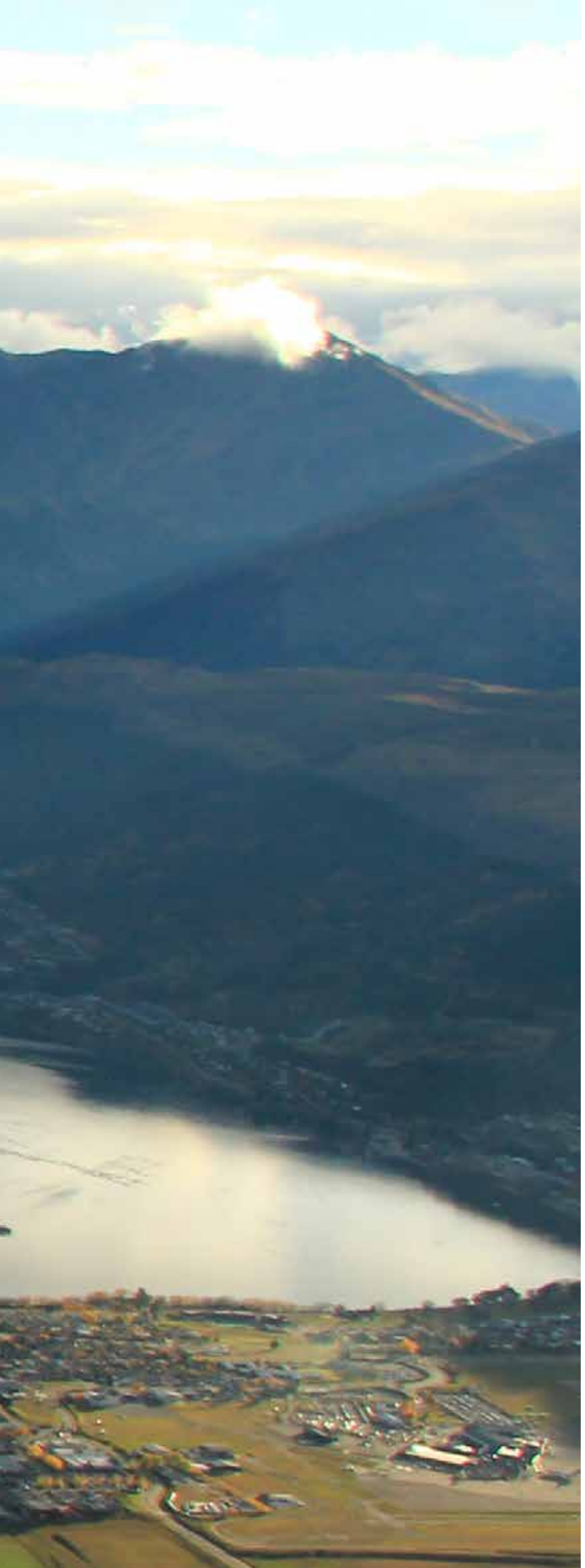


1.7 CONTENTS

2. BACKGROUND

2.1 PROJECT CONTEXT

The Queenstown Lakes District is currently experiencing considerable and sustained growth from both local and visitor sectors. This growth is forecast to continue into the future. The scale and pace of growth is placing considerable strain on current infrastructure and amenity throughout the Queenstown urban area. This pressure will increase as the growth continues. There is, however, an opportunity to provide a clear and coherent Masterplan in key areas to ensure that the appropriate infrastructure is provided to support this growth, while also ensuring that the liveability of these areas is enhanced. The Te Kirikiri/Frankton area has been identified as needing a clear strategy to manage this growth. This strategy needed to be supported by an integrated transport plan to ensure an holistic approach is taken and that the future outcomes are what is desired rather than simply occur.

For several years the community have been observing and experiencing the effects of this growth first hand and have become frustrated at the missed opportunities and deterioration in the quality of the public realm. Equally, the development community in these areas are looking to QLDC and its investor partners to provide certainty around the future direction and investments within Te Kirikiri/Frankton so that they can have confidence that their developments can support and harness this investment.

As a transport gateway for residents and visitors, Te Kirikiri/Frankton shapes experiences for millions of people each year. Equally important is Te Kirikiri/Frankton as a centre for commercial and industrial activity, community facilities, recreation and social services. Te Kirikiri/Frankton is a pivotal hub for the district and region and currently lacks a clear vision and spatial framework that can proactively integrate transport planning with land use to meet future demands and improve liveability. Without clear ownership, the situation in Te Kirikiri/Frankton is unlikely to improve. However, with a clear, coherent and ambitious plan there are significant opportunities to build on and improve Te Kirikiri/Frankton through positive partnerships between the public and private parties that make up the local landscape.

While there have been various business cases and plans previously produced, there has been no overarching document that brings all of these together into an agreed sequence showing how they are integrated in a cohesive manner that provides clarity of outcomes and the subsequent future investment for all parties. The Te Kirikiri/Frankton Masterplan brings together a range of project work streams and shows, in a visual and evidence-based way, how they might be delivered in an integrated fashion in line with community aspirations. From an investment perspective, the Masterplan and associated Integrated Programme Transport Business Case (ITPBC) perform an important function of setting out a cohesive investment story for the area.

The intent and purpose of the Masterplan is to:

- Integrate all pans, strategies and projects affecting Te Kirikiri/Frankton;
- Provide Local Government, Central Government and private stakeholders confidence to invest;
- Align infrastructure planning and land use to create optimal outcomes for Te Kirikiri/Frankton; and
- Ensure Te Kirikiri/Frankton remains liveable, making for a positive experience for visitors, residents and businesses.

GEOGRAPHIC SCOPE

At the south west corner of the Wakatipu Basin and northern end of the Remarkables mountain range, Te Kirikiri/Frankton lies on a flat, alluvial plain that is bounded by the Frankton Arm of Whakatipu-Wai-Māori/Lake Wakatipu and Kimiākau/Shotover and Kawarau Rivers. It is the gateway into the Central Otago and Southern Lakes areas, due to the presence of Queenstown Airport and its location on State Highway 6 and junction with State Highway 6A.

The area of influence beyond Te Kirikiri/Frankton has three arms that extend south west to Queenstown; north east into Shotover Country and Lake Hayes Estate; and southwards to Kelvin Heights, Hanley's Farm and jacks Point. These incorporate a significant area of land that is also undergoing change and has strong interdependencies with the Masterplan area. What happens in Te Kirikiri/Frankton can support and potentially influence the staging of this change.

The Masterplan area and area of Influence is also subject to several other related business cases and studies that will have shared goals including:

- Queenstown Integrated Transport Programme Business Case
- Frankton to Queenstown Business Case
- Queenstown Town Centre Masterplan Programme Business Case
- Active Travel Business Case
- Water Services Business Case
- Te Kirikiri/Frankton to Queenstown Town Centre Business Case
- Wakatipu Active Travel Business Case
- Frankton Masterplan
- Queenstown and Frankton Parking Strategy
- Grant Road to Kawarau Falls Business Case
- Wakatipu Ferry Business Case

Geographic scope of masterplan area and area of influence

2.2 MASTERPLAN SCOPE

The aim of the Masterplan has been to identify and unify a broad spectrum of community and stakeholder aspirations through a collaborative process and distil them down to a single vision for the future of Te Kirikiri/Frankton. The Masterplan process considered various options and opportunities, as part of the development a of a feasible plan that encompasses multiple aspects such as:

- Enhancing the quality of the public realm and experience of users; /
- Exploring opportunities to create a stronger sense of place; /
- Maximising connectivity and managing the interface with the lake front and water; /
- Providing access by all modes of transport; and
- Planning for growth in a coordinated way.

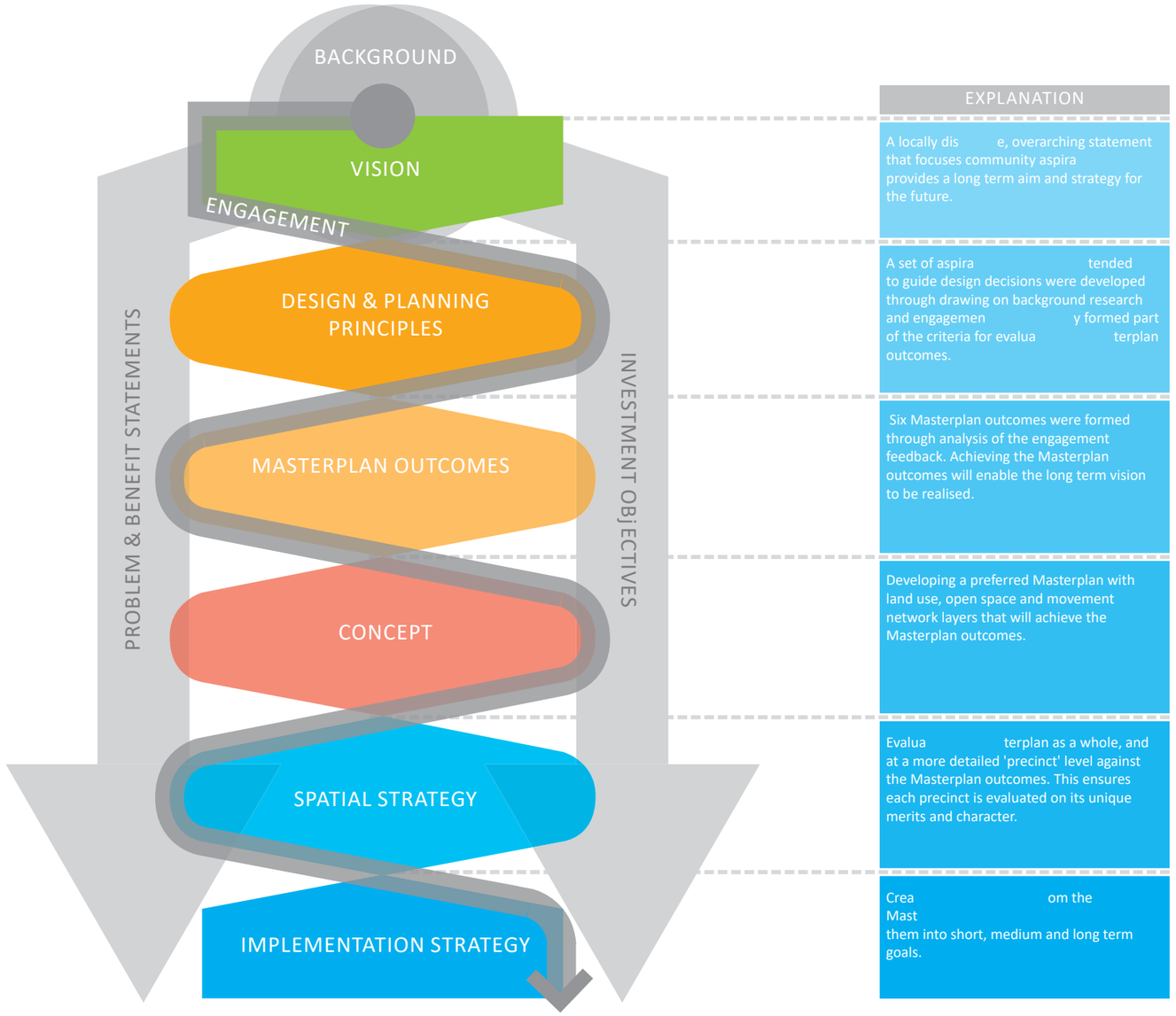
The Masterplan considers the multiple roles and functions of Te Kirikiri/ Frankton; as tourist destinations, commercial centres, community hubs and a place of significance to Kāi Tahu. The Masterplan also investigates opportunities to enhance these existing roles while addressing known and anticipated problems arising from growth in the number of residents and visitors. The Masterplan for Te Kirikiri/Frankton will see a move away from the current vehicle-dominant centres, towards those more people-focussed. This desire has been articulated clearly in previously developed studies and earlier community engagement. It also aligns well with Central Government's focus on mode neutrality, and encouraging walking, cycling and public transport through its Government Policy Statement on Land Transport (2018).

The Masterplan has been developed as a series of coordinated actions that feed into an overarching concept and ultimately a Spatial Framework. The Spatial Framework provides flexibility for decision making and illustrates how the Vision for the future will enhance local identity through incorporating sound planning, design and placemaking principles and building upon and enriching the vibrancy, environmental qualities and character of the area.

The Spatial Framework focuses on the physical interventions and considers the contextual, heritage, cultural, infrastructural and development overlays that will integrate the current and future potential opportunities. The Spatial Framework provides a strong visual story illustrating the various interventions and how they are prioritised and sequenced for implementation.

The diagram to the right illustrates the stages of developing the Masterplan.

MASTERPLAN PROCESS



2.3 HISTORIC AND CULTURAL CONTEXT

WHAKATIPU-WAI-MĀORI AND SURROUNDS: A CULTURAL NARRATIVE

CREATION NARRATIVES

Whakatipu-Wai-Māori is one of the iconic lakes of cultural and statutory significance to Kāi Tahu. The name Whakatipu-Wai-Māori first features in the Waitaha iwi oral tradition of "Kā Puna Wai Karikari o RāKāihautū" which tells how the great lakes of Te Wai Pounamu (the South Island) were dug by the tīpuna (ancestor) RāKāihautū.

RāKāihautū was the captain of the waka (ocean canoe), Uruao, which brought the Waitaha people to New Zealand on an early discovery expedition. After first arriving in Whakatū (Nelson), RāKāihautū split his party and headed southwards by an inland route, sending his son Rokohouia leading another party along the coastal margins in the Uruao. It is said that RāKāihautū used his famous kō (Polynesian digging tool) called Tū Whakaroria to perform divination rituals and subsequently form the major lakes of Te Wai Pounamu, including Whākatipu-Wai-Māori, Wānaka and Hāwea[1]. It is RāKāihautū and the Waitaha who lit the first fires of occupation within Te Wai Pounamu.

There are many other traditions relating to Whakatipu-Wai-Māori. An alternative narrative of the formation of the lake describes that the hollow which forms the lakebed was created when the people known as Te Rapuwai came upon the giant tipua (ogre) Matau as he lay there in a deep sleep. Matau had been responsible for the disappearance of many small hunting parties and had entrapped a beautiful maiden, Manatā. The father of Manatā offered her in marriage to the man who could bring her safely home. Matakauri, who was in love with Manatā, ventured forth, discovering that Matau slept when the northwest wind blew. On one such day Matakauri sought and found Manatā and, using his mere, Matakauri attempted to sever the bonds which held her, but try as he would he failed. Manatā began to sob bitterly, and as her tears fell on the cords, they melted away. Matakauri carried Manatā back to the safety of the village where they became man and wife.

However, Matakauri knew that while Matau lived no maiden was safe, so when again the northwest wind blew, he again found Matau in a slumber and set fire to the large growth of bracken that acted as a bed for the giant. Matau was smothered in flames, the fat from his body augmenting the fire, until the blaze was so fierce that it burned a hole more than 1,000 feet deep in the shape of a sleeping giant. The snow on the surrounding hills melted and filled the hole, which is known today as Lake Wakatipu[2]. At the head of the lake there is a mountain ridgeline that resembles the profile of Matau's face and head.

For Kāi Tahu, traditions such as these represent the links between the cosmological world of the gods and present generations. These histories reinforce tribal identity and solidarity, and continuity between generations, and document the events which shaped the environment of Te Wai Pounamu and Kāi Tahu as an iwi[3].

1 Kāi Tahu, Claims Settlement Act, 1998
2 Ibid
3 Ibid

NOHOAKA AND ARA TAWHITO

Whakatipu-Wai-Māori and the surrounding takiwā (district) supported nohoaka and kāika (villages) which were the destinations of Otago and Murihiku (Southland) whānau and hapū for many generations. These areas provided for the exercising of ahi kā (fires of occupation) and facilitated access to Mahika Kāi. This network of villages also lay upon the routes to access pounamu at Te Koraka, located beyond the head of the lake. Strategic marriages between hapū strengthened the kupeka (net) of whakapapa and thus rights to access and use the resources of the lake[4].

Kāi Tahu Whānui[5] developed many trails (ara tawhito) throughout Te Wai Pounamu (the South Island) linking the numerous settlements and villages to one another and the Mahika Kāi resources. These pathways became the arteries of economic and social relationships including the transportation of treasured pounamu and Kāi (food). Trails included the Clutha/ Mata-au, used to transport pounamu back to the coast; the Waitaki River, itself a rich source of Mahika Kāi ; Ōmakō/Lindis Pass which connected the Waitaki with lakes Wānaka and Hāwea; the Mataura River, noted for its indigenous fishery; and Haast Pass / Tiori Patea. The Mātakitaki River provided an alternative route to the pounamu resources of Te Tai Poutini/the West Coast. The Ōrau (Cardrona River) and the Kawarau were also part of the interconnected network of trails. Much of the current State Highway 6 corridor between Lake Hayes and Frankton aligns with one such trail.

There were numerous tauraka waka (landing places) for waka and mōkihi (reed rafts) on the lake and the islands upon it (Matau and Wāwāhi-waka). The tīpuna had an intimate knowledge of navigation, river routes, safe bays and landing places, and the locations of food and other resources on the lake, its tributaries and margins. The lake was an integral part of the network of trails which were used in order to ensure the safest journey and incorporated locations along the way that were identified for activities including camping overnight and gathering Kāi. Knowledge of these trails continues to be held and shared by whānau and hapū and is regarded as a taoka (treasure).

Settlements included the kāika Tāhuna (meaning shallow bay) near present-day Queenstown, Te Kirikiri Pā; a Kāti Mamoe kāika near the Kawarau Falls called Ōterotu; Tititea Pā and another called Takerehaka at Kingston. Tititea was located on the south side of the Kawarau River, near Ōterotu. One narrative describes how a chief named Putete had settled at Tititea with his new wife from Temuka. After some time, she died at Tititea, and her Kāi Tahu kin from Temuka heard of her death in such a manner that they interpreted that the Kāti Mamoe people of Tititea had killed her. In response, a taua (war party) of 280 warriors was sent to avenge her death, under a chief called Te Mahika. They left Temuka and followed the ara tawhito from the Waitaki River to Tititea. When they arrived, Chief Putete came out to meet the taua, remarking that despite their size they were not strong enough to successfully attack the Tititea Pā. That night, the attacking taua lit numerous fires and retreated under the cover of darkness. Kāti Mamoe pursued the taua, nearly catching them on the Crown Range. However, the wind was blowing off the range towards the pursuing men of Tititea, whereby the retreating taua set fire to the dry vegetation between them, eventually stopping the pursuit. The Crown range where this incident occurred is now named Tititea, in memory of the attempt by the fleeing taua to burn the men of Tititea there[6].

4 Ibid
5 Kāi Tahu Whānui refers to the interconnected tribes of Waitaha, Ngāti Mamoe and Ngāi Tahu, which merged over the years through intermarriage and conquest.

MAHIKA KĀI AND OTHER RESOURCES

Pounamu is a treasured resource that was sourced from the head of the lake in the Dart and Routeburn river catchments. Countless generations transported it back to coastal settlements on waka and mōkihi for fashioning into tools, ornaments and weapons. The process of accessing and working the pounamu from these source was difficult, requiring resilience, industry and perseverance. These qualities are referenced in the whakataukī "E kore nei e taea i te rā ki te waru", translating to "a day will not suffice for the rubbing" relating symbolically to the process of working the pounamu into its finished form.

Throughout the region, other important food sources were native fish (such as giant kōkopu), ducks at the river mouths, kāuru, aruhe and weka, which were harvested in the open valleys during the winter months. The flat plains south of the lake were noted for harvesting of weka[7]. Plants such as tikumu and taramea were readily available in the district, for making waterproof and matagouri thorn-proof leggings, fragrant cloaks and perfume[8]. Pora and harakeke were also harvested from this area[9]. Tussock, raupō and tī kōuka were also key resources, harvested to make mōkihi (temporary reed rafts) and whare rau (housing).

Whakatipu-Wai-Māori is an important source of freshwater, the lake itself being fed by hukawai (melt waters). These are waters with the highest level of purity and were accorded traditional classifications by Kāi Tahu that recognised this value. Thus it is a puna (spring) which sustains many ecosystems important to Kāi Tahu. All elements of the natural environment possess a mauri, a life force, and all forms of life are related. The mauri of Whakatipu-Wai-Māori represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life.

It is the protection and enhancement of the mauri of natural and physical resources that underpins Kāi Tahu Rūnaka interactions within the urban development space. Masterplanning processes such as Te Kirikiri/Frankton, should recognise the intrinsic relationship of Kāi Tahu with the landscapes of the wider region. Acknowledging this relationship will present opportunities for strengthening of cultural identity and place-making outcomes for all.

6 Beattie, 1945
7 Anderson, 1998
8 Anderson, 1982
9 Taylor, 1952

Painting of O Te Rotu (Kawarau Falls) with Whakatipu-wai-Maori in the background between 1862 and 1867. Alexander Turnball Library, ref: WC-327

EUROPEAN AND CHINESE HISTORY

The first European to see Whakatipu-wai-Māori (Lake Wakatipu) was Nathaniel Chalmers in 1853, guided via the Nevis Valley by Reko, the celebrated Māori chief. Although Chalmers sighted the lake, it would be another three years before Reko would return with john Chubbin, john Morrison and Malcom Macfarlane to stand on the shore of what is now known as Kingston. An accidental fire lit from the discarded match of Morrison's pipe unintentionally cleared a path for people and animals to access the district in future.

The Remarkables first received their English name in 1857 by European Alexander Garvie during a reconnaissance survey of the district. The first to settle the Wakatipu Basin, however, were William Ree's and Nicholas Von Tunzelmann, deriving the European name of the Kimiākau/Shotover River after the English residence of Ree's business partner, Shotover Park. They set off from Dunedin in 1860, heading south in search of land to farm, and unknowingly settled in the middle of what was to become Otago's biggest goldfield.

The district underwent a massive shift during the 1860s, from a pastoral to goldmining landscape. In 1862, gold was found in the Arrow River by jack Tewa (after whom jack's Point is named), a shearer who worked on Ree's farm. With the shearing season at the forefront of his mind, Ree's implored Tewa to keep his findings a secret. Word spread, however, and two more of Ree's farmhands walked away with 9 ounces of gold during a walk from what was known as The Camp (now Camp Street) to the confluence of the Kimiākau/Shotover and Kawarau Rivers.

Queenstown became a roaring goldmining town, and Ree's replaced his woolshed with the Queen's Arms Hotel to service the massive influx of people to The Camp. This was later sold to an ex-Prussian guard and renamed Hotel Eichardt in 1869. It was rebuilt two years later and the same hotel remains today. Frankton was named after Ree's wife Frances. In 1863 Government surveyors drew up townships at Queenstown and Frankton. The Otago Provincial Council decided to locate the hospital, courthouse and administrative buildings in Frankton due to its central location in the district, and Ree's had the contract to erect buildings for the police, warden's court and gold receiver. Due to a backlash by Queenstown businessmen, a subsequent decision was made to move the focus back to Queenstown, and the surveyed town of Frankton was not developed. The already built courthouse was bought by the Presbyterian Church, and the Lakes District Hospital was built on its current site.

The Central Otago Gold Rush saw towns pop up across the district, many of which were Chinese settlements. Due to the transient nature of mining, some of these became ghost towns as people left for bigger and brighter opportunities. When European miners left Arrowtown for the West Coast Gold Rush in 1864, Chinese miners were invited to fill the places. Chinese men, mostly from the Guangzhou area, came in the hope of finding their fortune and escaping the poverty and over-population of their hometowns.

In later years, the ara tawhito (traditional trail) linking Lake Wakatipu with Southland became used by those who couldn't afford the boat or rail passage, and aptly known as Insolvent Track.

Grand plans by Europeans to reveal alluvial gold by lowering river levels were first suggested in 1864, and came to life in 1926 when Kawarau Falls dam became operational. However, one dam alone wasn't enough to lower water to a level where previously unworked reefs became exposed. Plans for additional dams folded, and though the Kawarau dam was closed four more times, not much gold was recovered. The bridge over the top enabled a connection between Queenstown and Kawarau station that was only previously accessible by water. Work on a road link along the eastern side of Lake Wakatipu to Kingston began in the same decade and was completed in 1936.

Queenstown Airport was first granted its license to operate in 1935, with commercial flights becoming common in the 1950s. It was also during the 1950s that jet boats were seen in the rivers, and in 1965 the earliest iteration of the Shotover jet business was born. In 1947 the South Island's first commercial ski field, Coronet Peak, opened.

Early tourism and transport operator Mt Cook Company (1900's)

Old Frankton Church (1930, photographer Alexander Don)

Images from: https://www.queenstown.com

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Construction of Kawarau Bridge (1926)

2.4 POLICY AND PLANNING CONTEXT

Te Kirikiri/Frankton takes a holistic view of the natural and physical resources of the Masterplan area together with community aspirations. Given this future and strategic focus, it is critical to acknowledge significant constraints and identify the strategic issues in the context of the planning framework for the District and provide an overview of the strategic direction from the District Plan relevant to Te Kirikiri/Frankton.

For the purposes of the Masterplan, a stock-take has been undertaken focused on the direction offered under the current review of the District Plan, which is in turn informed by the partially operative Otago Regional Policy Statement (2016) and other national directives.

PLANNING CONTEXT

Te Kirikiri/Frankton is framed on all sides by Outstanding Natural Landscapes or Features. The Proposed District Plan (PDP) defines the extent of the urban areas of Queenstown, which includes all Te Kirikiri/Frankton, by an Urban Growth Boundary (UGB). Along its northern and southern edges, the UGB parallels the boundaries within the ONF/Ls.

The UGBs are a key tool developed under the PDP to manage urban growth. The UGBs work in tandem with provisions within the PDP to promote compact, well designed and integrated urban form. They also enable the protection of rural landscapes from sporadic and sprawling development by avoiding urban development outside of the UGBs and importantly enable urban development within the UGBs.

Within this urban area is strategically important physical infrastructure, including:

a. State Highway 6 and 6A (Designa on #84) by the New Zealand Transport Agency
b. Queenstown Airport, which has two main designa ons (designa on #2 and #4) by the Queenstown Airport Corpora on, that provide for:
c. The development and opera on of Queenstown Airport, that include establishing constraints on aircra oise and parameters for building; and
d. Establishing Obstacle Limita on Surfaces (OLS) to protect the safe opera on of the Queenstown Airport from vegeta on, structures, machinery and equipment.
e. The QLDC Events Centre and Aqua c Centre (Designa on #29) by the Queenstown Lakes District Council
f. Transpower Na onal Grid and Frankton electricity substa on (Designa on #1) the by Transpower New Zealand Ltd
g. Sewage Treatment Works (Designa on #46) by Queenstown Lakes District Council

As noted, this important infrastructure is provided for with the PDP through designations. The effect of these designations is to both enable the development and operation of these important components of public work and protect them from other uses that might interfere with their identified purpose. The national significance of the National Grid, comprising the substation and 110kv overhead line network through Frankton, is reinforced by the National Policy Statement Electricity Transmission. Likewise, Regional Significant Infrastructure such as Queenstown Airport and the State Highway network are afforded a degree of protection under the provisions of the PDP and Regional Policy Statement for Otago.

Appreciating that the Te Kirikiri/Frankton Masterplan is a result of a public and stakeholder inclusive process allowing for agreed changes to fall within the ambit of the Masterplan, the planning provisions recognise and protect most, if not all, of the above infrastructure and public works located within the area of the Masterplan. This includes boundaries of the ONF/Ls that encircle the Te Kirikiri/Frankton Urban area.

STRATEGIC ISSUES

The PDP sets several strategic issues for the District, each of which are considered broadly relevant to Te Kirikiri/Frankton, and need to be addressed in the District's pursuit of sustainable management. The Strategic Issues are:

Issue 1: The social and economic wellbeing and resilience of the District's communities may be challenged in future if the District's economic base lacks diversification, supporting infrastructure and growth.

Issue 2: Growth pressure impacts on the functioning and sustainability of urban areas, and risks detracting from rural landscapes, particularly its outstanding landscapes.

Issue 3: High growth rates can challenge the qualities that people value in their communities.

Issue 4: Inappropriate activities (use or development) have the potential to affect the intrinsic qualities and values of the District's natural environment, particularly its outstanding landscapes, which are valued by the community and from which the District derives significant economic value.

Issue 5: The design of developments and environments can either promote or weaken safety, health and social, economic and cultural wellbeing.

Issue 6: Tangata Whenua status and values require recognition in the District Plan.

It must be stressed that the strategic issues reflect the issues of importance at the present time and for the intended 10 year life span of the PDP. The time horizon of the Te Kirikiri/Frankton Masterplan is 30 years, and thus three times that of the PDP. The broader lens of the Masterplan scope and comparatively longer timeframe to which it extends may result in a differing emphasis on particular subject matters, as well as the inclusion of subject matters that are not necessarily covered in the PDP.

STRATEGIC DIRECTION

Derived from the Strategic Issues, the PDP establishes the over-arching strategic direction for the management of growth, land use and development in a manner that ensures the sustainable management of the District special qualities. Within the Te Kirikiri/Frankton urban area, the two most relevant group of strategic objectives relate to the development of a prosperous, resilient and equitable economy in the District[1] and that urban growth is managed in a strategic and integrated manner[2].

1 SO 3.2.1, Chapter 3, Proposed Queenstown Lakes District Plan
2 SO 3.2.2, Ibid

DEVELOPMENT OF A PROSPEROUS AND RESILIENT ECONOMY

Under the strategic objective relating to development of a prosperous, resilient and equitable economy the detailed objectives relevant to the Te Kirikiri/Frankton urban area, including the Remarkables Park mixed use centre is to function primarily as a major commercial and industrial service centre, and provides community facilities for the people of the Wakatipu Basin[3]. The detailed objectives also recognise the importance of diversification of the District's economic base and creation of employment opportunities through development of innovative and sustainable enterprises[4]. The planning framework of the PDP establishes Te Kirikiri/Frankton as a commercial area that integrates various nodes of development.

URBAN GROWTH AND DEVELOPMENT

The importance of urban growth is reflected by the strategic objective whereby urban growth is managed in a strategic and integrated manner[5]. This is expanded within the detailed PDP objective SO3.2.2.1 to establish that:

Urban development occurs in a logical manner so as to:

a. Promote a compact, well designed and integrated urban form;
b. Build on historical urban se lement pa rns;
c. Achieve a built environment that provides desirable, healthy and safe places to live, work and play;
d. Minimise the natural hazard risk, taking into account the predicted e ects of climate change;
e. Protect the District's rural landscapes from sporadic and sprawling development;
f. Ensure a mix of housing opportuni es including access to housing that is more a ordable for residents to live in;
g. Contain a high quality network of open spaces and community facili es; and,
h. Be integrated with exis ng, and planned future, infrastructure.

Aligned with this objective are further provisions with the PDP that expand on how UGBs will be used as a tool to manage growth with the larger urban areas, including to create a compact and integrated urban form that is coordinated with the efficient provision and operation of infrastructure services[6].

The demands on urban land within the UGBs is likely to be an issue in Te Kirikiri/Frankton over the life of the Masterplan and this is recognised with explicit direction within the PDP. Relevant policy guidance is provided for the need to allocate the land within the UGBs into zones reflective of the appropriate use and regard to important factors such as:

- Topography
- Connectivity and integration;
- Linkages with public transport;
- The need to provide a mix of housing densities and forms within a compact and integrated urban environment;

3 SO 3.2.1.3, Ibid
4 SO 3.2.1.6
5 SO 3.2.2
6 Objective 4.2.2A, Chapter 4, Ibid

- The need to make provision for the location and efficient operation of regionally significant infrastructure (national grid and Queenstown Airport);
- The need to provide open spaces and community facilities that are located and designed to be safe, desirable and accessible
- The function and role of the town centres and other commercial and industrial areas; and,
- The need to locate emergency services at strategic locations.

This planning framework is considered appropriate as an over-arching strategic direction to factor in the development of the Te Kirikiri/Frankton Masterplan.

URBAN DEVELOPMENT CAPACITY

Related to the provisions development under the PDP, a national policy directive has been developed in relation to urban development capacity through the National Policy Statement on Urban Development Capacity (NPS – UDC). The NPS – UDC requires Council to provide enough development capacity within their District Plans to ensure that demand can be met. This development capacity must be commercially feasible to be developed and supported by infrastructure. Within the NPS – UDC priorities are established for high growth areas, The Queenstown Lakes District is a high growth urban area.

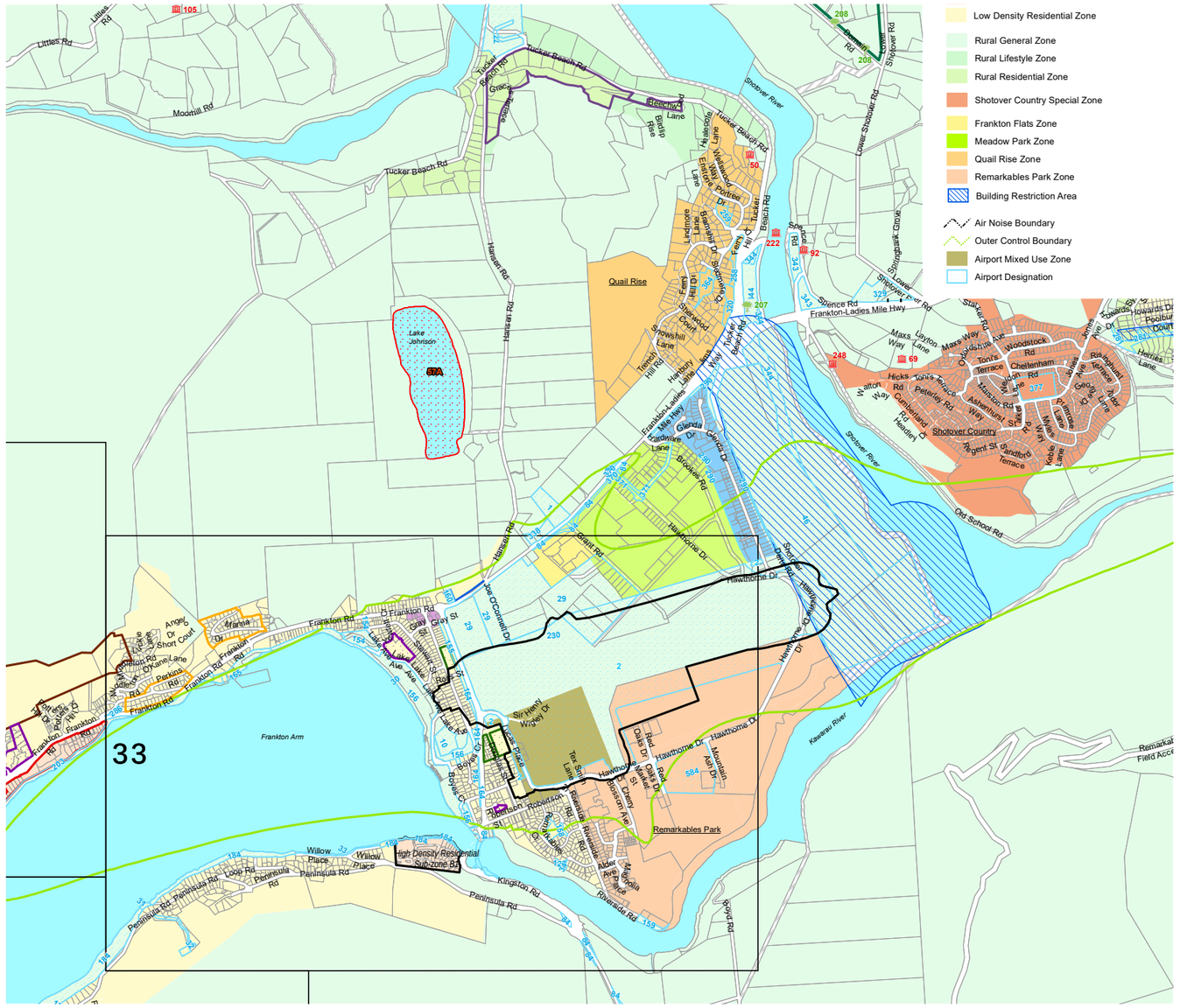
The Council has a duty when preparing Plans in terms of PDP policy PA1 to provide sufficient housing and business development capacity in the District's urban environment over the short (less than 3 years), medium (within 3 – 10 years) and long (10 – 30 years) term. Te Kirikiri/Frankton is a significant part of the Queenstown urban area and will continue to perform an important role in providing enough land for business development under the NPS – UDC as a "major commercial and industrial service centre"[7].

QUEENSTOWN LAKES SPATIAL PLAN

The District Plan is currently undergoing an elongated review, having been split into a number of stages. As significant elements have been only recently decided after the initiation of this Masterplan, opportunity to retrospectively influence them is not available. QLDC did begin a Future Development Strategy, however this has now been superseded by the Ministerial requirement for a Spatial Plan (Queenstown Lakes Spatial Plan) which is a multi-agency project led by MHUD, QLDC and Kāi Tahu.

This forward planning process allows consideration of the ten-year period, commensurate with the District Plan and includes matters such as the capacity for various types of development to be considered alongside infrastructure. It also provides an opportunity to consider the District's growth out to a 30-year planning horizon (2048), which aligns with the district-wide strategic transport models.

In general QLDC's transport planning team have fed into the relevant chapters in the latter stages of the District Plan Review, particularly the Transport Chapter, to further enable high level alignment with the GPS. Similarly, submissions have been made on the review of the QLDC Engineering Code Of Practice to promote the key GPS themes.



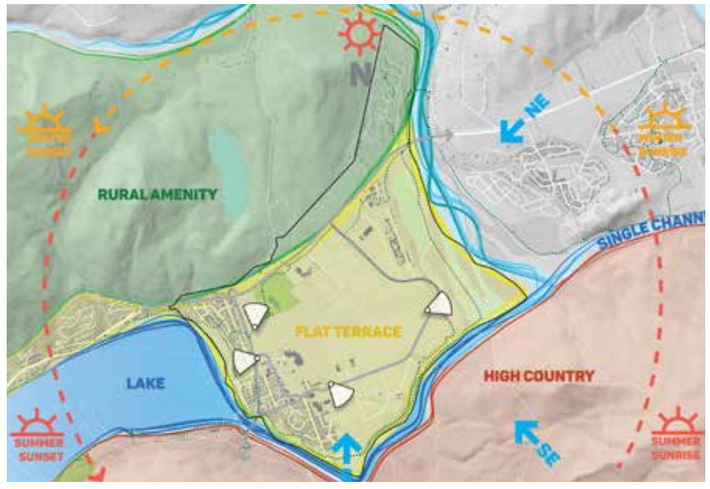
Maps 31 and 31a from QLDC Operative District Plan

7 Policy 4.2.2.2, Ibid

2.5 SITE AND CONTEXT ANALYSIS

OVERVIEW

Te Kirikiri/Frankton has been broken down into layers, allowing analysis of more specific qualities within the Masterplan area. Both biophysical and human influences are analysed through desktop research and ground-based assessment, revealing patterns, constraints and opportunities within the Masterplan area and its immediate context. This helps to define a set of parameters for the Masterplan to respond to and provides an evidence base to support decision making.



NATURAL LANDSCAPE AND ENVIRONMENT

The area principally sits on a flat, alluvial plain with the steeper terraced banks of the Frankton Beach, and Kimiākau/Shotover and Kawarau Rivers naturally defining three of its edges. Queenstown Hill defines the fourth. All are classified as either an Outstanding Natural Feature or Landscape (ONF/L) and provide a distinct, high-quality scenic outlook and recreational opportunities. Each of the water interfaces are different, including the extensive Whakatipu-Wai-Māori/Lake Wakatipu , falls and single channel of the Kawarau River and braided Kimiākau/Shotover River. Weed (e.g. willows) and pest management remain key issues for all of them. Beyond the Kawarau River to the south, the taller Remarkables range and Peninsula Hill are also ONLs, providing an impressive scenic backdrop. The more distant Crown Range completes the sense of enclosure within the overall Wakatipu Basin. The landscape setting and the backdrop of the mountain ranges is a fundamental component of the character of the area, including creating a unique arrival experience for those entering the area.

With the Remarkables range to the south, Te Kirikiri/Frankton largely retains a sunny aspect. It has longer sunlight hours than south-facing Queenstown, due to its relief and relative distance from overshadowing of Queenstown Hill. The number of daylight hours are halved from summer to winter, so consideration will need to be given to maximising winter sun to ensure environmental efficiency.

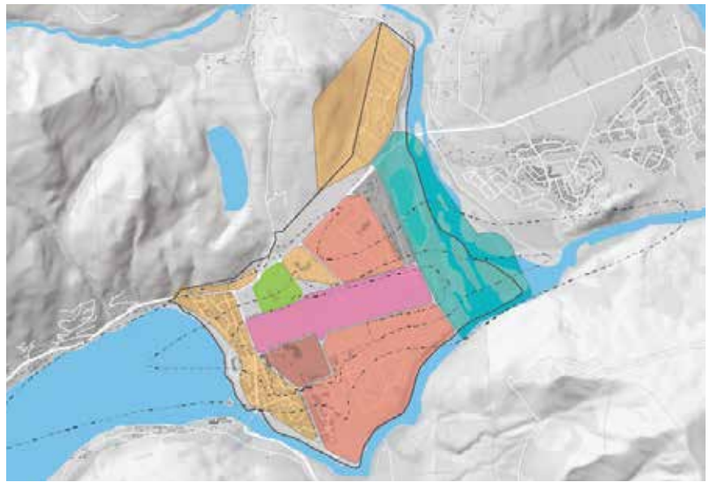
Te Kirikiri/Frankton has an existing network of open space that fringes the lake and river edges with Frankton Beach and Domain being the current focus for recreational activities. The Kimiākau/Shotover River Delta is an extensive underutilised area currently mainly being used for recreational biking. Queenstown Events Centre (QEC) provides more formal recreational space, including indoor aquatics and dry courts and larger outdoor sports pitches. The format of QEC provides visual relief and maintain views from the Frankton - Ladies Mile Highway. The Frankton Golf Centre with nine holes and a driving range is located adjacent to QEC.

LANDOWNERSHIP

Smaller lots (warmer colours) tend to be the more established parts of Te Kirikiri/Frankton, which have already been broken up into a diverse range of ownership. This is where incremental growth, such as the original parts of the town along the edge of Frankton Arm, and larger suburban developments, such as Remarkables Park, Quail Rise and the Glenda Drive industrial area, has already occurred. Larger tracts of land (cooler colours) remain under single ownership. The Queenstown Airport Corporation has a major land holding, occupying much of the central part of the masterplan area. Larger private development areas exist to the north and south of the Queenstown Airport, at Five Mile, Queenstown Central and Remarkables Park, which are progressively being fragmented through a staged release of land as their own masterplans are being realised. Several large, privately held, greenfield lots remain undeveloped on the northern side of the Frankton-Ladies Mile Highway.

Queenstown Lakes District Council own, in addition to road reserves, parks and reserve areas along the rivers and lake frontages, as well as the large recreation sites associated with the Queenstown Events Centre and Frankton Golf Centre.

Those areas of fragmented land ownership may make comprehensive development more challenging and incremental infill is likely to take longer to implement. However, this may result in a more incremental and varied outcome that is ultimately more characterful, organic and responsive to the local environment, provided it is guided in a coordinated way and the development is conducted in line with shared aspirations. The larger tracts of land naturally present bigger opportunities for more transformational projects. However, the challenge is ensuring that larger developments of today are future-proofed for integration with respect to the changing activity, transport and infrastructure needs.



LANDUSE AND ACTIVITY

Three main urban centres have developed in relative isolated pockets across the Masterplan area with QEC and Queenstown Airport situated in between. These can be broadly characterised as follows:

- Frankton Village, located at the junction of Frankton-Ladies Mile Highway, Frankton and Kawarau Roads roundabout, provides basic neighbourhood centre and highway services, such as fast food and petrol stations;
- Remarkables Park Town Centre and Remarkables Place in the south caters to a variety of needs including retail, hospitality, education and currently hosts the Remarkables Market and Frankton Library. With its proximity to the international Queenstown Airport, Remarkables Place is starting to focus on a more visitor-orientated hotel and hospitality; and
- Queenstown Central and Five Mile developments provide several larger format retail anchors with a medium to small format retail street being developed in parallel to Frankton-Ladies Mile Highway. These developments are tending towards providing a more local offering associated with servicing the residential communities along State Highway 6/6A.

An industrial area and large format trade-based stores are located to the north east of Te Kirikiri/Frankton, between Hawthorne Drive and the terrace edge above the Kimiākau/Shotover Delta, with zoned areas for expansion adjacent to Queenstown Airport. Larger industrial activities, such as a concrete plant, refuse transfer centre and warehouse operations occupy the northern Glenda Drive area.

Existing residential development is predominantly lower density, focused around Frankton Village. A more recent shift towards medium density development is focused around Remarkables Place and Queenstown Central with potential for further development through future stages of Remarkables Park, Quail Rise South and proposed Mixed Use Business Zones. The main community anchors are the QEC, that hosts many sporting and community events throughout the year; Wakatipu High School, currently the only secondary school in the Wakatipu Basin; and Lakes District Hospital.

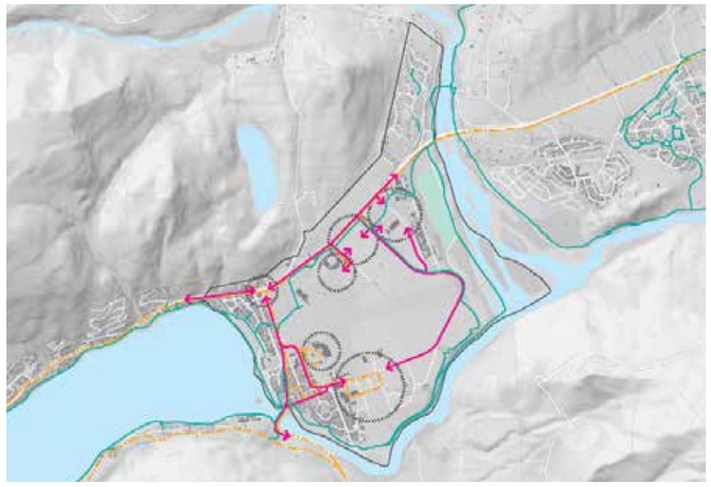
BUILT FORM AND TOWNSCAPE

The area has a range of development typologies, which have occurred sporadically in a piecemeal, market driven fashion. While pockets of more comprehensive site planning have occurred, such as at Remarkables Park, Five Mile and Queenstown Central, it is often still in isolation and reflective of a narrower set of drivers and aspirations. The central location of the Queenstown Airport and its associated height and noise constraints has resulted in the emergence of several disparate areas of development with their own distinct character. The quality of buildings and streetscape is varied and is often a reflection of the location, activity and age. Remarkables Park and Queenstown Central have placed effort on creating a richer urban experience, with greater variety and more human scale to development.

While some more urban typologies have been developed within Five Mile, Queenstown Central and Remarkables Park, most are typically larger format commercial buildings at a height of two to three stories with lower site coverage to allow for large areas of surface car parking. Outside these centres, light industrial and trade supply warehouses are an equivalent height with larger footprints and more expansive parking and loading areas.

The residential area on the edge of Whakatipu-Wai-Māori/Lake Wakatipu is typically low rise, detached or semi-detached housing on generous sections. Properties within the more established neighbourhoods are generally open to the street with no predominant style or typology. The more recent residential developments tend to be townhouses and apartments. There is no cohesive or underlying character that informs the residential development beyond the typical qualities associated with the age, construction type and market trends.

Overall the building form does not have a cohesive character or form and has largely been driven by isolated development needs of standalone destinations. While there has been some coordinated planning, it is still only isolated to small areas within singular ownership, which reinforces the lack of integration between the areas and opportunities offered by the unique and contained landscape setting of Te Kirikiri/Frankton overall.



MOVEMENT AND CONNECTIVITY

As a gateway to the District by land and air, and at the junction of State Highways 6 and 6A, Te Kirikiri/Frankton is an focal point for local and visitor activities. As such, the movement network plays a vital role in the functionality of the Masterplan area and the broader District.

The primary mode of transport within the District is currently by private vehicle. This, combined with only two vehicle bridge crossings over the Kimiākau/Shotover and Kawarau Rivers into the Masterplan area, results in congestion for all modes, including cars, buses, coaches, freight and trade vehicles. Congestion is especially evident on the Frankton-Ladies Mile Highway and Frankton Road through to Queenstown.

Though there are public bus, tourist coaches and private ferry services, the mass transport network is limited, uncoordinated and infrequent; further encouraging the use of personal or self-drive, hire vehicles. As a result, the provision for car parking and storage/servicing of rental cars and campervans is extensive across the Masterplan area, particularly around Queenstown Airport. Some park and ride facilities are being utilised by the Queenstown Airport within the Masterplan area.

The Queenstown Trails network connects Te Kirikiri/Frankton to Queenstown and outlying residential areas, such as Shotover Country, Lake Hayes Estate and Kelvin Heights. The trails follow routes along the Lake and river edges and cross via historic bridges. Although well-used by recreational cyclists and walkers, they are not as direct for commuter cyclists. Much like the fragmentation of land ownership and uses, the active travel routes through the central parts of Te Kirikiri/Frankton lack permeability, crossing points and adequate facilities. The State Highway infrastructure traversing through urban areas reinforces severance and sense of disconnection. In general, the quality of the urban environment and road network being dominated by vehicles has created an environment that is car dependent and also unwelcoming and unsafe for pedestrians and cyclists.

2.6 CONSTRAINTS AND OPPORTUNITIES

CONSTRAINT	TOPIC	OPPORTUNITY
The existing sense of openness and views towards the scenic landscape backdrop are a feature of the gateway experience and a community value. Provision of new infrastructure and an intensification process could potentially degrade this.	**Maintaining and enhancing views and gateway experience**	Strategically position built form to frame views and/or protect view shafts across existing areas, such as QEC, towards the surrounding landscapes. Create an urban environment that is befitting of the natural landscape character within foreground and mid-ground views, including helping to offset any loss of longer views through the internal provision open spaces and higher amenity public realm.
The existing Outstanding Natural Features of Te Kirikiri/Frankton's lake and river boundaries have landscape values that need to be maintained and enhanced.	**Connection to the natural environment**	Sensitive development and management of existing esplanade reserves can enhance natural landscape characteristics, instil greater landscape appreciation and improve their functionality for community and visitors. Strengthening accessibility from Frankton Flats to lake, rivers and wider mountain landscapes helps offset intensification and creates new local destinations, taking growth pressures off existing places like Frankton Beach.
There is a need to ensure that the growing roles of various centres within Te Kirikiri/Frankton and Queenstown Town Centre do not overly compete and are complementary to each other.	**Relationship between centres and with Queenstown Town Centre**	Te Kirikiri/Frankton helps to accommodate rapid growth within the District without compromising the special character and qualities of Queenstown Town Centre. Tailoring activity mix and built form provides for both local and visitor offerings in appropriate places, without an overemphasis on each. Convenient movement connections between centres better enables each to develop a niche role, while allowing for a broad range of user needs to be met. Creates new, high quality destinations and a stronger urban experience that encourages visitors to stay longer.
The two bridges across the Kimiākau/Shotover and Kawarau Rivers constrain vehicle access into Te Kirikiri/ Frankton from the east and south. This is creating bottlenecks during peak hours and highlights the potential for major access issues as Queenstown grows and/or the event of other disruptions. Provision of wider or additional vehicle bridges are costly, need to address landscape character effects and do not address other downstream constraints into other parts of Queenstown, particularly along Frankton Road.	**Bridge Connections**	Encouraging modal change through enhanced public transport, regional / tourist coach services and active travel infrastructure and management that provides direct, regular and convenient access for commuters and visitors would help alleviate the pressure for more essential road users, such as freight, trade and emergency services. Active travel bridges are lower cost and can be more readily integrated into the landscape to provide early wins. More emphasis on accommodating growth and provision of key attractions within the Masterplan area could minimise the need to travel outside Te Kirikiri/Frankton over the longer term. Retaining two key bridge crossings maintains the defined vehicle gateways into the Masterplan area and this experience could become stronger through landscape and urban enhancements that respond to the unique setting and Kāi Tahu history of the area.
Shallow water depth at the Frankton Arm lake edge restricts larger water services from operating. More suitable areas at Frankton Marina, Ōterotu/Kawarau Falls and Quayside are currently disconnected from existing urban centres and Queenstown Airport through distance, State Highway severance, steeper topography and / or river rapids. Current requirements for car parking associated with water services could potentially undermine the natural character and user experiences along esplanade reserves. Queenstown Airport noise contours and safety zones limit the types of activities and the degree of intensification that can be accommodated along Frankton Beach and Kimiākau/Shotover Delta. Current parks and reserves along water edges are well used by the local community, although facilities provided are generally poor.	**Water connectivity**	Water-based services can provide a unique mode of transport that provide a strong connection to the local environment and relief from the congestion on key road connections. Given the proximity of Lake Wakatipu and Kawarau River frontages to the activities within Te Kirikiri/Frankton urban area, particularly Remarkables Park and Queenstown Airport, there is an opportunity for water services to be expanded and better utilised as part of the suite of public transport options and tourism services. With lower density development along the lake edge, enhanced active travel connections across Kawarau Road and down the terrace banks will enable more intensive activities (e.g. Queenstown Airport, Wakatipu High School, Remarkables Town centre) and denser parts of the community to access the water amenities and services. Clear visual connections with the lake and river in conjunction with legible way-finding approaches would support this. The continued development of Remarkables Place, via Market Street towards Quayside, would support larger jet boat services via Ōterotu/Kawarau Falls and Kawarau River. The lack of larger water services within the existing Frankton Beach area will provide opportunities to increase the appeal for a broader range of recreational activities, such as kayak and paddle-boards, activating this area in association with more direct active travel connections to QEC and Frankton Village.
Landslides have recently occurred at Ōterotu/Kawarau Falls as part of establishing the new bridge crossing and have been mapped in the past where steep terrain and/or soil typology contributes to slope instability. As indicated by the previously recorded landslide activity, the eastern edge of the Masterplan area along the Kimiākau/Shotover River may suffer stability issues, and appropriate setbacks and/or stabilisation efforts should be employed here.	**Land stability**	Revegetation with indigenous species of importance to Kāi Tahu and further naturalisation of the esplanade reserves along the river and lake edges, in combination with Willow, wilding pine and other weed / pest management, could potentially improve the quality and stability of the land on the steeper terrace embankments and enhance their ecological outcomes and sense of place for Te Kirikiri/ Frankton. This could also provide opportunities for recreation, active travel, Mahika Kāi and amenity for more intensively developed parts across the Frankton Flats.

CONSTRAINT	TOPIC	OPPORTUNITY
The proposed decommissioning of the oxidation ponds will likely need to retain some future resilience adjacent to the new wastewater infrastructure being provided under Project Shotover. Repurposing of this relatively large space will need to be cognisant of the operational requirements of the Queenstown Airport, such as noise and safety (i.e. management of potential bird strike) and Kāi Tahu cultural values. The considerable level change between Kimiākau/Shotover Delta and Frankton Flats needs to also be considered.	**Oxidation ponds**	There are opportunities to re-purpose the oxidation ponds to consolidate and cluster other infrastructure and gravel extraction activities towards the northern end of the Kimiākau/Shotover Delta, closer to SH6 access points. Alternative active travel routes could avoid this area by providing an access to the north of SH6, to maintain bridge crossing heights, or via a longer, more graduated trails southward, to connect with the balance of the oxidation pond land. Rehabilitation of the ponds could utilise the existing catchment areas and clean fill available within the Delta to provide informal recreation facilities, ecological enhancement and potentially kā rauemi (resource harves ng areas) through close engagement with Kāi Tahu and stakeholders. This could add considerable additional amenity to support the intensification of Frankton Flats and other growth within the Wakatipu Basin.
From the existing substation midway along the Frankton-Ladies Mile Highway, high voltage transmission lines run along the northern side of the highway, cross the Kimiākau/Shotover Delta and River, before tracking through the residential developments of Shotover Country and Lake Hayes Estate. Within the Masterplan area, the transmission line corridor crosses potential develop-able mixed use and residentially zoned land along SH6 creating complex access and buffer issues. However, the relocation of the existing transmission lines and substation is likely to be a significant and expensive undertaking and a feasible alternative location will need to be found.	**Transmission lines and substation**	There is potential to relocate power infrastructure from deep within the Masterplan area by truncating the transmission line corridor. This could open up a significant opportunity to realise the development potential and amenity across highly accessible parts of Frankton Flats, enabling landowners to make more efficient use of the land with improved connectivity and the removal of buffer constraints.
There are some parts of the Masterplan area where the establishment of new residential activities will likely be constrained, given noise effects resulting from Queenstown Airport's operation, natural hazard areas and the need to provide for other land use needs across the District.	**Increasing housing supply and choice**	Given extensive areas of existing and proposed larger suburban households are already provided for across the District, land available within the Masterplan area for new housing developments and/ or infill housing presents an opportunity to provide different housing typologies. This could ease pressure on increasing housing demand for smaller, more affordable households in the area. The areas potentially available for residential and visitor accommodation activities tend to correlate well with key transport routes through and around the Masterplan area. This provides opportunities for intensification of housing where accessibility levels can be enhanced in parallel.
Queenstown Airport height and noise restrictions apply to both the main and cross wind runways, preventing taller development typologies and more noise sensitive activities close to existing flight paths.	**Queenstown Airport height contour**	Proposed removal of the cross-wind runway lessens the extent of both the building height and air noise boundary restrictions in greenfield or underdeveloped areas to the south and north of the Masterplan area. Those areas also align with existing centres and key public transport routes where accessibility levels could support more intensive land use activities.
The flood hazard area extends over the low-lying land at the confluence of the Kimiākau/Shotover and Kawarau Rivers and this out-wash plain is unsuitable for built development of any form.	**Flood plain implications**	Ecological enhancement of the areas within the flood plain may provide an opportunity to strengthen the biodiversity, natural characteristics and Kāi Tahu values (incl. Puahuru) of Te Kirikiri/Frankton. Careful consideration will need to be given to its proximity to the Queenstown Airport flight path and associated constraints with respect to bird strike and other safety considerations.
State Highway 6 and Queenstown Airport create barriers for connectivity to and between centres and other major activities within the Masterplan area, including Wakatipu High School, Queenstown Event Centre and Lakes District Hospital.	**Integration between local centres and key destinations**	There are opportunities to better utilise existing movement corridors around Queenstown Airport with more frequent and higher capacity public transport and dedicated active travel routes to reduce car dependency and improve connectivity between the existing and emerging centres, including the Queenstown Airport terminal. This could encourage more linked trips to enable centres to benefit from each other and reduce land take from the car parking required to service these internal trips. Providing a higher quality and legible street and active travel network with improved way-finding approaches could also help mitigate the perceived distance between these centres and other major activities. This would help present the Masterplan area as a more integrated, urban destination.
State Highway 6 currently severs the Masterplan area on two sides with heavy traffic and limited crossing opportunities. This will likely become a bigger constraint as the community grows into available develop-able land, particularly adjacent to the Frankton-Ladies Mile Highway. Parts of this section of the highway are currently subject to an associated 100m Effects Area and a 40m Reverse Sensitivity Buffer, which also allows for more distant views to the Remarkables.	**SH6 and associated effects areas**	There is potential to upgrade the existing rural State Highway to major urban arterial with appropriate speed zones, intersections and infrastructure improvements to reduce community severance, improve the perception of safety, better access adjacent development opportunities and encourage mode shift. With the potential to upgrade the major arterial into a higher amenity corridor comes the potential to make more efficient use of the buffer area. Opportunities exist to establish compatible adjoining land uses with active frontages that could further benefit from the treatment of a more urban street-like corridor. This approach could also improve the arrival experience, which is current characterised by larger, relatively blank building forms, complemented with strategically placed view shafts to the wider landscape setting.

3. ENGAGEMENT

3.1 APPROACH

The aim of engagement process has been to ensure the plan for the future of Te Kirikiri/Frankton aligns with the aspirations of the local community, Kāi Tahu partners and key stakeholders, alongside responding to the constraints and opportunities within the Masterplan area and beyond. The engagement process for the Te Kirikiri/Frankton Masterplan is a continuation of the inclusive approach that was started with by W2G partnership at the outset of the project.

Following the initiation of the project, a Communication and Engagement Plan was developed outlining an inclusive approach that supported strong representation amongst project partners, key stakeholders and the wider community as the Masterplan and ITPBC were progressed.

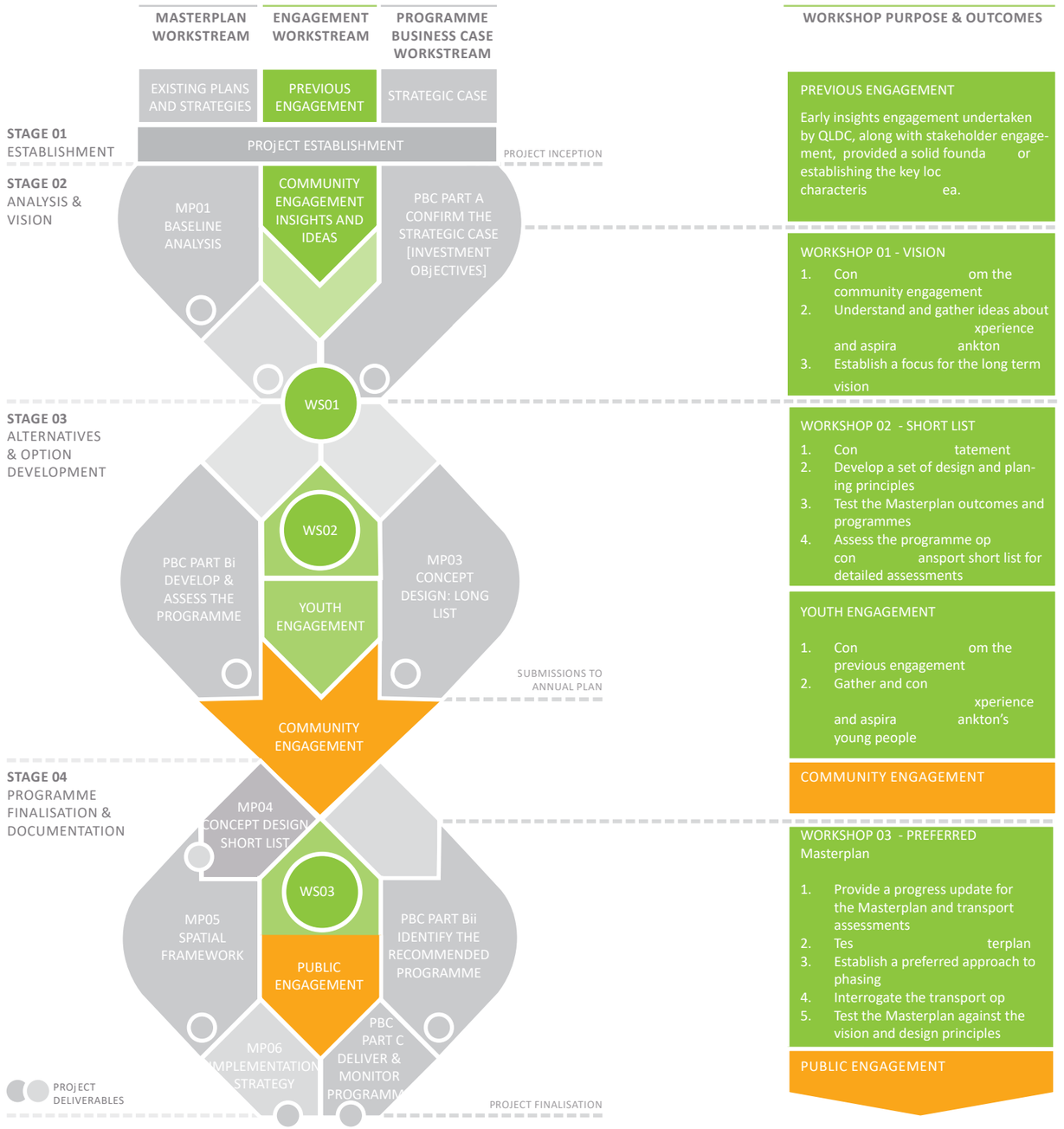
The project team has been mindful of the number of concurrent projects and initiatives, particularly with respect to overlapping scope, consistency and integrity of data sources and the risk of engagement fatigue. Therefore, the engagement on this project has been coordinated and at times consolidated with other initiatives in the Wakatipu Basin, including the Frankton to Queenstown Single Stage Business Case and Wakatipu Basin Active Transport Business Case.

The Communication and Engagement Plan was prepared in accordance with NZTA's Public Engagement Guidelines (2016) and QLDC's Significance and Engagement Policy (2014). It identified who to engage with, when to engage and the level of engagement based on the IAP2 spectrum of public participation. The Plan was a live document throughout the preparation of the Masterplan and was updated throughout the duration of the project to reflect updated or emerging stakeholders and amendments to the approach.

Engagement methods throughout the project have ranged from weekly meetings, workshops, public engagement exercises and coordination and collaboration between project teams, to more direct and targeted communication with stakeholder groups, individuals and landowners.

The engagement approach was underpinned by the following objectives:

- Improve project outcomes by seeking and integrating stakeholder feedback into the project design;
- Clearly communicate the strategic and local need for the project and the benefits of the project for Te Kirikiri/Frankton and the wider Wakatipu Basin;
- Raise public awareness of the project and clearly articulate the ability to provide feedback and how this will be used;
- Identify and notify all stakeholders that could be affected by or are interested in the proposal and when and in what form they may be interested in engaging;
- Have engagement approaches that reflect the different types and needs of stakeholders;
- Provide stakeholders the information they need to understand and provide feedback on the project;
- Provide a transparent process in which stakeholder feedback is given fair consideration as part of decision making on proposals and that this is clearly articulated; and
- Articulate that this will lead to positive transformation for Te Kirikiri/ Frankton, whilst still retaining those elements that make this a special place.



3.2 ENGAGEMENT MILESTONES

A well-considered and integrated stakeholder engagement approach has been fundamental to the successful development of the project. The establishment of a shared vision and agreeing a clear and concise set of investment objectives with the key stakeholders was critical to developing a robust and tailored Masterplan and ITPBC. A series of workshops provided gateways at decision points throughout the project as a means of bringing stakeholders together to form a common understanding of the challenges and opportunities, and develop a strong sense of ownership of the project and its outcomes.

ESTABLISHMENT WORKSHOPS

Workshops for the establishment of the Masterplan were undertaken in May and june 2018 as part of the formulation of the Establishment Report. These identified issues,opportunities, and themes that informed the Masterplan.

EARLY INSIGHTS COMMUNITY ENGAGEMENT SUMMARY

Community engagement was undertaken at the outset of the project to understand aspirations and challenges as well as setting the scene for future engagement.

According to the summary report, the top things people love about Frankton are its central location, the sunshine and scenic views, that it is convenient to get around and retains a strong local feel. The greatest challenges from locals' perspectives are traffic congestion, insufficient road infrastructure, Queenstown Airport growth, noise pollution, car parking overflow, ad hoc growth of commercial areas, the loss the local feel and lack of a central community hub.

The local community would like to see Frankton evolve into a well-connected hub, with a strong community heart and more opportunities for sport and recreational activities. There was also a strong emphasis on Frankton becoming a transport hub with efficient public transport.

MASTERPLAN WORKSHOP SERIES

Four workshops were undertaken, each with a well-defined set of outcomes that contribute jointly to the Masterplan and ITPBC. The approach, focus and key outcomes sought from each of the workshops is set out here;

Workshop 1 – Establishing the Vision

Workshop one was an interactive and ideas-based workshop that drew together the key tenets of a distinctive long terms vision - experience, aspiration, local qualities and focus. The workshop built upon the Early Insights community engagement, which provided the source for understanding the local qualities. The intended outcomes of the workshop were:

1. Con rm the themes from the community engagement
2. Understand and gather ideas about the posi ve quali es, experience and aspira ons of Frankton
3. Establish a focus for the long term vision

The workshop was focused on future opportunities for Te Kirikiri/Frankton in line with the visionary theme of the exercises.

The workshop was structured around several group and individual exercises to enable participants to debate and discuss their ideas freely and with a range of other stakeholders. As the topics were quite broad, it was important for there to be multiple levels of discussion so that a consensus for the future direction and vision could be reached by the end of workshop.

The exercises were set up to allow participants to express their personal opinions, debate and prioritise, however role playing enabled participants to understand and appreciate the future opportunities from a range of perspectives. Each exercise built on the previous one and encouraged participants to contemplate the needs of the broader community while forming a consensus around the direction the vision should take. Three exercises were undertaken that covered the following subject matter:

- A legacy for future generations
- Priorities for Frankton's future community
- Creating an image of future Frankton

Workshop 2 – Developing Design Principles and Masterplan Outcomes

The second workshop of the series was an integrated and interactive session that confirmed the findings from the first workshop and agreed the foundations of the Masterplan to develop options and programmes. The outcomes sought from the workshop were:

1. Con rm the vision statement
2. Develop a set of design and planning principles
3. Test the Masterplan outcomes and programmes
4. Assess the programme op ons and con rm the transport shortlist

The workshop comprised a set of fast paced and focused exercises that moved from strategic concepts down to specific actions and priorities. Stakeholders were tasked with providing expert advice and opinions, balancing their views with those of the wider community. The workshop utilised a range of exercises and recording techniques to build a comprehensive picture of ideas, preferences and discussion. This included role playing, mapping, data collection, scoring and programming.

The first half of the workshop was centred on higher level Masterplan outcomes to help build the bigger picture, with the second half dealing with more targeted land use and transport matters in tandem.

The three principal exercises undertaken were as follows:

- Agreeing Design and Planning principles and creating a baseline scenario for Frankton
- Developing a longlist of actions to deliver the Masterplan Outcome
- Identifying a short list of transport programme options

Workshop 3 – Preferred Masterplan and Transport Programme Options

This workshop critiqued the preferred draft Masterplan and gathered feedback on proposed staging over time. A range of interactive exercises were undertaken with the focus shifting from the strategic scale into assessments of precincts. The key outcomes sought from the workshop were:

1. A progress update for the Masterplan and transport assessments
2. Tes ng and cri quing the dra referred Masterplan
3. Establishing a preferred approach to implementa on and phasing
4. Interroga ng the transport op ons
5. Tes ng the preferred Masterplan against the vision and design principles

The exercises enabled the project team to understand which components were supported by the stakeholder group, changes that should occur, or if additional ideas were either not represented or unclear. It was also an opportunity to clarify critical interdependencies between Masterplan actions and parallel projects underway within the district. The workshop exercises revolved around the following:

- Testing and validation of the overall Preferred Masterplan
- Identifying the defining characteristics of each precinct/character area
- Creating a phasing plan to best deliver the Masterplan

Youth Engagement

Given the emphasis on creating a legacy for future generations, it was considered fundamental that young people were involved in developing the vision. Three schools participated in the workshops, including Wakatipu High School, Remarkables Primary School and Queenstown Primary School. The principal outcomes sought from the workshops were:

1. Con rm the themes from the previous engagement
2. Build a clearer picture of the young people within the community
3. Gather and con rm the posi ve quali es, experience and aspira ons.

Two exercises were undertaken in each of the selected schools, with approximately 50 children, ages 8-14, participating. The first exercise was an individual task where participants explained how they fit into the community and what they thought the existing qualities of Frankton were. This provided a better understanding of the diversity that exists within the community.

The second exercise was the same as the stakeholder vision exercise in workshop one, and encouraged participants to contemplate what Frankton might look like in 30 years' time. While there were some common themes, the younger participants tended to be a lot more aspirational, positive and less inhibited by problems of today. Engaging with the younger members of the community allows a better understanding of Frankton's user group and their values. It provides an opportunity for them to gain knowledge and meaningfully contribute to improving the quality of life within their community. It also provides an opportunity to balance some of the ideas and priorities of the key stakeholders from a completely different, but equally important perspective.

3.3 THE VISION

A vision focuses community aspirations and provides a long term aim. It embodies a strategy for the future, that everyone can sign up to and work towards over a period of time. It should be concise and locally distinctive. Given the disparate nature and pace of development in Te Kirikiri/Frankton, establishing a shared vision that draws existing and future development together is critical. The vision will set a direction and act as the backbone to a decision making framework that ensures that planning and growth are coordinated in a manner that balances outcomes, but that ultimately still delivers on the original intent set out by the community and stakeholders.

DEVELOPING THE VISION

A model to help stakeholders assemble a vision statement was developed and designed into the outputs from the first workshop. Based on research of successful vision statements, the project team's approach broke the vision statement into four components - experience, aspiration, local qualities and focus. Each of tenets of the model are important parts of creating a powerful and locally distinctive vision statement. This approach to formulating the vision statement enabled the stakeholders to drive the process, and fully understand and influence the outcome. It also enabled engagement that had been undertaken during the establishment stage of the project to be incorporated.

This diagram shows the approach taken to formulate the vision statement; breaking it down into aspirations, local qualities and experience which combine to determine the focus.

“Te Kirikiri/Frankton, where our pathways, the lake and the rivers meet.

At the heart of Te Kirikiri/Frankton is a hub that connects a bustling community of businesses, residents and visitors to Queenstown and the region. Embracing sustainable development, future generations live in harmony with the natural environment.”

SUMMARY OF WORKSHOP FINDINGS

DETERMINING THE FOCUS

An interactive exercise called “Postcards from the Future” was designed to help stakeholder's debate and discuss their preferred focus for the long-term vision for Frankton. Participants were asked to form new groups and select eight postcards that represent Frankton in 30 years’ time. The groups were allowed to interpret the images however they liked and were asked to note on the reverse of the card why they chose them.

After selecting the initial 8 postcards, the groups were asked first to remove half of the postcards and then subsequently select a single postcard that represented the focus for the long-term vision for Frankton. The process of elimination and prioritisation afforded interesting debate. Of a possible 120 postcards the five groups independently selected one of the two images to the right. These represented a mixture of environmental, character and community outcomes.

A similar exercise was undertaken as part of the youth engagement. The postcards selected by primary and secondary school pupils were relatively distinct from one another in terms of theme and nature, with primary school pupils selecting images relating to the landscape, places and setting, whereas high school pupils were much more focused on activities, objects and architecture. The youth groups tended also have a more varied and arguably more balanced view of the future needs compared to the adult stakeholders. On the whole there were a lot of overlaps particularly with regard to the need to create a family friendly setting and a strong sense of connection to the natural environment.

60%

NATURE/ OPEN SPACE
COMMUNITY FACILITIES
ACTIVATED EDGES
PEOPLE FOCUS
MIXED USE AND PLAZAS
VISITOR ACCOMMODATION
GONDOLA
FOOD & BEVERAGE

40%

WATERFRONT
FUTURE GENERATIONS
FREE FACILITIES
PUBLIC RECREATION
NATURAL PLAY GROUND

20%

TOURIST ATTRACTION
PEACEFUL
HOUSING CHOICES
HOLIDAY SPIRIT
WINTER WONDERLAND

33%

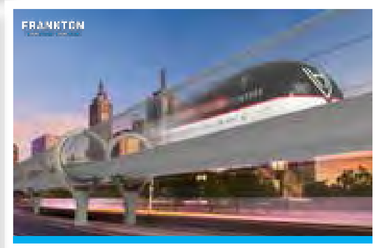
WELL-BEING
BRING PEOPLE TOGETHER
ARTS
COMMUNITY
TOURIST ATTRACTIONS
BIG GAMES/ EVENTS
NATURE
SAFE
RELAXING

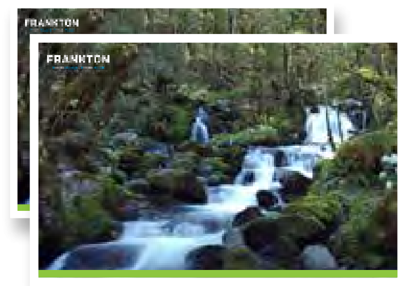
27%

SHORT DISTANCE
ECO FRIENDLY
REDUCE CARS
TRANSPORT
FUTURISTIC
CONNECTED TO NATURE
GOOD TRANSPORT SYSTEM

20%

CLEAN WATER
FUN PLAY
LESS POLLUTION
NATIVE FOREST
SUSTAINABLE
SAVE ENERGY
FRESH AIR
NATURAL ENVIRONMENT





3.4 DESIGN AND PLANNING PRINCIPLES

A series of design and planning principles have been collaboratively developed with stakeholders. These principles drew upon several sources, including background research, the vision workshop, targeted stakeholder engagement and the community engagement findings that preceded this Masterplan. The design and planning principles are a development of the vision statement and provide criteria for evaluating the Masterplan outcomes. The criteria have also been used to benchmark for how Te Kirikiri/Frankton currently sits with respect to the long-term vision and can be used to chart the impact that actions and interventions will have towards the delivery of the Masterplan over time. While the principles are robust and future focused, given the 30 year timeframe for the delivery of the Masterplan, it is expected that the Design and Planning principles will be reviewed, updated and amended as necessary to reflect new challenges, opportunities and aspirations that are likely to emerge over the next three decades. They can also be used as a basis of assessing the appropriateness of subsequent interventions during this time.

COMMUNITY

WHANAUKATAKA

An inclusive environment where spaces and facilities are provided that enable the community to grow and connect.

Criteria

- Provide facilities and spaces that promotes community togetherness and encourages social interaction
- Enhance the connection between the community and nature
- Provide a range of housing typologies to accommodate the breadth of the community

WELCOMING

MANAAKITAKA

A place that feels safe, hospitable and accessible for all user groups.

Criteria

- Provide reliable and regular public transport options
- Allow visual connections to cultural landscapes to inform building and spatial orientations where possible and design.
- Create desirable spaces that have high levels of climatic comfort and high levels of connectivity
- Ensure public space is adequately lit at night with active edges to provide passive surveillance
- Create a legible public space and street network where movement is intuitive

CHARACTER

MANA MOTUHAKE

A distinctly local experience for residents to call home and visitors to be hosted.

Criteria

- Strengthen sense of identity for locals while balancing the needs of visitors
- Retain and draw upon existing culture and history
- Promote seasonal activation of space that helps to solidify Te Kirikiri/Frankton's character
- Involve residents in the management of their streets and open spaces to provide a sense of ownership
- Enhance the fabric of communities by designing with sensitivity to existing character, scale and use
- Enable a sense of hospitality by ensuring adequate provision is made for visitor accommodation

ENVIRONMENT

WAIRUATAKA

Foster people's connection to land and water where the community lives in harmony with nature.

Criteria

- Create environments which encourage physical activity and prioritises walking and cycling
- Strengthen the sense of identity by maintaining and enhancing important views to sites of cultural and historic significance.
- Minimise the degradation of, and enhance, the environment through low impact water and waste management with a long term aspiration to improve water quality
- Foster people's relationship with water by maintaining an accessible public frontage
- Protect and enhance biodiversity by improving indigenous flora and fauna of value to Kāi Tahu
- Implement new technologies in environmental design and greener building standards

IDENTITY

WHAKAPAPA

The public realm and built form reflect their local context: including culture, history, values and aspirations.

Criteria

- Through design, educate, celebrate and acknowledge the shared cultures and history of Te Kirikiri/Frankton
- Provide opportunities for people to engage with the natural environment and its processes
- Create places that are memorable and identifiable as uniquely Te Kirikiri/Frankton
- Develop and implement a cohesive design language that responds to and enhances local character
- Use streetscape planting to strengthen desired character for connected spaces
- Adopt a sustainable and consistent material palette across Te Kirikiri/Frankton
- Incorporates Kāi Tahu design strategies

INTEGRATED

TŪHONO

A functional and well defined town centre that is connected and complementary to the wider district and has the flexibility to adapt and grow.

Criteria

- Ensure ease of access between centres and fringe communities
- Acknowledge ara tawhito (ancestral pathways) associated with mahika Kāi and the traditional economy of trade by creating well defined and connected centres
- Strengthen the arrival experience to Te Kirikiri/Frankton, considering arrival by water, air and road
- Provide adaptable and flexible design solutions that can evolve over time
- Utilise resilient design principles to safeguard communications, critical services and infrastructure
- Enable independence by providing spaces and transport suitable for different user groups
- Ensure private sector development is coordinated and contributes to the long term vision for Frankton

FEASIBLE

WHAIPAIKA

Masterplan actions and outcomes are well defined, set against realistic time frames and budgets, and are well supported by the community and stakeholders.

Criteria

- Masterplan outcomes should be mutually beneficial for residents and visitors, providing social and economic gains
- Actions are coordinated and appropriately sequenced to maximise outcomes
- Responsibilities and accountability for delivery is clear
- Actions leverage existing investment and do not undermine the long term vision and wider aspirations of the District
- Projected completion dates are realistic, and managed by identifying short, medium and long-term milestones

SUMMARY OF WORKSHOP FINDINGS

TESTING THE DESIGN AND PLANNING PRINCIPLES

The design and planning principles were used as the basis for the first exercise.

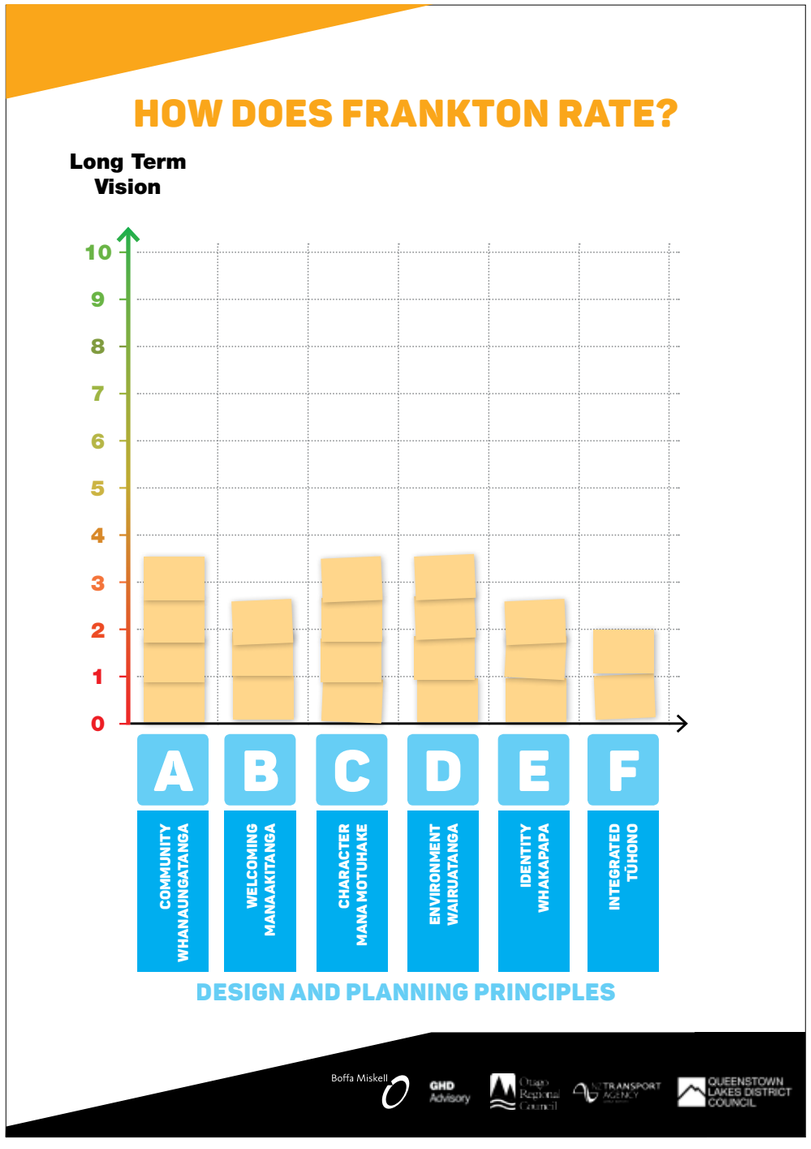
The objective of the exercise was for stakeholders to set a score how well Te Kirikiri/Frankton is currently performing against the criteria and more broadly the long term version.

The exercise also allowed participants the opportunity to familiarise themselves with the principles, while critiquing and providing feedback on any gaps they believe existed.

The stakeholders were broken into small groups to allow discussion and debate, as well as provide the ability to average the scores and identify any trends. Stakeholder groups presented back their scores, highlighting the reasons why the scored as they had.

Themes that emerged from this process included the existence of small, but strong pockets of community, the success of the local Remarkables Market, and the importance of the surrounding landscape. The lack of local character and reference to cultural history was considered an issue and how illegible Te Kirikiri/Frankton is for travellers.

In terms of gaps, stakeholders recommended that awareness and ease of access to businesses and social infrastructure should be emphasised within the principles.



3.5 DEVELOPING THE MASTERPLAN OUTCOMES

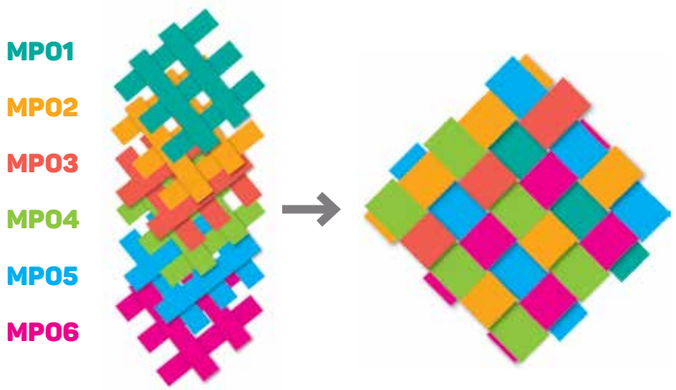
THE MASTERPLAN OUTCOMES

Masterplanning is a complex task of stitching together a range of often competing subject matters, tangible and intangible, into a comprehensive and deliverable plan. Successful Masterplans are formed of multiple interrelated layers, that when coordinated and delivered in sync leverage the overall outcome.

As part of the formulation of the Te Kirikiri/Frankton Masterplan, six Masterplan outcomes have been identified and developed, drawing on the Vision and Design and Planning Principles. These layers are transformational and place based outcomes that have been tested by stakeholders through workshops and have formed part of the public engagement feedback loop. They are underpinned by a set of objectives that respond to the specific opportunities and challenges within the Te Kirikiri/Frankton area, as well as addressing community aspirations. While each of the Masterplan outcomes had its own tailored set of objectives, there are a number of interdependencies that are tied together as part of the spatial framework, which is outlined in the following section. The Masterplan outcomes developed include:

- MP01. Integrating with the water's edge
- MP02. Gateway into the district
- MP03. Enhancing the local network
- MP04. Integrated urban centres
- MP05. Living and growing in harmony with nature
- MP06. Inclusive neighbourhoods

LAYERING THE MASTERPLAN OUTCOMES



MP01 INTEGRATING WITH THE WATER'S EDGE

Objectives:

- Improve access for the community to the water
- Increase opportunities for recreation along the waterfronts
- Preserve and enhance views towards the water
- Utilise the water for transportation
- Capitalise on the amenity of the water edge for active transport
- Create a safe and accessible environment
- Enhance the water quality
- Promote climate smart solutions to improve resilience
- Strengthen the ecological connections from the waterfront into the core of Te Kirikiri/Frankton

MP02 GATEWAY INTO THE DISTRICT

Objectives:

- Strengthen the sense of arrival into Te Kirikiri/Frankton by air, road and water
- Intensify uses and built form around the gateways to Te Kirikiri/Frankton
- Enhance the outward face of Te Kirikiri/Frankton along the state highways
- Create an intuitive and welcoming environment
- Enhance views towards the natural landscape features (water, mountains and hills) to improve legibility
- Reinforce a distinctly world class Te Kirikiri/Frankton character
- Support a transport oriented development by intensifying uses at transport nodes

MP03 ENHANCING THE LOCAL NETWORK

Objectives:

- Implement efficient and direct connections between existing activity areas
- Provide reliable and demand responses services
- Blend modes, provide choice and extend the network reach
- Support inclusive access for all of the community
- Lift the profile of public transport
- Create a public transport system that utilises the setting to enhance the experience
- Use innovation and technology to enhance the user public transport and the movement network
- Apply inclusive and barrier free design principles to create a more welcoming environment to breadth of the community
- Prioritise pedestrians and cyclists in high use activity areas.

MP04 UNIFIED AND INTEGRATED URBAN CENTRES

Objectives:

- Create direct connections between the principal activity areas within Te Kirikiri/Frankton
- Focus on complementary offer to Queenstown Town Centre and other places in the district
- Create a distinction between each centre within Te Kirikiri/Frankton to ensure that they complement and contribute to Te Kirikiri/Frankton as a whole
- Integrate a range of living options that are distinct and responsive to the setting within each of the neighbourhoods and local centres
- Ensure that each of the centres provides a range of accessible social infrastructure and facilities
- Match urban form and intensity of use with transport hubs to create transport oriented development.

MP05 LIVING AND GROWING IN HARMONY WITH NATURE

Objectives:

- Utilise the natural assets for recreation and active transport
- Improve the amenity and environmental attributes of streets and spaces
- Create a distinctive sense of place by drawing upon local, historic and cultural characteristics, especially those of Kāi Tahu.
- Inspire behavioural change to encourage green living and working choices and integrated energy generation infrastructure
- Support community based sustainability initiatives
- Improve the community connection to nature by creating a range of accessible outdoor spaces
- Maximise opportunities to enhance the indigenous flora and fauna of value to Kāi Tahu.

MP06 INCLUSIVE NEIGHBOURHOODS

Objectives:

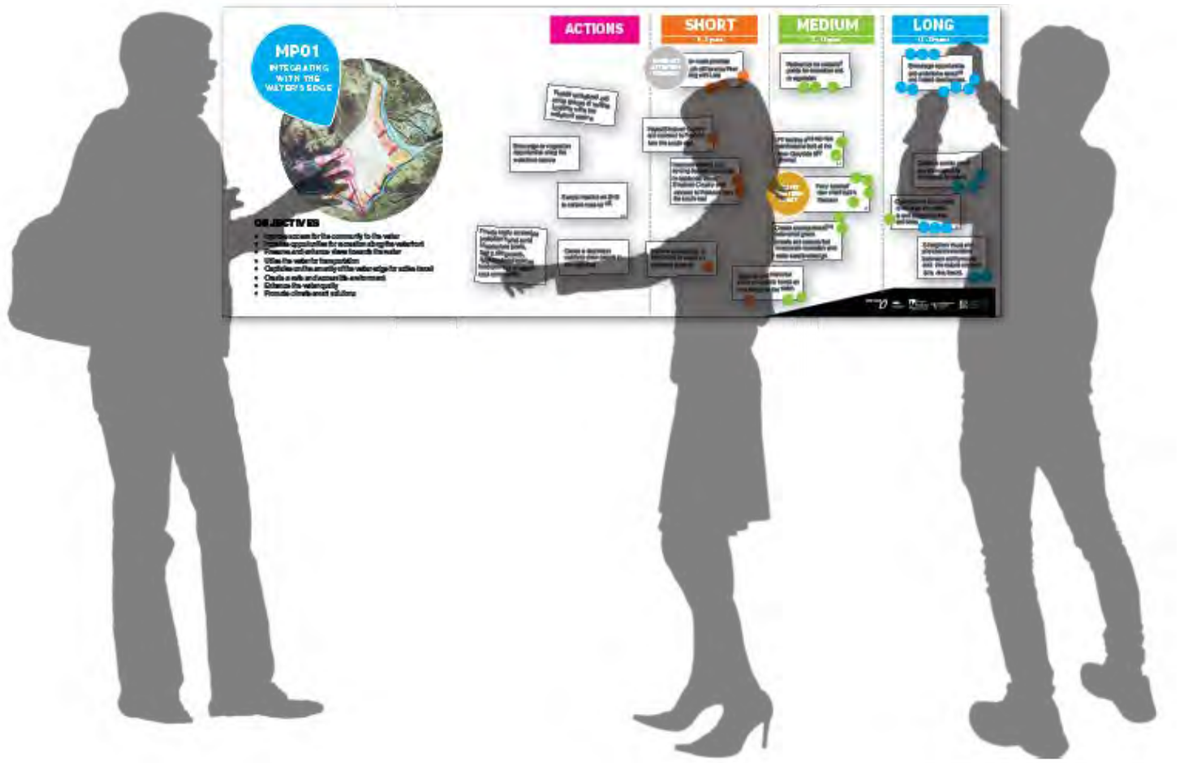
- Increase residential options that cater across the spectrum of the community
- Provide community spaces that create opportunities for social interaction
- Create self-sufficient and adaptable neighbourhoods with accessible local services
- Support aging in place through inclusive neighbourhood planning and housing choice
- Create distinctive neighbourhoods that connect with and are shaped by the environment
- Improve the perception of safety
- Provide environments that promote a healthy lifestyle
- Create independence in the community by providing accessible and safe play and recreation

SUMMARY OF WORKSHOP FINDINGS

Workshop 3: Developing Masterplan Outcome Programmes - The groups were asked to create a programme of approximately 15-20 interventions that would help deliver their Masterplan outcome. The groups were provided with a provision set of actions which were drawn from the previous workshops series and were encouraged to amend or include any of their own actions.

Each group presented their initial long list programme back to the group, who in turn scored how well it delivered the overall Masterplan vision and the Design and Planning Principles that were considered in exercise one.

Common themes highlighted in the overlapping actions, include the need to provide more comprehensive and higher quality routes and spaces for pedestrians and cyclists; the need for improved PT facilities; and environment and experiential enhancements. In addition to this, the desire to promote wellbeing and health was highlighted, this would provide alignment with Council policies, such as its Smokefree Policy.



4. SPATIAL FRAMEWORK

4.1 KEY ACTIONS

The spatial framework is the culmination of all of the engagement, Masterplan development and programme testing. It seeks to set out all the Masterplan features and actions with an emphasis on validating the pattern of land use and structure of the transport network against the agreed Masterplan outcomes.

The spatial framework is set out across three principal layers, the open space network, the movement network and land use pattern. Each of these layers is tied together through the Masterplan precincts and an associated programme of actions which are outlined in the implementation section of this Masterplan. The key features are listed opposite and key actions that underpin this overall spatial framework are:

1. Improving the arrival experiences into Queenstown via the Queenstown Airport, state highway and trail network, including the establishment of a new Frankton Flats-Waka pu Lake Link and poten ally recognising wāhi tūpuna (ancestral landscapes) at the Kimiākau/Shotover and Kawarau River crossings;
2. Upgrading State Highway 6 into a high amenity, 50 km/hr urban arterial, poten ally recognising the ara tawhito (tradi onal trail) along Frankton Ladies Mile Highway and improving intersec ons and crossing points to reduce community severance and enhance safety along ac ve travel routes;
3. Using a range of transport op ons to improve access for people of all ages and abili es. This includes comple on of the wider ac ve travel network and linking several local and district centres together through a high frequency, public transport system opera ng on an orbital loop;
4. Strengthening the rela onship between high capacity public transport corridors and more intensive land use ac vi es and built form, such as redeveloping the northern Glenda Drive industrial area for residen al living;
5. Integra ng the Queenstown Airport terminal and other landside opera ons into the public transport network and surrounding compa ble land uses, including inves ga ng opportuni es for the long-term reloca on of Lakes District Hospital facili es outside the Queenstown Airport noise contours;
6. Enhancing recrea onal and community facili es at Queenstown Event Centre, alongside a new transport interchange and Emergency Precinct (e.g. emergency services, civil defence and Queenstown Airport rescue) on the Frankton Golf Centre site;
7. Providing more urban parks and greener streets, including crea ng more direct visual and physical links to Lake Waka pu and enhanced waterfront parks and reserves with the establishment of ‘Te Kirikiri/Frankton Gardens’ as a long-term, legacy project that incorporates Kāi Tahu references.
8. Redeveloping Kimiākau/Shotover Delta into the Kimiākau Zero Waste Community Eco Park, district-wide reserve for informal recrea onal ac vi es, kā rauemi (resource harves ng areas) and poten ally a relocated Frankton Golf Centre;
9. Shi ing current rural infrastructure towards the edge of Te Kirikiri/Frankton to improve amenity and reduce constraints (e.g. bu ers from highways and transmission line corridors) and be r accommodate future urban development;
10. Expressing Kāi Tahu values and narra ves of Te Kirikiri/Frankton; and
11. Recognising cultural heritage from the perspec ve of Chinese, mining and pastoral farming, including crea on of the Arranmore/ McBride Farm Heritage area.

KEY

- Masterplan area

MOVEMENT NETWORKS

- Public transport route/stops (separated lanes or priority)
- Orbital bus route/stops
- Gondola lines/base station (private)
- Ferry route/stops
- Street network
- Active travel network (walking and cycling)
- New road corridor
- Freight route
- Bridge crossing (Active travel and/or public transport)
- 400m (5min) walking distance
- PR Park and Ride
- CS Site of Cultural Significance
- * Potential gateway feature

Note: Dashed routes subject to further investigation

CONSTRAINTS

- Queenstown Airport noise contours (existing)

LAND USE

- Higher density residential
- Medium density residential
- Lower density residential
- Mixed use (includes residential)
- Small to medium format retail
- Large format retail
- Commercial (excludes residential)
- Light industrial and utilities
- Community facilities (buildings)
- Queenstown Airport Corporation (subject to separate process)
- Active open space
- QEC Recreation Masterplan area (subject to separate process)
- Passive open space
- P Urban park (location and size subject to levels of service)
- Native revegetation
- Tussockland/wetland

Note: Land use mix assumes removal of crosswind runway

22 KEY FEATURES

01 Frankton Campground redevelopment
02 Emergency precinct
03 Events centre extension
04 Public transport interchange (estimated location)
05 Community hub
06 Arranmore/McBride Farm heritage area
07 Wastewater treatment plant expansion
08 Relocation of power infrastructure
09 Kimiākau Zero Waste Community Eco Park
10 Wastewater ground filtration
11 Constructed wetland areas
12 Proposed golf course
13 Commercial recreation (excludes noise sensitive activities)
14 Conference and arts centre
15 Quayside waterfront and jetty
16 Te Kirikiri/Frankton Gardens
17 Regional coach hub
18 Humphrey St extension
19 Lakes District Hospital (long-term relocation)
20 Lake link bridge
21 Public transport and QAC traffic only
22 Potential future public transport route

QUAIL RISE
QUAIL RISE SOUTH
LAKE JOHNSON
FRANKTON-LADIES MILE HWY
QUEENSTOWN COUNTRY CLUB
Potential relocation of Power infrastructure – site yet to be investigated
SHOTOVER COUNTRY
FIVE MILE URBAN CORRIDOR
HAWTHORNE DR
GRANT RD
GLENDA DR
KIMIĀKAU/ SHOTOVER DELTA
KIMIĀKAU/SHOTOVER RIVER
PUAHURU
FRANKTON VILLAGE
QUEENSTOWN EVENTS CENTRE
QUEENSTOWN AIRPORT
FRANKTON MARINA
KAWARAU RIVER
WAKATIPU HIGH SCHOOL
REMARKABLES PARK
FRANKTON ARM LAKE WAKATIPU
ŌTEROTU
KINGSTON RD
6A
6
PR
CS

0 600m
1:20,000 @ A3

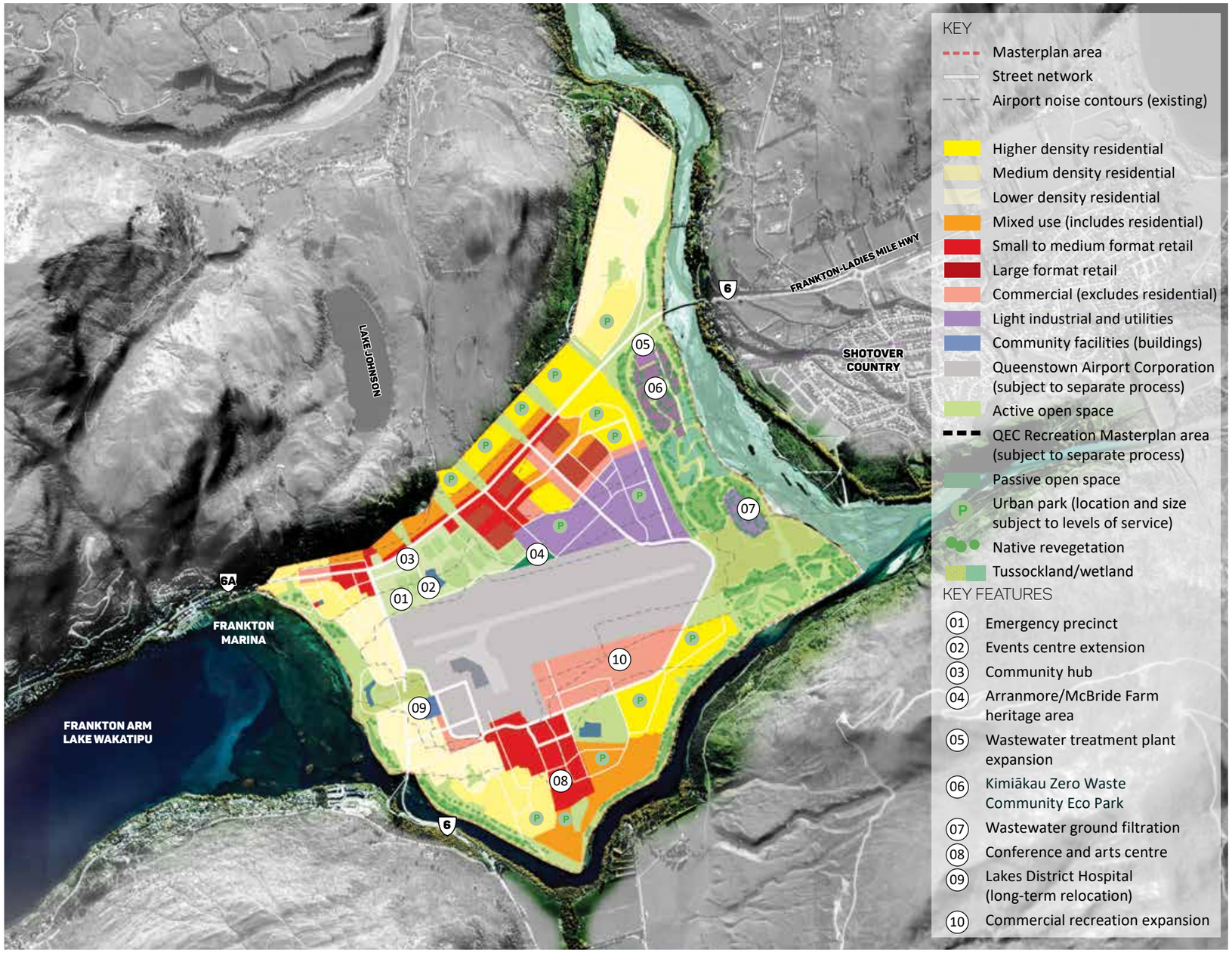
4.2 LAND USE

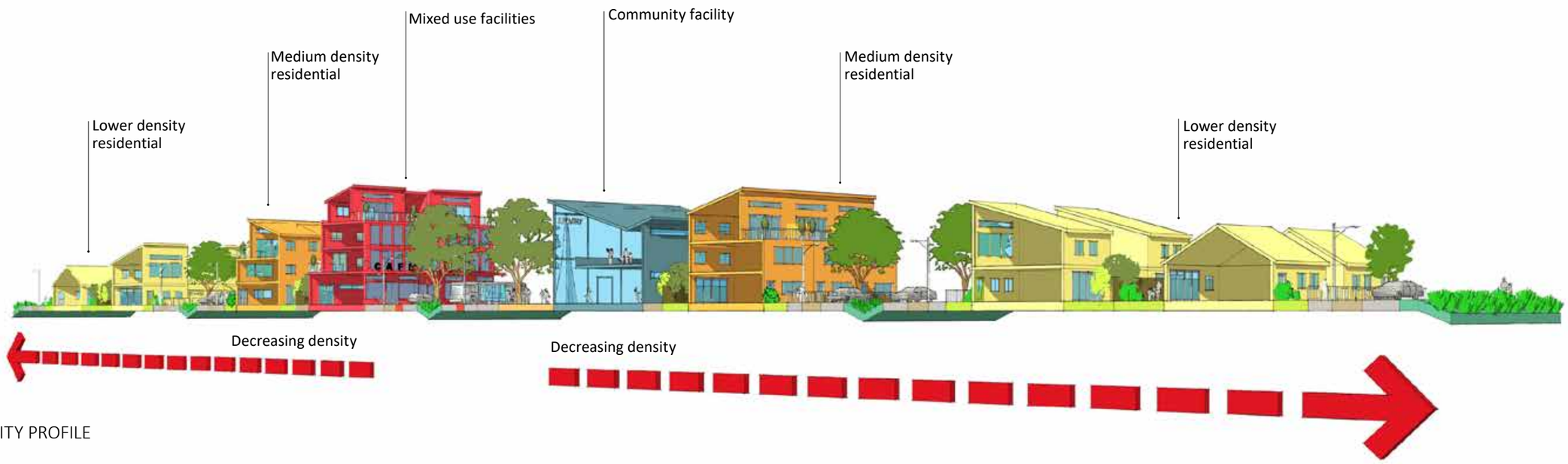
The land use plan illustrates the spatial arrangement of activities, such as commercial centres, industrial areas, residential / visitor accommodation at varying densities and open space (refer next section). The presence of Queenstown's Airport is a specific land use that has both extensive and complex airside and landside activities to consider.

Land use patterns have been evolving over time and will continue to do so. The proposed interventions should not be read in isolation and are very much interrelated with existing areas of development and the movement network, both within and outside the Masterplan area. As per the Masterplan outcome, one of the overarching drivers behind the land use layer is the desire to create unified and integrated urban centres and inclusive neighbourhoods. The focus for the proposed land use pattern is to ensure that there is a clear hierarchy established, development opportunities are optimised and that these can be supported by an enhanced transport network. Other critical considerations include ensuring that development is responsive to the various constraints and sympathetic to the natural setting and character of Te Kirikiri/Frankton.

The Masterplan has achieved this through:

- Aligning urban centres and increasing density with public transport hubs to provide higher levels of accessibility to the highest number of users.
- Encouraging a greater mix of complementary land uses that minimise transport needs and create urban vitality.
- Allocating areas for residential intensification on greenfield or brownfield / infill redevelopment land that will facilitate housing choice, affordability and achieve a critical mass of residential population to support other activities.
- Providing for social infrastructure and community facilities to support residential growth across the Wakatipu Basin.
- Consolidating complementary activities to make more efficient use of the land and leverage off common services and needs, such as emergency services, community / recreation activities and infrastructure.
- Relocating larger, less intensive activities, such as Frankton Golf Centre, industrial uses and infrastructure, to the fringes of the Masterplan area to allow for repurposing to other more appropriate land uses.





DENSITY PROFILE

MIXED USE DEVELOPMENT

The Spatial Framework illustrates the mix of ground level activities across the Masterplan area, as this is typically where most people using the streets and public spaces interface with various land uses. The land use colours provide a recognisable 'heat map' of the likely intensity of activities of each type; warmer colours are of higher intensity with lower intensity at the cooler end of the range.

Masterplanning is trending away from segregated land uses, such as retail malls and business parks, given the diverse needs of the community and the strain it puts on transport networks to access these needs when they are more isolated from each other. A greater mix of uses tends to be within or closer to urban centres, as there are smaller overall space needs for some activities with greater opportunities for a 'vertical mix', such as retail and community facilities. This can be contrasted with those land uses with larger space requirements, such as suburban residential and formal recreational areas, where a 'horizontal mix' is commonplace.

In mixing uses, it is important that they are compatible with each other in relation to user needs, accessibility requirements and that reverse sensitivities, such as noise, can be well- managed. Industrial activities are often more segregated with transitional uses between them to help mitigate potential adverse effects, such as noise, traffic and visual.

The finest mix of uses is anticipated to occur in urban centres, associated with and supporting retail activities (refer small to medium format retail and commercial descriptions). Masterplan areas identified as 'mixed use' are where there are opportunities for a compatible combination or range of medium-sized activity types, in both horizontal and vertical mixes. This recognises that there may not be enough demand for some activities, such as small format retail, to provide the level of continuity needed at ground level to support comparison shopping and urban vitality of a place. These medium sized activities are generally located on the fringe of urban centres and play an important support role for them. The presence of Queenstown Airport and sensitivity of some activities to noise, such as residential, means that some mixed use areas do specifically exclude certain land uses. The Masterplan approach, includes:

- Diversifying the population to increase the vitality and interest of a place
- Balancing out peak demand and usership on public transport and supports active travel modes over private car use
- Activates ground and upper levels, enabling greater passive surveillance to support safer communities
- Lowers overall infrastructure cost, as vertical mixed used built form generally enables more compact footprints

HIGHER DENSITY RESIDENTIAL

These generally comprise apartment typologies that are part of a complementary mix of activities and / or comprehensively developed urban blocks. They are an emerging typology within the Masterplan area, such as Remarkables Park, and generally accommodate smaller household sizes. As such, they can provide more affordable or independent living options. Situated in areas of high accessibility, public amenity and close to retail, hospitality and community facilities, they offer a more vital, urban living experience. The Masterplan approach, includes:

- Providing a critical mass of a resident population to support retail and hospitality activities and to benefit from the enhanced recreational and community facilities on offer, particularly around the QEC.
- Higher residential densities support higher capacity transport networks and efficient provision of active travel infrastructure.
- Increasing opportunity for social interaction and sustainability initiatives using communal areas.
- Supporting activities suited to upper levels, which encourages the provision of vertical built infrastructure for more efficient land use.
- Creating more urban environments with defined edges and better enclosure of streets and spaces that also support passive surveillance for public safety.

MEDIUM DENSITY RESIDENTIAL

These generally comprise terraced house or low-rise apartment typologies that are part of a complementary mix of larger activities and / or comprehensively developed urban blocks. They are an already emerging intermediate typology between urban centres and outer zones within the Masterplan area, such as Queenstown Central. These typologies can also more easily transportation existing lower density residential areas through infill. The Masterplan approach, includes:

- Providing a transitional residential density served by balance of local public transport, active travel and private vehicles modes.
- Accommodating larger family households in an efficient and affordable way, while still enabling residents to have access to private rear yard space.
- Creating more of a neighbourhood feel with a lesser mix of uses other than convenience retail.

LOWER DENSITY RESIDENTIAL

Several of the more established residential parts of the Masterplan area are lower density residential. These are largely detached or semi-detached houses on generous lots with some of those in Quail Rise being even larger rural residential typologies. Opportunities to infill or intensify those along Frankton Beach and some early stages of the Remarkables Park subdivision are limited by Queenstown Airport noise constraints and will unlikely be redeveloped to any great degree. While the Masterplan area is becoming more urban, these typologies help retain larger family housing and housing choice in general. The Masterplan approach, includes:

- Retaining some choice for larger family households in less accessible or develop-able locations.
- Maintains some neighbourhood resilience by enabling the use of private gardens for food self-sufficiency.
- Recognising that some existing areas have evolved a distinct character and neighbourhood feel within a more confined landscape context.

COMMUNITY FACILITIES

Community facilities are an integral part of a thriving and connected town and provide the ‘soft infrastructure’ within the Masterplan area. They should be in highly visible and accessible locations and act as focal points for the community. Some will act as ‘community anchors’ that can generate higher numbers of users to support other activities, such as the Queenstown Event Centre and Wakatipu High School. The Masterplan approach, includes:

- Increase liveability by providing space for a range of social and recreational activities and like-minded groups to gather.
- Providing social connection across a range of ages and ethnicities.
- Providing a place for sharing knowledge and skills
- Promoting a sense of pride and ownership within the community, enabling the community to galvanize and shape initiatives collectively.

SMALL-MEDIUM FORMAT RETAIL

These finer grain, ground level activities have an important place in Te Kirikiri/Frankton's make up, collectively helping to create a diverse and vibrant heart to its urban centres, such as Frankton Village, Five Mile Corridor and Remarkables Park. For longer term success, they could be assisted by a centre-wide management approach that helps coordinate opening times, marketing and placemaking initiatives. This retail format could also be provided for in smaller, more localised clusters for neighbourhood convenience. It is anticipated that for other activities, such as commercial offices and residential could be stacked vertically above retail (refer to other descriptions). The benefits include

- Supporting a pleasant, pedestrian friendly urban environment.
- Attracting a wide range of businesses that create distinct character areas.
- Enabling new local or niche retail and hospitality business to start-up to grow.

LARGER FORMAT RETAIL

An existing part of the Te Kirikiri/Frankton retail environment, this format of store is typically car dependant and ideally located on the fringe of urban centres. They can be accommodated in a manner whereby they create anchors at either end of an urban centre to help generate higher numbers of users and foot traffic between them to support smaller retail formats. They can be successfully integrated with these smaller formats to maintain an interesting urban environment. The Masterplan approach, includes:

- Ensure that urban corridors and centres are not characterised by larger format retail which tend to be visually dominant and do not positively contribute to the character of Te Kirikiri/Frankton.
- Locating larger format retail so vehicle-based movement can more readily access the road network while minimising their impact on active travel and pedestrian-orientated environments.
- Sleeving larger format retail and associated car parking from the higher quality public realm, by using smaller format retail and/or mixed use development.
- Providing a transition between larger format retail and finer grain urban areas.
- Potential to adapt these activities over time, as retail trends and land values change, to allow for future intensification / infill opportunities.

Image credit: Samuel Zeller on Unsplash

COMMERCIAL

Office-based commercial activities are typically of a higher employee density. Larger format commercial is increasingly being balanced-out by small to medium sized professional services who are meeting the needs of the growing local community and helping to create a more self-sustaining economy. The trend towards increasing local employment opportunities within the Masterplan area is a positive contributor to reducing the commuting, particularly when matched with residential intensification. The Masterplan approach, includes:

- Providing a critical mass of population that can support retail and hospitality activities and to benefit from the enhanced recreational and community facilities on offer, particularly around the QEC.
- Provides opportunities for people to live and work within the same area, reducing commuting times, increasing productivity and helping to achieve a better work/life balance.
- Higher employment densities support higher capacity transport networks and efficient provision of active travel infrastructure, thereby improving accessibility.
- Supporting activities suited to above ground accommodation, which encourages more efficient and intensive use of land use.
- Potentially used to screen or wrap larger format uses to create higher quality surrounding streets.

INDUSTRIAL

Industrial uses play an important role in economic development of the District. The nature of the activities within industrial areas can be quite broad, however more often are a reflection of the wider needs, functions and services within the District. Within the Masterplan area, the industrial uses are typically light industrial, low intensity, with a mixture of suppliers, storage and manufacturing. The is a desire to move away from mono cultural areas of activities to more mixed use environments. The vision is for Frankton to be more self sufficient urban area that provides a range of uses with an integrated transport network. As such the Masterplan approach includes:

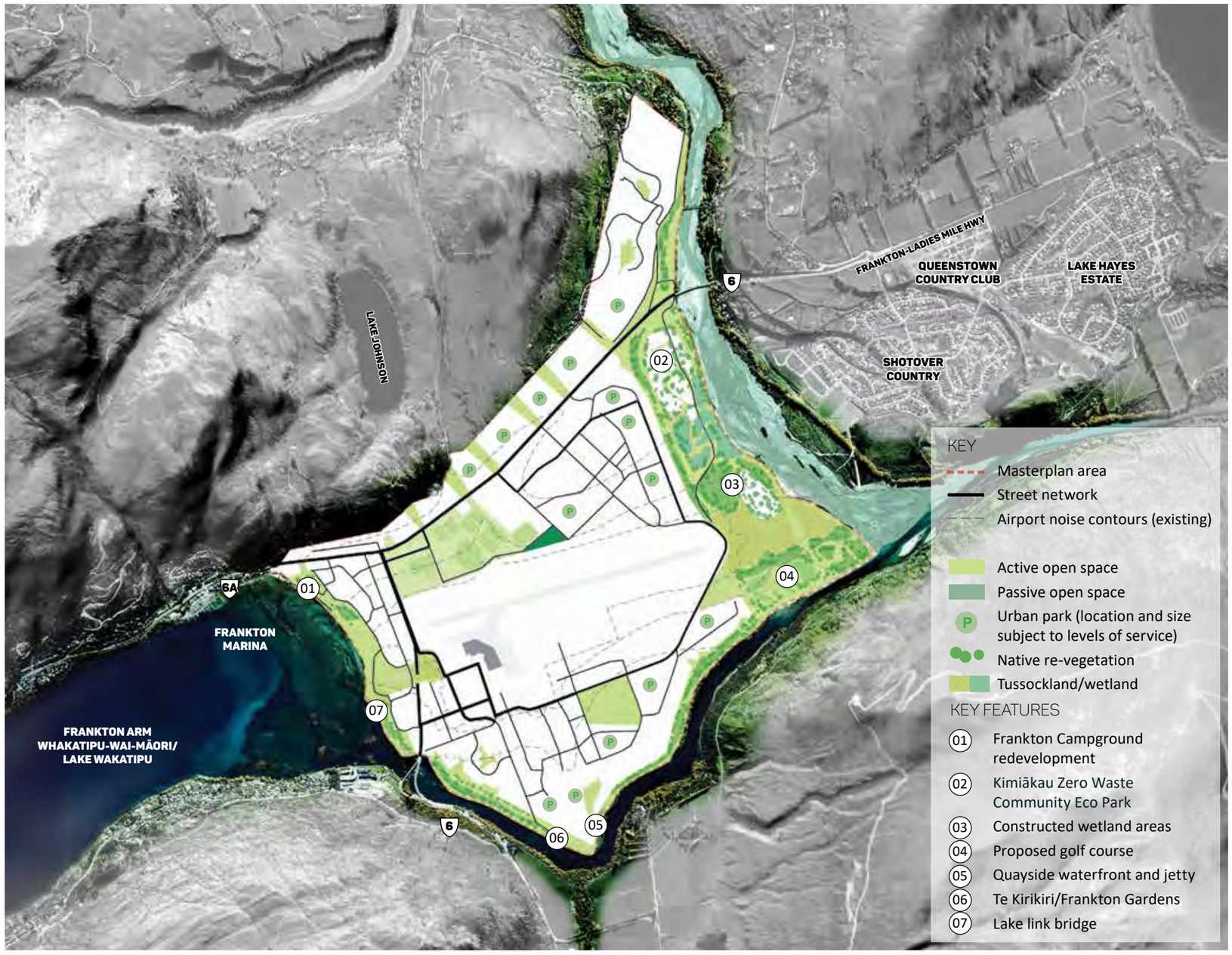
- Rezoning of some industrial land to enable a broader mix of uses, particularly residential where appropriate.
- Signalling the need to identify land outside the Masterplan area for the industrial uses.
- Consolidating industrial and employment uses to make more efficient use of develop-able land.
- Identification of a freight route providing safe and efficient access to the State Highway for industrial activities and limiting the impacts on surrounding activities.
- Increasing the amenity of the urban environment through public realm improvements and introduction of activities that result in more human scale form.

4.3 OPEN SPACE NETWORK

The open space network, comprising both land (green) and water (blue) resources, is an essential part of the public realm that helps bind together and support the other land use activities. It is a fundamental component of the long term vision. The community and stakeholders have stated aspirations to focus on creating a sustainable future, with a town that has a stronger connection and more respectful relationship to the natural environment and opportunities for expression of Kāi Tahu values. The enhancement of the natural setting through improvements to the open space network is also critical to ensuring that Te Kirikiri/Frankton retains and develops an authentic character that draws on it's connection to the land and its unique location in the Wakatipu Basin. With the desire and need to intensify the residential population to achieve broader sustainability goals, the appropriate provision of high quality and accessible public open space amenity will also be an important foundation of creating a liveable area.

The Masterplan has responded by providing green space that is accessible, well connected and builds on their existing relationships with the lake, rivers and other natural characteristics of Te Kirikiri/Frankton, this includes:

- Providing for larger scale recreational opportunities in both structured settings, such as QEC, and informal recreation opportunities, such as the Kimiākau/Shotover Delta park.
- Pocket parks that provide visual amenity, informal facilities for passive / active recreation and maintain a feeling of openness in areas of increased density.
- Revegetation along the waterfront restores natural ecosystems and enhances connections to Outstanding Natural Features and Landscapes
- Constructed wetlands exhibit care for the environment and provide for Kāi Tahu cultural values.
- An active travel network, that includes off road recreational trail facilities that enhances liveability, health outcomes, and connections to nature and the wider landscape.
- Road typologies facilitates liveability through a connection to nature.
- Encouraging the incorporation of key wellbeing and health policies and initiatives into public spaces design and management, such as Smoke Free areas



The proposed establishment of a Lake Link (view west from near the Queenstown Airport terminal) across State Highway 6 / Kawarau Road creates a strong pedestrian and cycle priority route, reducing the severance between Frankton Flats (e.g. Queenstown Airport, Remarkables Park Town Centre and Wakatipu High School) with the Frankton Arm (e.g. Ferry services, Remarkables Primary School and Frankton Beach) for the surrounding community. The Link will also create a higher amenity community and visitor focal point. It will also improve the arrival experiences into Queenstown via the Queenstown Airport, state highway, water services and trail network. Its design could recognise wāhi tūpuna (ancestral landscapes) and ara tawhito (traditional trails).

WETLANDS

Constructed wetland areas within the Kimiākau/ Shotover Delta are used to repurpose the oxidation ponds and rehabilitate braided river edges. The repurposing of the ponds could utilise the existing catchment areas and clean fill available within the Delta to provide informal recreation facilities, ecological enhancement and potentially kā rauemi through close engagement with Kāi Tahu. This would contribute positively to social, cultural and environmental outcomes and present a unique opportunity to enhance the natural character and biodiversity of the area that:

- Provides ecological value by increasing biodiversity.
- Is culturally significant as an expression of Kāi Tahu values.
- Showcases care for the natural environment and opportunities for citizen science.
- Provides accessible connection to nature.
- Supports distinct landscape character through close association with the braided river systems.

NATIVE REVEGETATION

Revegetation and associated naturalisation of the esplanade reserves along the Frankton Arm, Kawarau and Kimiākau/Shotover River edges, in combination with Willow, wilding pine and other weed / pest management, provides ecological and cultural benefits and connections with nature that:

- Enhances sense of place by removing weed species and reinstating a native plant palette.
- Improves interaction with the waterfront by combining revegetation efforts alongside active travel networks.
- Maximises opportunity to improve biodiversity and ecosystem services.
- May help to improve water quality by slowing runoff and stabilising steeper terrace slopes.
- Provides opportunities for expression of Kāi Tahu values and wāhi tūpuna (ancestral landscapes) through indigenous planting.

FRANKTON BEACH & FORESHORE

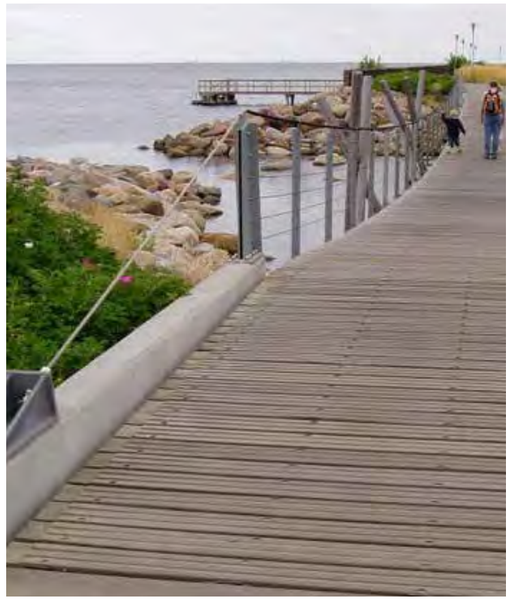
Improvements to the Frankton Beach and foreshore could strengthen its role as a community focal point and destination. Clear visual connections and direct approaches down the terrace banks from more intensive activities (e.g. Queenstown Event Centre and Frankton Village) would support this. Investment should be focused on increasing the amenity and integrating recreational and active travel facilities, while retaining the overall relaxed character that:

- Provides public open space along the frontage facilitates connection with the water.
- Provides increased amenity in the form of picnic areas and open space for play encourages public use and ownership.
- Provides opportunities to host a broader range of water-based recreational activities, such as kayak and paddle-boards.
- Increased legibility through wayfinding and use of Frankton Beach as a landmark further encourages use of the space, and connects it to the wider area.

TE KIRIKIRI/FRANKTON GARDENS

Situated in a prominent waterfront location, Te Kirikiri/ Frankton Gardens provide an opportunity to showcase the exotic and native flora associated with the Southern Lakes and provides a destination for locals and visitors that:

- Retains established exotic trees and vegetation from the existing Zoological Gardens.
- Enhances the native flora and fauna of the area.
- Contributes to a distinct Te Kirikiri/Frankton character and sense of place.
- Provides a destination and inclusive activity that benefits a range of ages.
- Improves connection to nature and has flow on environmental benefit.
- Provides opportunities for expression of Kāi Tahu values and wāhi tūpuna (ancestral landscapes) through indigenous planting.



LAKE LINK

The Lake Link provides a vital physical and visual connection between the Lake Wakatipu and the Te Kirikiri/Frankton urban area for the community and visitors. It provides an uplift in amenity for an area that is currently poorly provided for and:

- Reduces severance across State Highway 6, increasing connectivity for community and visitors.
- Maintains continuity and safety of the active travel network by bridging a significant traffic thoroughfare.
- Enables views toward the water, creating a visual link with the wider landscape.
- Improves legibility and wayfinding by providing a memorable landmark feature.
- Capitalises on its landscape setting to enhance user experience, strengthening character and sense of place.
- Potentially recognises wāhi tūpuna (ancestral landscape) and ara tawhito (traditional trails).

URBAN PARKS AND OPEN SPACE

Urban parks are an important neighbourhood amenity, strengthening the green network and providing relief and space for recreation and social interaction in the more urban settings that are likely to emerge in Te Kirikiri/Frankton that:

- Provides public community space that facilitates social connection and interaction.
- Fosters a sense of ownership within the community by providing small scale, local and accessible spaces.
- Contributes to a cohesive local character through materiality and planting choice.
- Improves community connection to nature and provides respite from dense housing typologies/ options.
- Uses the opportunity to enhance native flora and fauna habitats.
- Fosters independence in the community by providing accessible areas for safe play and recreation.
- Promoting healthy and wellbeing initiatives within public spaces (e.g. Smoke-Free Policy).

Image credit: Mount Maunganui Beachside Holiday Park

FRANKTON CAMPGROUND

The redevelopment of the Frankton Campground area provides opportunities to better integrate this semi-private activity into the wider green and blue open space network that:

- Provides an affordable accommodation option in a desirable location, enhancing the diversity and catering for peak visitor numbers to the area.
- Provides an opportunity to reinforce the open space character by continuing the greener terraced slopes of Frankton Domain further around the lake front.
- Allows for a better water sensitive design approach for campervan standing areas adjacent to Lake Wakatipu.
- Reconfigures the active travel network to provide a more direct and convenient route, linking from the Frankton Flats to Frankton Arm Track.
- Enhances the visual and physical connections between Frankton Road and Lake Wakatipu.

KIMIĀKAU/SHOTOVER DELTA

The proposed consolidation and clustering of infrastructure and gravel extraction activities towards the northern end of the Delta, closer to SH6 access points, allows for the broad repurposing of the area adjacent to Kimiākau/Shotover River. This could create a significant new District Park within the Masterplan area that provides space for informal recreation and visual relief to support the intensification of Frankton Flats and other growth within the Wakatipu Basin, including:

- Enhancement of the natural gateway from the north and by air.
- Recognition of wāhi tūpuna (ancestral landscape), particularly Puahuru at the Kimiākau / Kawarau confluence.
- Provision of active travel routes as part of the broader network of trails.
- Opportunity to integrate recreational space within the proposed Kimiākau Zero Waste Community Eco Park.
- Revegetation and increased biodiversity.
- Potential to accommodate the relocation of the Frankton Golf Centre.

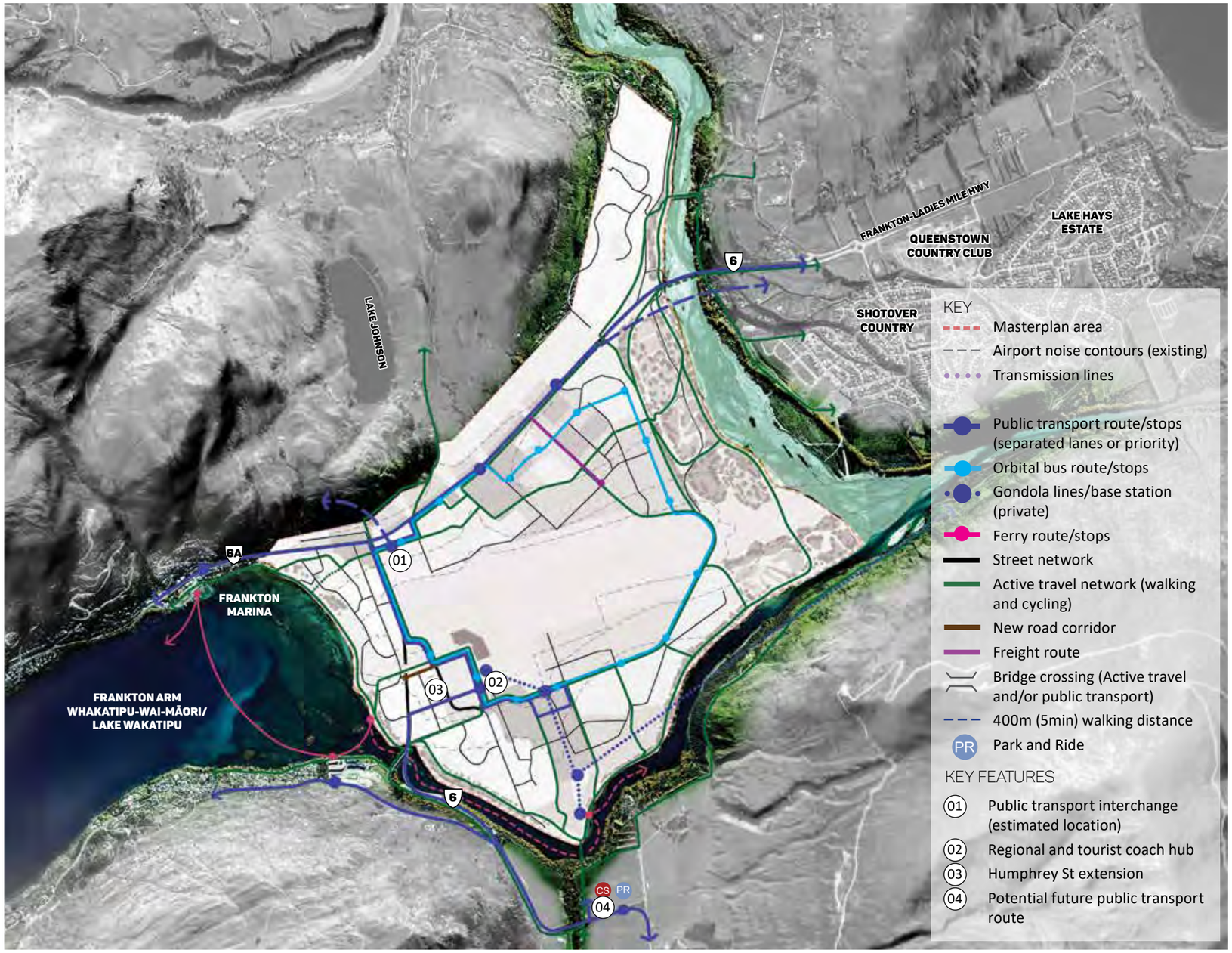
4.4 MOVEMENT NETWORK

The movement network encompasses the primary and secondary streets, public transport system and the active travel routes. The ultimate aim is to achieve multi-modal accessibility throughout the Masterplan area to support land use activities.

While proposed changes to the various components of the network are likely to result in some improvements, without considering them in conjunction with the broader pattern of land use, the impacts are likely to be limited or short lived. Stakeholders expressed concern that the current network was not working, with congestion, travel times and overall reliability as immediate issues. They wanted an efficient, well connected public transport system that could accommodate and provide for a growing population of locals and visitors. The interventions have been formulated in tandem with the development of the land use component of the spatial framework and therefore should be read in conjunction.

The Masterplan provides for a multi-modal transport network, focused on minimising private car use and enhancing provision of public transport, active travel and freight modes, that support changes in travel behaviour for multiple user groups and is responsive to the changing land use patterns and intensities. The Masterplan approach, includes:

- Enhancing the arrival experience at the air, road and water gateways, by making the most of the natural environment, including and maintaining key mountain and water views and utilising the water as a means of transport.
- Providing greater choice between private, public and active travel modes.
- Making public transport and active travel easy and efficient options.
- Facilitating independence for youth and elderly residents by providing a safe public transport and active travel network.
- Creating direct connections between principal activity areas in Te Kirikiri/Frankton, enabling the integration of urban centres and key destinations, such as QEC, Wakatipu High School and Queenstown Airport.
- Establishing direct connections to open space and water edges, such as the Lake Link bridge.
- An active travel network that includes off road recreational trail facilities that enhance liveability, health outcomes, wāhi tūpuna (ancestral landscapes), and connections to nature and the wider landscape.



Five Mile urban corridor (view west along State Highway 6 near Grants Road intersection towards the Queenstown Event Centre) upgrade the Frankton-Ladies Mile Highway, between the Shotover Bridge and Frankton Village, to create a high amenity, 50 km/hr urban arterial, potentially recognising the ara tawhito (traditional trail) along this route. This will be integrated with Masterplanned improvements to QEC, including maintaining views across Frankton Flats to the wider natural landscapes.

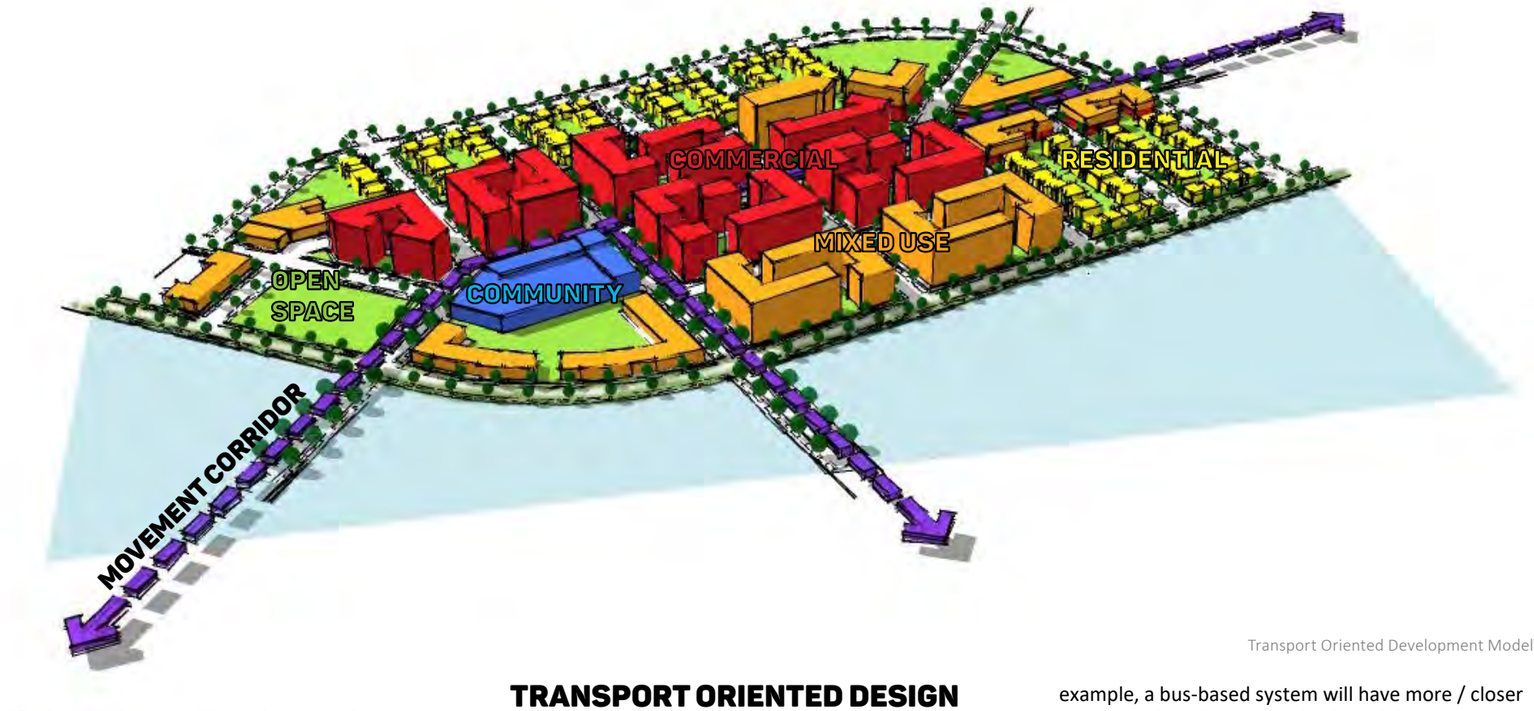
PROPOSED FRANKTON INTEGRATED TRANSPORT PROGRAMME

The ITPBC has been developed in conjunction with the Masterplan and seeks to support its outcomes while also achieving a range of transport related objectives. The proposed transport programme's objectives for Te Kirikiri/Frankton include:

- Making it easier for residents and visitors to choose to walk or cycle rather than use a car;
- Improving safety outcomes by reducing the risk of accidents and the harm they cause;
- Addressing the perception of safety that limits people from walking and cycling within the area;
- Reducing severance caused by existing transport infrastructure include state highways and the Queenstown Airport;
- Reducing peak hour congestion and bottlenecks; and
- Improving the coverage, quality and frequency of public transport services.

To achieve the above objectives, a wide range of interventions are proposed to be further investigated and implemented with the development of the Masterplan over the next 30 years. The key transport interventions are:

- The development of a high quality, separated, connected and safe active travel network across Te Kirikiri/Frankton and the Wakatipu Basin;
- Various options for safe pedestrian and cycling crossings of roads, primarily for SH6, including investigation of overbridges, underpasses and at grade crossings;
- A new river crossing for active travel to connect trails, paths and local routes with the wider Queenstown Trails network.
- Improvements to public transport services in the short, medium and longer term that will involve prioritisation within the transport network to reduce travel times and increase reliability.
- High-capacity public transport options are currently being investigated and include, but are not limited to, trackless trams, double decker buses and gondolas to improve access within Te Kirikiri/Frankton, to Queenstown and across the Wakatipu Basin .



Transport Oriented Development Model

- An Orbital public transport service operating around the Queenstown Airport and connecting key destinations such as Queenstown Event Centre, Five Mile, Queenstown Central, Remarkables Park, Wakatipu High School and Queenstown Airport;
- River crossings for public transport will be investigated in the future and will be implemented if there is sufficient demand and need for this infrastructure to allow public transport services to be separated from other traffic.
- Provision of a freight route to enable safe and efficient access for large service vehicles between the main arterial and the industrial areas.; and
- A public transport, regional and tourist coach hub is proposed within the vicinity of the Queenstown Airport to service locals through public transport transfers as well as visitors and tourist operators.

Detailed information relating to the proposed transport infrastructure and services for Te Kirikiri/Frankton will be available through the Frankton Integrated Transport Programme Business Case. There are also several specific business cases being progressed for active travel, public transport and improvements on SH6 and SH6A.

TRANSPORT ORIENTED DESIGN

A key aspect of the Masterplan is to improve the urban form of Te Kirikiri/Frankton. The primary aim is to provide a closer relationship between land use and transport services to progressively match more intensive activities with greater levels of accessibility, including higher capacity public transport services, around urban nodes or corridors. An increasing intensification should also be complemented by a greater mix of activities and a smaller urban block structure and finer-grain lot layouts. This is often combined with taller building typologies that can enhance the visually legibility of the built form, which helps make it easier to recognise, orientate to and navigate around the Masterplan area. This approach increases the use of public transport and reduces the average length of travel for people to access shops, jobs, community / recreational facilities and other amenities. The form of the transport oriented developments will depend on the public transport solution used to support the growth in transport demand in the long term. For example, a bus-based system will have more / closer stops and therefore a corridor-based development, whereas a higher capacity and/or more rapid transport solution may have fewer / distant stops and thus a more nodal-based development. The chosen approach needs to be identified early to support the proposed adjacent land uses and to reflect the current and future function of the transport network that is increasingly within an urban environment.

Image credit: Local Motors' Olli Shuttle. https://www.theinformation.com/articles/the-great-self-driving-shuttle-race

Image credit: CRRC Trackless Tram. https://www.newcastleherald.com.au/story/5685359/state-government-says-its-too-early-to-roll-out-trackless-trams/

Image credit: Christchurch Bus Interchange, Christchurch - Architectus

ORBITAL SHUTTLE

To assist in achieving the Masterplan outcomes and to improve the connectivity within Te Kirikiri/Frankton, it is proposed that an orbital shuttle be introduced, initially using buses during the off-peak periods and then developing into a dedicated service as Frankton develops and intensifies. The orbital shuttle will supplement the public transport and commuter services provided by the Otago Regional Council and enable movement within the Masterplan area between urban centres and key destinations, such as Queenstown Event Centre, Five Mile, Remarkables Park, Wakatipu High School and Queenstown Airport. The proposed route is indicative and may adapt over time to capture emerging intensification and locations of any new destinations that occur over the coming years.

HIGH CAPACITY PUBLIC TRANSPORT

A high capacity public transport network and services will be required to support the growing and intensifying population and visitors to the area. Due to the geographically constrained environment with mountain ranges, rivers and the lake there is limited ability to expand the transport network for personal mobility, in particular widening roads and building bridges for car-based travel. Yet, this has the benefit of concentrating potential users along urban corridors that can be well-serviced by high capacity public transport, particularly around key nodes. Currently there are high levels of car dependency with low uptake of public transport, walking and cycling (active travel modes). Movement demand within Te Kirikiri/Frankton and the Wakatipu Basin is more evenly spread across the day than in major cities, which provides an opportunity to provide an effective and economically viable public transport system that is frequent, reliable and with good coverage of residential areas and key destinations. Due to the natural assets of the area, a diversified approach to high capacity public transport could be provided using both land and water-based services.

PUBLIC TRANSPORT INTERCHANGE

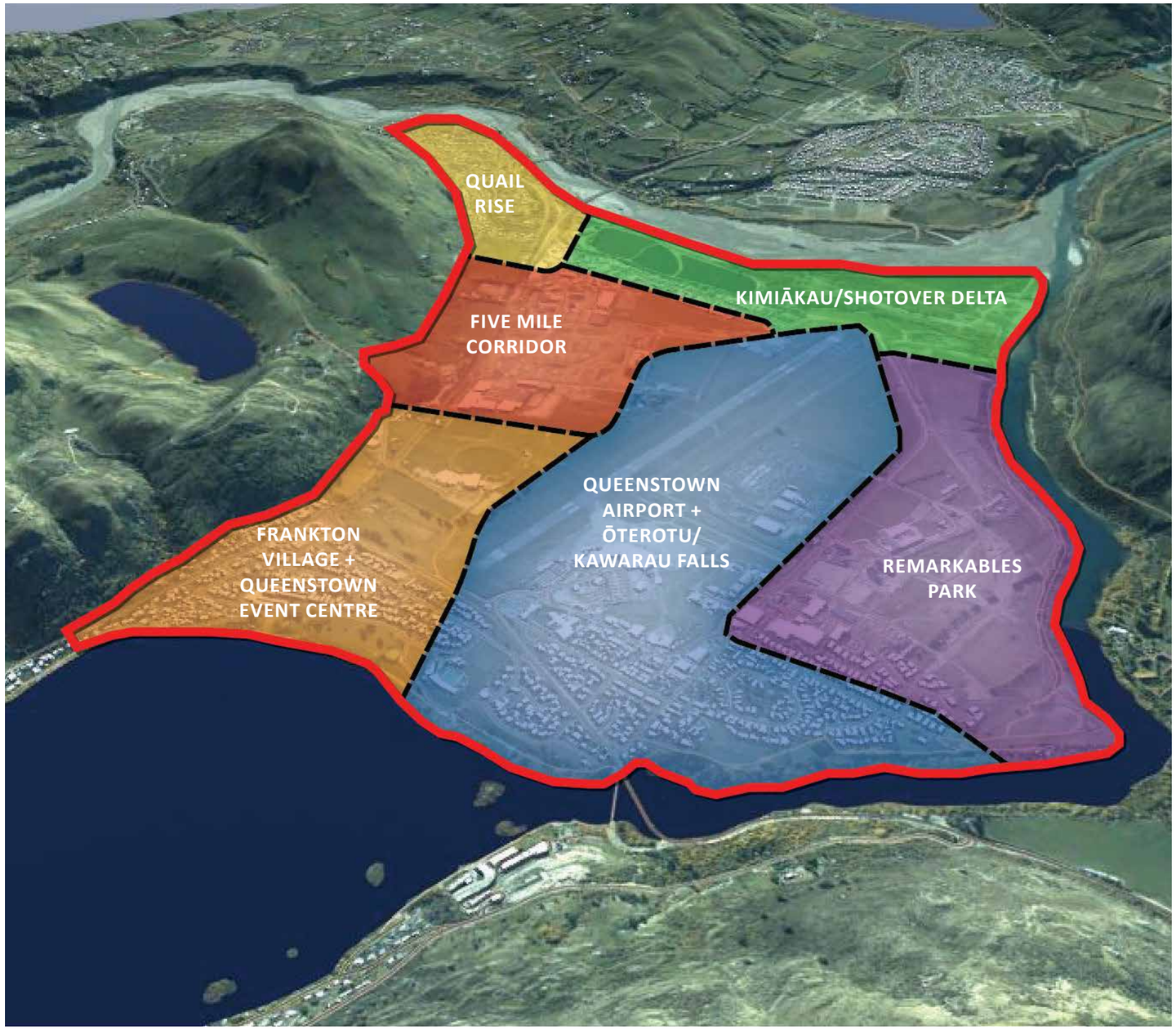
A public transport interchange is planned for the area between the Queenstown Event Centre and Frankton junction on the Frankton Golf Centre site. This is proposed to form the heart of a Transport Orientated Development, focussed on community facilities and a civic gathering space with other complementary retail and hospitality activities in support. There is currently a business case and related investigations being undertaken to determine the preferred mode, or mix of modes, and the timeframes for implementation of infrastructure and changes to service provision. Currently, several public transport modes are being considered including high capacity buses, trackless trams and gondolas. The provision for end-of-journey active travel facilities (e.g. secure bike storage, change facilities, etc.) will also need to be considered. No park and ride facilities are proposed in conjunction with the interchange, as these will likely be provided outside the Masterplan area to minimise car-based travel using the bridge crossings. In addition to this the interchange will be a short walk from the regional and tourist coach hub linked to the Queenstown Airport.

ACTIVE TRAVEL NETWORK

An established network of recreational trails link into the Masterplan area and it is proposed to provide greater continuity between these; expand the number of crossings and route options; and enhance facilities to better support cycle commuters and walking accessibility to more intensive land uses. The Masterplan area is key to improving connectivity and liveability for the residents and visitors broadly across the Wakatipu Basin, providing a high quality experience through being safe, connected and convenient. This aims to increase the number of people who walk and cycle, minimising the need for more investment-heavy transport infrastructure. These active travel network improvements will include upgrading existing routes, developing new routes, river crossings, recreational trails and local street-based connections. The wider network will service people within Te Kirikiri/Frankton and to surrounding areas and is being progressed through a business case, as part of the W2G programme.

4.5 MASTERPLAN PRECINCTS

Within the context of broader land use patterns and movement networks, the Masterplan area has been broken down into several distinct precincts. The evolution of precincts over the 30-year period are anticipated to build upon the valuable natural and built characteristics of the existing areas and to develop in particular ways that collectively contribute to the overall vision for the Masterplan area. An evaluation of each precinct was undertaken as part of the stakeholder engagement process to help understand what defines and differentiates them, and what actions and interventions might help them most effectively contribute to the long term future of Te Kirikiri / Frankton. Each of the precincts outlined on the plan to the right are set out on the following pages with a description and key characteristics.




PRECINCT 1 :
QUAIL RISE


PRECINCT 2:
FIVE MILE CORRIDOR


PRECINCT 3:
FRANKTON VILLAGE +
QUEENSTOWN EVENT CENTRE


PRECINCT 4 :
QUEENSTOWN AIRPORT +
ŌTEROTU/KAWARAU FALLS


PRECINCT 5:
REMARKABLES PARK


PRECINCT 6:
KIMIĀKAU/SHOTOVER DELTA

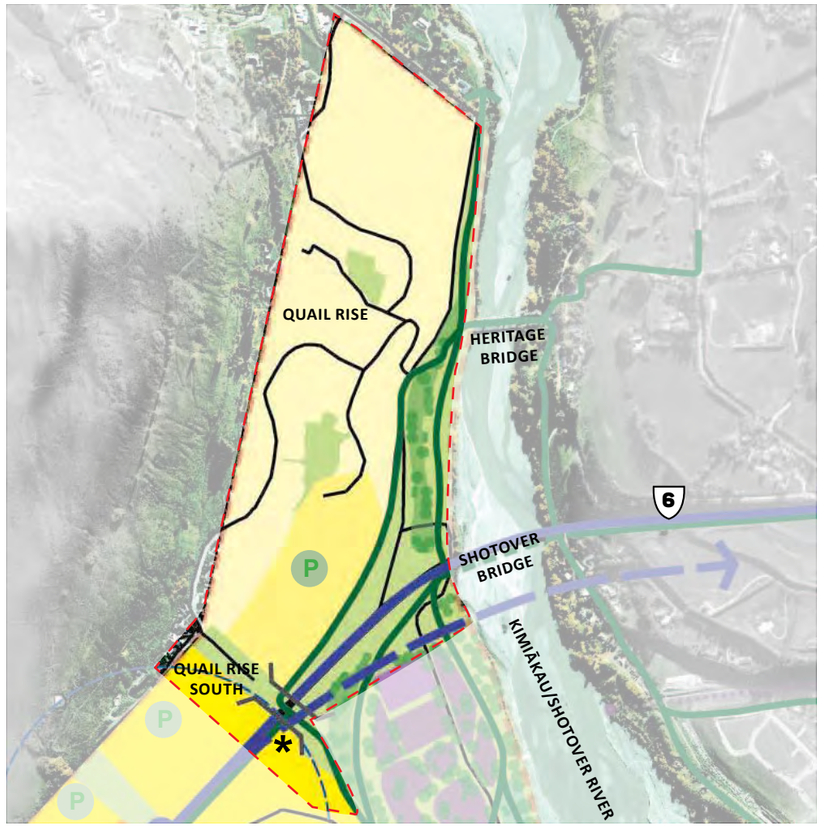
4.6 PRECINCT 1 : QUAIL RISE

PRECINCT DESCRIPTION

The southern part of the precinct is one of the key land-based gateways into the Masterplan area, heightened by the SH6 road bridge and cutting through the terrace embankment. There is also a long-term opportunity for medium density infill closer to the Five Mile Urban Corridor with the emphasis being on achieving key linkages across this corridor to reduce severance, particularly safe crossings for active travel modes over SH6, and open space provision for intensifying residential areas. Recent intersection improvements provide good accessibility to the lower Kimiākau/Shotover Delta to service large recreation areas and the proposed Kimiākau Zero Waste Community Eco Park. The northern parts of Quail Rise will be more focused on enhancing active travel connections from the historic bridge and maintaining a suburban, neighbourhood feel as the banks of the Kimiākau/Shotover River converge.

PRECINCT CHARACTERISTICS

- Provide a higher amenity, revegetated gateway for Queenstown that integrates the Zero Waste Kimiākau Community Eco Park and/or screens adjacent infrastructure.
- Explore the opportunity for a landmark art installation at the top edge of the Frankton Flat terrace.
- Develop a higher-level, active travel route linking the heritage bridge landing to Frankton Flats. An active travel bridge over the terrace embankment cutting connect southern and western precincts.
- Protect a viewshaft extending out from the new active travel bridge to visually connect users with outstanding natural landscapes to the north.
- Promote medium density infill closer to the Five Mile Urban Corridor over the longer term, supported by an urban park
- Maintain the remaining Quail Rise area as a suburban neighbourhood feel.



KEY

Masterplan area

MOVEMENT NETWORKS

- Public transport route/stops (separated lanes or priority)
- Orbital bus route / stops
- Gondola lines / base station (private)
- Ferry route / stops
- Street network
- Active travel network (walking and cycling)
- New road corridor
- Freight route
- Bridge crossing (Active travel and / or public transport)
- 400m (5min) walking distance
- PR Park and Ride
- CS Cultural significance
- * Potential gateway feature

LAND USE

- Higher density residential
- Medium density residential
- Lower density residential
- Mixed use (includes residential)
- Small to medium format retail
- Large format retail
- Commercial (excludes residential)
- Light industrial and utilities
- Community facilities (buildings)
- Queenstown Airport Corporation (subject to separate process)
- Active open space
- QEC Recreation Masterplan area (subject to separate process)
- Passive open space
- P Urban park (location and size subject to levels of service)
- Native revegetation
- Tussockland / wetland

CONSTRAINTS

- Queenstown Airport noise contours (existing)
- Transmission lines

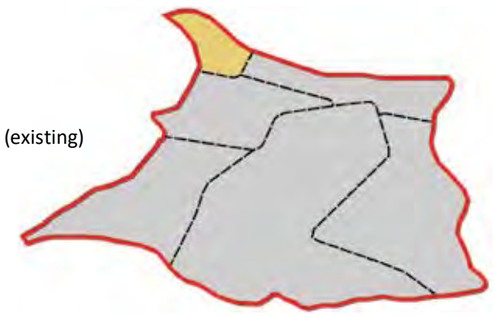


Image credit: https://www.myguidequeenstown.com/things-to-do/old-lower-shotover-bridge

4.7 PRECINCT 2: FIVE MILE URBAN CORRIDOR

PRECINCT DESCRIPTION

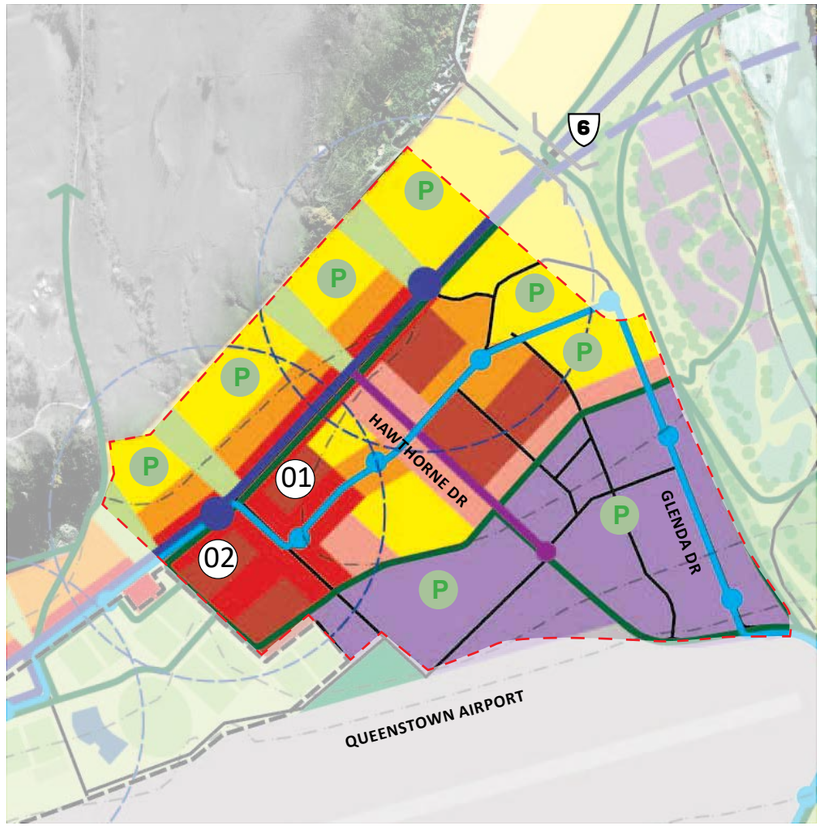
There is extensive greenfield land on either side of the SH6 that provides an opportunity to establish a comprehensively designed urban corridor. This would comprise a high amenity, multi-modal arterial route supported by intensive mixed use either side. A diverse mix of people are likely to use this precinct, which emphasises the need to provide for high levels of accessibility and movement along and across the SH6 corridor, while reducing severance and improving safety.

A small to medium format retail-based high street is already being established parallel to SH6. The continuation of existing laneways, established as part of the Five Mile Shopping Centre and Queenstown Central developments, and the protection of viewshafts between buildings will be important for ensuring pedestrian permeability and maintaining strong visual connections with the natural landscapes to the north and south. Larger format retail and community anchors are provided at either end, including Queenstown Event Centre and Five Mile Shopping Centre to the west and PAK'n Save supermarket and other trade supply stores to the east.

Higher density residential, supported by urban parks, and commercial developments are proposed as the next tier of development out from the urban corridor. This is starting to establish with medium density terraces adjacent to the Queenstown Central development and commercial developments lining Hawthorne Drive. Glenda Drive north is currently an industrial area with larger lots and some heavier industries than those to the south. There is an opportunity to transition this area towards higher density residential to benefit from the high levels of public transport and land use accessibility along the corridor and recreational amenities proposed for the Kimiākau/Shotover Delta. The remaining industrial land is anticipated to fill out and consolidate within the more sensitive Queenstown Airport noise corridors with larger and heavier activities to be located elsewhere in the District.

PRECINCT CHARACTERISTICS

- Create a dramatic urban arrival experience into Queenstown by transitioning SH6 into an urban arterial at the top of the terrace embankment cutting.
- Strengthening the urban form relationship, matching high capacity public transport with intensive land uses, along the urban corridor and to better utilise land outside Queenstown Airport noise contours.
- Foster a general focus on local resident service, employment and affordable residential offerings.
- Complement and extend the existing retail high street approach along the urban corridor, by providing walkable route / circuits between them and convenient public transport stops to support key existing nodes.
- Sleeve existing larger format retail stores with small to medium sized, pedestrian-oriented land uses and interventions to create positive precinct character and support a slower speed environment along the urban corridor.
- Incorporate urban parks to improve amenity and complement intensification of adjacent land uses.
- Improve active travel linkages from Frankton Flats to the enhanced Kimiākau/Shotover Delta.
- Support the servicing of industrial areas by protecting the freight link along Hawthorne Drive.



KEY

Masterplan area

MOVEMENT NETWORKS

- Public transport route/stops (separated lanes or priority)
- Orbital bus route / stops
- Gondola lines / base station (private)
- Ferry route / stops
- Street network
- Active travel network (walking and cycling)
- New road corridor
- Freight route
- Bridge crossing (Active travel and / or public transport)
- 400m (5min) walking distance
- PR Park and Ride
- Cultural significance
- Potential gateway feature

LAND USE

- Higher density residential
- Medium density residential
- Lower density residential
- Mixed use (includes residential)
- Small to medium format retail
- Large format retail
- Commercial (excludes residential)
- Light industrial and utilities
- Community facilities (buildings)
- Queenstown Airport Corporation (subject to separate process)
- Active open space
- QEC Recreation Masterplan area (subject to separate process)
- Passive open space
- P Urban park (location and size subject to levels of service)
- Native revegetation
- Tussockland / wetland

CONSTRAINTS

- Queenstown Airport noise contours (existing)
- Transmission lines

KEY FEATURES

1. Queenstown Central Shopping Area
2. Five Mile Shopping Area

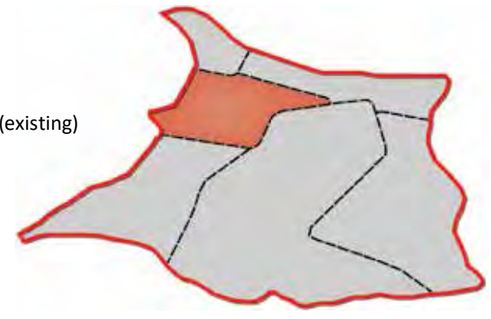


Image credit: La Rep des Pyrenees

4.8 PRECINCT 3: FRANKTON VILLAGE + QUEENSTOWN EVENT CENTRE

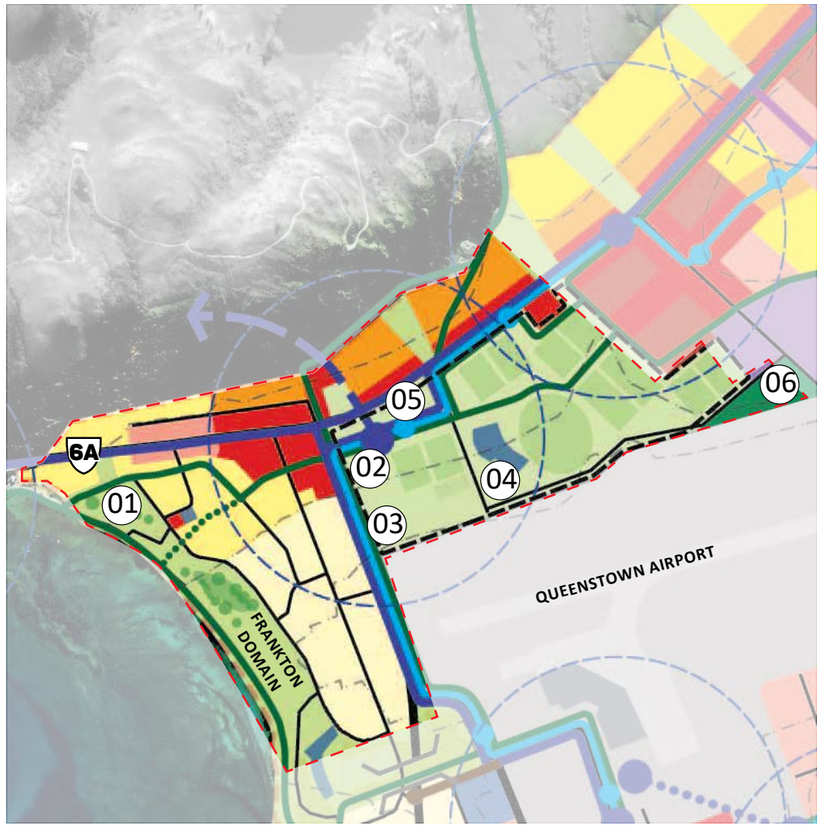
PRECINCT DESCRIPTION

This area comprises the more established parts of the Masterplan area. It includes a moderately sized neighbourhood centre situated at the regionally important junction of Frankton Road (SH6A), Frankton-Ladies Mile Highway and Kawarau Road (both SH6). The centre services the state highway users with commercial activities, petrol stations and takeaway food outlets and provides convenience retail and hospitality for lower density residential areas. The residential parts of the neighbourhood largely occupy sloping land towards the Frankton Arm of Lake Wakatipu with Frankton Campground and Frankton Beach / Domain popular destinations at the lake edge.
The Queenstown Event Centre is a major multi-purpose community and recreational facility with expansive areas of outdoor courts and pitches on Frankton Flats with its own Masterplan to integrate. The nine-hole Frankton Golf Centre and driving range is in a strategic position adjacent, located at the junction opposite the neighbourhood centre.

The junction area represents an opportunity to enhance the existing bus hub into a more effective transport node, allowing the efficient transfer of Public Transport users between services and maximising the benefits of the higher volumes of people that pass through this area. There are very few civic gathering spaces within the Masterplan area and a large public square could complement this node. These needs correlate with the increasing operational constraints on the golf course land with greater demand for public access; potential expansion needs of both QEC and Queenstown Airport; and the youth engagement feedback for more entertainment venues. Existing emergency service providers across Te Kirikiri/Frankton are also seeking to redevelop their facilities and change operational models in response to growth and their own site constraints. This location can provide optimal response times for these services. Stakeholders raised concerns about the conflict between movement and community functions within this precinct, anticipating a strain placed on the transport network with the introduction of enhanced public transport and emergency vehicles, which will be important to manage for the safety of diverse users.

PRECINCT CHARACTERISTICS

- Transport Orientated Development opportunity around a key transport node with a community and entertainment focus.
- Provision of a public transport interchange with associated high-quality civic space and supporting land use activities.
- Expanding and intensifying recreational and community facilities in association with the QEC Recreation Masterplan and the relocation of Frankton Golf Centre.
- Establishing an Emergency Precinct (e.g. Fire and Emergency, Ambulance, Police, Air Rescue, Civil Defence) adjacent to the Queenstown Airport, in coordination with QAC and SDHB.
- Direct active travel and visual links between QEC and the lake alongside the redevelopment of Frankton Campground.
- Enhancement of Frankton Beach and Domain as a high-quality destination, primarily for local residents.
- Coordinate proposals for Frankton Road enhancements and the Frankton Marina precinct.



KEY

- Masterplan area

MOVEMENT NETWORKS

- Public transport route/stops (separated lanes or priority)
- Orbital bus route / stops
- Gondola lines / base station (private)
- Ferry route / stops
- Street network
- Active travel network (walking and cycling)
- New road corridor
- Freight route
- Bridge crossing (Active travel and / or public transport)
- 400m (5min) walking distance
- PR Park and Ride
- Cultural significance
- Potential gateway feature

LAND USE

- Higher density residential
- Medium density residential
- Lower density residential
- Mixed use (includes residential)
- Small to medium format retail
- Large format retail
- Commercial (excludes residential)
- Light industrial and utilities
- Community facilities (buildings)
- Queenstown Airport Corporation (subject to separate process)
- Active open space
- QEC Recreation Masterplan area (subject to separate process)
- Passive open space
- P Urban park (location and size subject to levels of service)
- Native revegetation
- Tussockland / wetland

CONSTRAINTS

- Queenstown Airport noise contours (existing)

KEY FEATURES

1. Frankton Campground redevelopment
2. Public transport interchange
3. Emergency precinct
4. Events centre extension
5. Community hub
6. Arranmore / McBride Farm heritage area

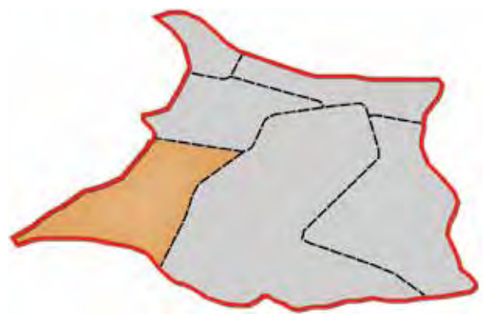


Image credit: Christchurch Bus Interchange, Christchurch - Architectus

Image credit: Queenstown ambulance service, Radio New Zealand

4.9 PRECINCT 4: QUEENSTOWN AIRPORT + ŌTEROTU/KAWARAU FALLS

PRECINCT DESCRIPTION

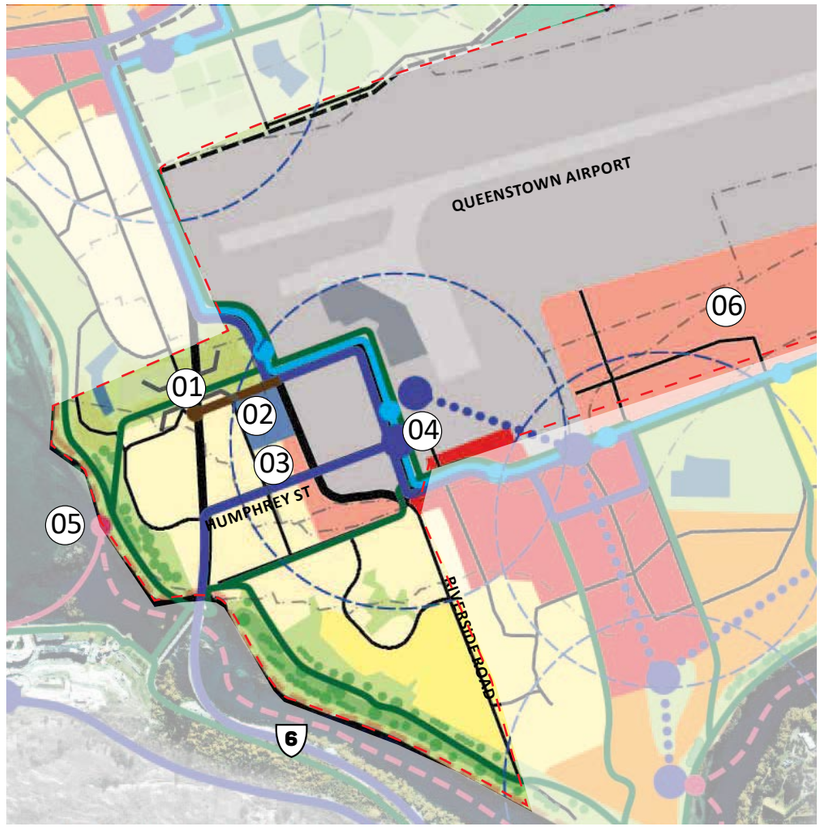
Queenstown Airport occupies the bulk of the precinct and its terminal is another significant district-wide gateway and major destination. The scenic air approach into the Queenstown Airport is one of the best internationally, but is not currently matched by the landside visitor experience and more dominated by car parking, lower quality general aviation and rental car facilities. The Queenstown Airport is developing a Masterplan to accommodate growth and improve both airside and landside facilities.

The southern part of the precinct is one of the key land-based gateways into the Masterplan area, heightened by the recent completion of the (SH6) Kawarau Road bridge and associated landscaping; adapted reuse of the heritage bridge for active travel; and the cutting through the terrace embankment. The bridge crossing is located at the outlet of Lake Wakatipu at Ōterotu/Kawarau Falls and connects with active travel routes along the Kawarau River, Frankton Arm and into Remarkables Park. The esplanade reserve has close historical associations with the now intensively developed Kawarau Falls development opposite.

The presence of Kawarau Road (SH6) through the precinct was identified by stakeholders as a barrier to access between Frankton Flats (e.g. Remarkables Park, Wakatipu High School, Lakes District Hospital, Queenstown Airport) and Lake Wakatipu (e.g. Queenstown Trails, Frankton Beach, Remarkables Primary School), causing community severance and perceived safety concerns. Development constraints relating to the Queenstown Airport noise contours mean it is less optimal to follow a similar development approach to Five Mile Urban Corridor with associated slower speeds and controlled crossing points until closer to Frankton Village. The weak connection between SH6 (Kawarau Road) and the Eastern Access Road (Hawthorne Road) adds to this severance by bringing most traffic back across the precinct via Lucas Place.

PRECINCT CHARACTERISTICS

- Develop a lake link bridge over SH6 to reduce community severance, while improving the visual Queenstown Airport gateway and southern SH6 experience for visitors into Queenstown.
- Coordinate multi-modal transport connections with QAC to improve access to higher capacity public transport connections and establish a regional and tourist coach terminal to reduce reliance on self-drive cars.
- Support potential ferry services from a proposed jetty at Ōterotu/Kawarau Falls, helping to avoid more traffic on Frankton Road and providing an enhanced visitor experience in association with the proposed lake link.
- Strengthen road connections between Kawarau Road and Hawthorne Drive, via Humphrey St, to reduce public transport and active travel conflicts.
- Investigate potential long term relocation options for Lakes District Hospital.
- Enhance the esplanade reserve along Ōterotu/Kawarau Falls to recognise opportunities for revegetation and stronger cultural heritage associations that tie in with the quality of treatments at Kawarau Falls development opposite.



KEY

Masterplan area

MOVEMENT NETWORKS

- Public transport route/stops (separated lanes or priority)
- Orbital bus route / stops
- Gondola lines / base station (private)
- Ferry route / stops
- Street network
- Active travel network (walking and cycling)
- New road corridor
- Freight route
- Bridge crossing (Active travel and / or public transport)
- 400m (5min) walking distance
- PR Park and Ride
- Cultural significance
- Potential gateway feature

LAND USE

- Higher density residential
- Medium density residential
- Lower density residential
- Mixed use (includes residential)
- Small to medium format retail
- Large format retail
- Commercial (excludes residential)
- Light industrial and utilities
- Community facilities (buildings)
- Queenstown Airport Corporation (subject to separate process)
- Active open space
- QEC Recreation Masterplan area (subject to separate process)
- Passive open space
- P Urban park (location and size subject to levels of service)
- Native revegetation
- Tussockland / wetland

CONSTRAINTS

- Queenstown Airport noise contours (existing)

KEY FEATURES

1. Lake link bridge
2. Lakes District Hospital (long-term reloca on)
3. Humphrey Street extension
4. Regional coach hub
5. Ferry je y
6. Commercial recrea on expansion

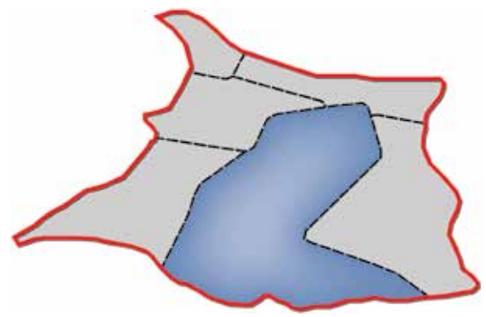


Image credit: Frame Magazine. Bus canopy in Aarau, Vehovar & Jauslin Architektur

Image credit: The High Line, New York

4.10 PRECINCT 5: REMARKABLES PARK

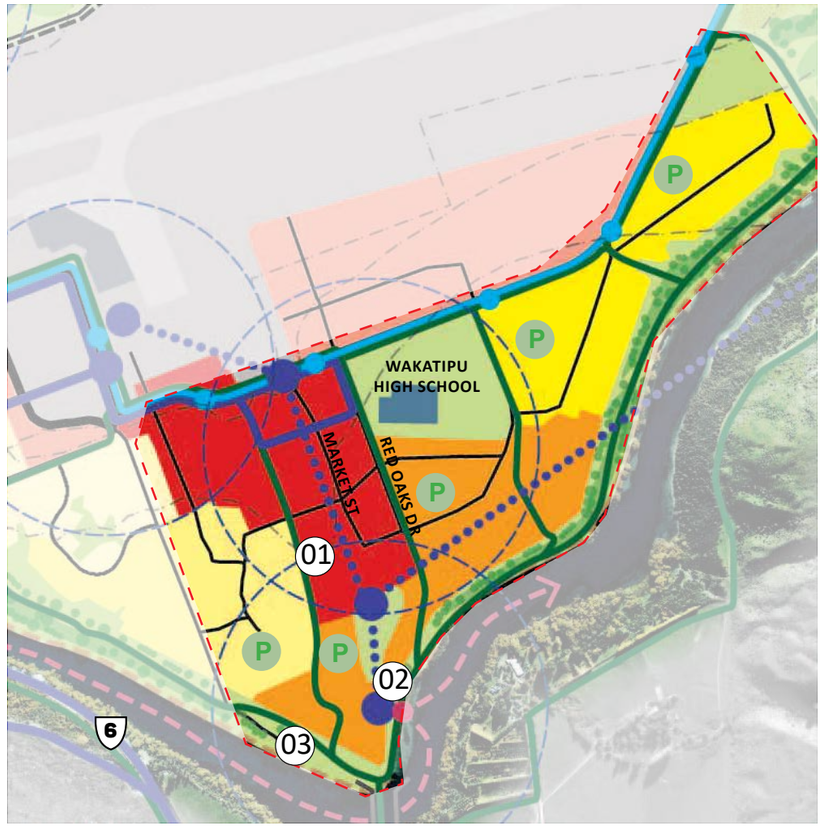
PRECINCT DESCRIPTION

Remarkables Park represents a large portion of the Masterplan area bounded by the Kawarau River and Queenstown Airport. This is progressively being developed, guided by its own Masterplan. The existing Remarkables Park development originated to the west of the precinct with residential areas of low to medium density and a medium to large format town centre close to Queenstown Airport. The Remarkables Market and the more recently established large commercial recreation area continues to expand eastwards within the more sensitive Queenstown Airport noise contours. Wakatipu High School is currently the only secondary school in the Wakatipu Basin and is located adjacent to Hawthorne Drive and has limited ability to expand further to accommodate future growth.

The undeveloped parts of the Masterplan to the south east of Frankton Flats allow for a broad mix of additional land uses and the present development area is to the immediate east of the town centre along Market Street, referred to as Remarkables Place. This orientates developments along a spine leading towards the proposed Quayside development and jetty adjacent to the Kawarau River. This area has a more of a focus on visitor-based offerings, through the provision of hotels, serviced apartments and hospitality supported by a conference centre and gondola connections to destinations beyond the Masterplan area, including the Remarkables Ski Area.

PRECINCT CHARACTERISTICS

- Continue to extending Market Street southwards to form part of a vibrant urban corridor, allowing the street to transition into a higher quality shared surface over time supported by associated civic spaces.
- Coordinate proposals for a conference / performing arts centres with other public community facilities and integrate with associated hotels and other commercial developments along Market Street.
- Align the proposed gondola lines and base stations with the wider transport network, including links to Queenstown Airport, regional and tourist coach hub, potential Quayside jet boat ferry services along the Kawarau River, and links to urban areas further south.
- Continue to develop remaining Masterplan areas in a combination of intensive mixed uses at higher residential densities supported by urban parks and revegetated esplanade reserves.
- Establishment of an active travel bridge crossing (maintaining potential to add an additional segregated public transport bridge) to support growth south of the Kawarau River, conveniently access Wakatipu High School and activate the Remarkables Park Town Centre and Market Street. This is to be developed sensitively, given its close relationship with an associated site of cultural significance to Kāi Tahu.
- Redevelop the Zoological Gardens into a high amenity Te Kirikiri/ Frankton Gardens and closely coordinate bridge landings and development interfaces with it.



KEY

- Masterplan area

MOVEMENT NETWORKS

- Public transport route/stops (separated lanes or priority)
- Orbital bus route / stops
- Gondola lines / base station (private)
- Ferry route / stops
- Street network
- Active travel network (walking and cycling)
- New road corridor
- Freight route
- Bridge crossing (Active travel and / or public transport)
- 400m (5min) walking distance
- PR Park and Ride
- Cultural significance
- Potential gateway feature

LAND USE

- Higher density residential
- Medium density residential
- Lower density residential
- Mixed use (includes residential)
- Small to medium format retail
- Large format retail
- Commercial (excludes residential)
- Light industrial and utilities
- Community facilities (buildings)
- Queenstown Airport Corporation (subject to separate process)
- Active open space
- QEC Recreation Masterplan area (subject to separate process)
- Passive open space
- P Urban park (location and size subject to levels of service)
- Native revegetation
- Tussockland / wetland

CONSTRAINTS

- Queenstown Airport noise contours (existing)

KEY FEATURES

1. Conference and arts centre
2. Quayside waterfront and je y
3. Te Kirikiri/Frankton Gardens

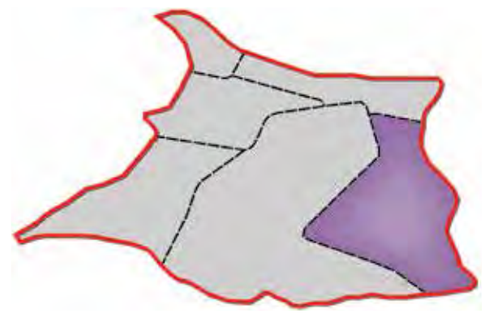


Image credit: Sørenga Central Park and Harbour Promenade, Oslo - Grindaker

Image credit: Thomas Q on Unsplash

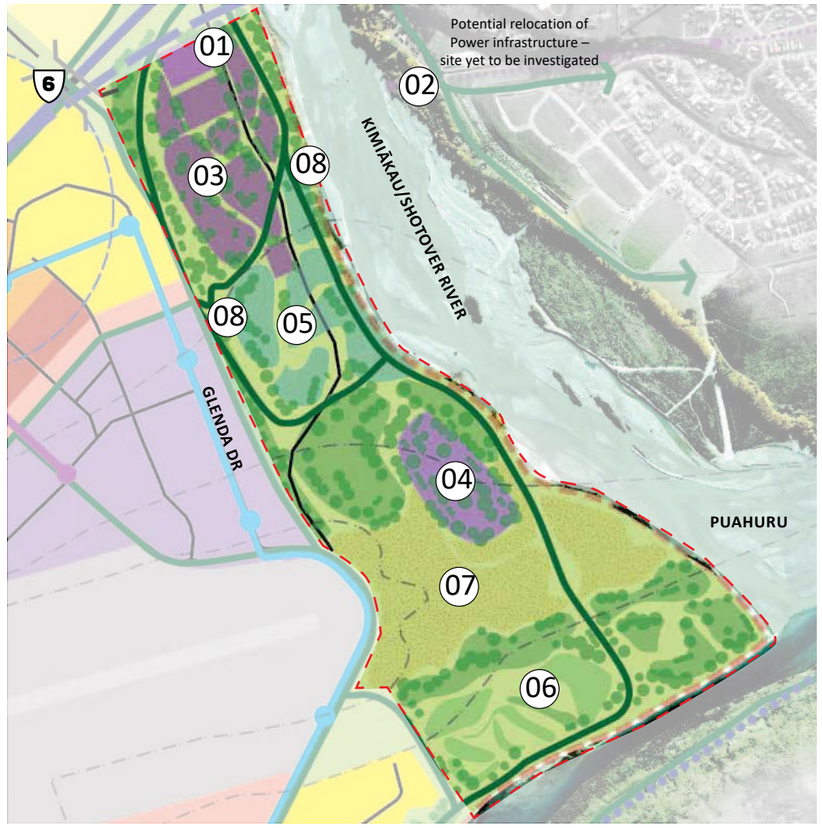
4.11 PRECINCT 6: KIMIĀKAU/SHOTOVER DELTA

PRECINCT DESCRIPTION

This is a largely underdeveloped, flood plain area at the confluence of the Kimiākau/Shotover and Kawarau Rivers, currently used for large scale wastewater treatment, alluvial gravel extraction and clean fill storage. It does have several recreational bike trails and is often used for informal dirt-bike riding. The eastern flightpath of Queenstown Airport passes over with a Runway End Safety Area (RESA) identified, an emergency access road from Frankton Flats and associated planting and standing water control measures to minimise bird strike. An emerging infrastructure cluster occupies the northern parts of the Delta and is proposed to be integrated together under the Kimiākau Zero Waste Community Eco Park concept with the main access point originating off SH6. Steep terrace embankments separate this precinct from Frankton Flats, covered with wilding pine and other scrubby vegetation that extends through to the recently revegetated tussock planting of the runway extension. Proposed consolidation and clustering of infrastructure and gravel extraction activities towards the northern end of the Delta, closer to SH6 access points, allows for the broad repurposing of the area adjacent to Kimiākau/Shotover River.

PRECINCT CHARACTERISTICS

- Enhancement of the natural gateway from the east and by air
- Creation of a new District Park that provides space for informal recreation and visual relief to support the intensification of Frankton Flats and other growth within the Wakatipu Basin. Activities could include nature walks, dog parks, pump tracks etc.
- Recognition of wāhi tūpuna (ancestral landscapes), particularly at the Kimiākau/Kawarau confluence - Puahuru.
- Upgrading of the active travel routes along the Delta and up to Frankton Flats as part of the broader network of trails.
- Revegetation of the terrace embankment, constructed wetlands and river edges to increase biodiversity and amenity.
- Potential to accommodate the relocation of the Frankton Golf Centre adjacent to the Kawarau River, in conjunction with water sensitive design approaches.
- Establish a Kimiākau Zero Waste Community Eco Park and gravel extraction cluster around the existing wastewater treatment plant that benefits from the proximity to SH6 and reduces the need for heavy vehicles to travel across the Kimiākau/Shotover Delta.
- Repurpose the oxidation ponds into revegetated constructed wetlands to complement braided river environment and support Ngā Rauemi (resource harvesting areas), while maintaining some resilience to protect the long term quality of the Kimiākau/Shotover River.
- Shortening of the high voltage transmission line corridor to terminate before Frankton Flats with potential relocation of power infrastructure to a site yet to be investigated.



KEY

- Masterplan area

MOVEMENT NETWORKS

- Public transport route/stops (separated lanes or priority)
- Orbital bus route / stops
- Gondola lines / base station (private)
- Ferry route / stops
- Street network
- Active travel network (walking and cycling)
- New road corridor
- Freight route
- Bridge crossing (Active travel and / or public transport)
- 400m (5min) walking distance
- PR Park and Ride
- Cultural significance
- Potential gateway feature

LAND USE

- Higher density residential
- Medium density residential
- Lower density residential
- Mixed use (includes residential)
- Small to medium format retail
- Large format retail
- Commercial (excludes residential)
- Light industrial and utilities
- Community facilities (buildings)
- Queenstown Airport Corporation (subject to separate process)
- Active open space
- QEC Recreation Masterplan area (subject to separate process)
- Passive open space
- P Urban park (location and size subject to levels of service)
- Native revegetation
- Tussockland / wetland

CONSTRAINTS

- Queenstown Airport noise contours (existing)

KEY FEATURES

1. Wastewater treatment plant
2. Reloca on of power infrastructure
3. Kimiākau Zero Waste Community Eco Park
4. Wastewater groun ltra on
5. Constructed wetland areas
6. Proposed golf course
7. Low-level tussockland plan ng
8. Na ve revegeta on on terraces and delta

KIMIĀKAU ZERO WASTE COMMUNITY ECO PARK

The vision for the Eco Park is to *'Be inspired to live a positive future where we learn to live harmoniously with nature and tread lightly on the planet while enjoying the highest quality of life'*. The Eco Park will help explore that vision for the future and learn about ways to help achieve it. In particular, the Environmental Learning Park component will be an integrated space, working with community partners transforming the way we live and work for a better community, economy, and environment – now and for the future. The location of the Eco Park is placed in relation to where people live, work and play so to have a greater chance of connecting people to place and strengthen sense of stewardship among users and community. Recreation opportunities promoting healthy lifestyles are an integral component and will be closely integrated with other parts of the Kimiākau/Shotover Delta. The Eco Park will include a range of compatible activities, promoting physical activity such as walking, biking, and gardening. A Re-sell Store, Resource Recovery Park and Recycling Facility for the community's recyclables will be co-located with a purpose built, modern, enclosed waste transfer station where materials are temporarily staged in the course of their journey to landfill. To reduce our dependence on landfill and ensure a zero waste future, the facilities will also ensure materials and resource stewardship is enabled through recovery of construction materials, organics and other reusable items. Improvements to the physical infrastructure managing the community's wastewater will offer opportunity to re-generate natural eco-systems associated with the braided river system of Kimiākau.

The Zero Waste Community Eco Park comprises of:

- Community Environmental Learning Park.
- Re-sell Store.
- Resource Recovery Park.
- Recycling Processing Facility.
- Waste Transfer Facility.
- Wastewater Treatment Facility.

Zero Waste Eco Park Concept Diagram
Image credit: Adapted from Eco Cycle Concept

5. IMPLEMENTATION STRATEGY

5.1 PHASING

The actions resulting from the Masterplan outcomes and precincts have been grouped and mapped out into logical phases, accounting for their interdependencies, urgency and impact.

The majority of the actions identified were largely in the short term phase (0-5 years), with fewer in the medium and long term phases. Testing of a draft phasing strategy was undertaken as part of final stages of the engagement process. As a result, a significant number of actions where bought forward from the medium/long term to the short term list, with a focus on prioritising implementation of transport and open space infrastructure. This is largely a response to the challenges that are considered to have critical and immediate effects. A number of those that were brought forward were also an acknowledgement that planning for some of the projects may require time therefore this should get underway immediately. All actions need to be cognisant of the partnership status and values of Kāi Tahu.

Actions such as the proposed orbital bus route, regional and tourist bus hub and active mode bridges were deemed critical and therefore were moved into the short term phase. Enhancing connections to Frankton beach and Lake Wakatipu were also rated highly in the short term phasing.

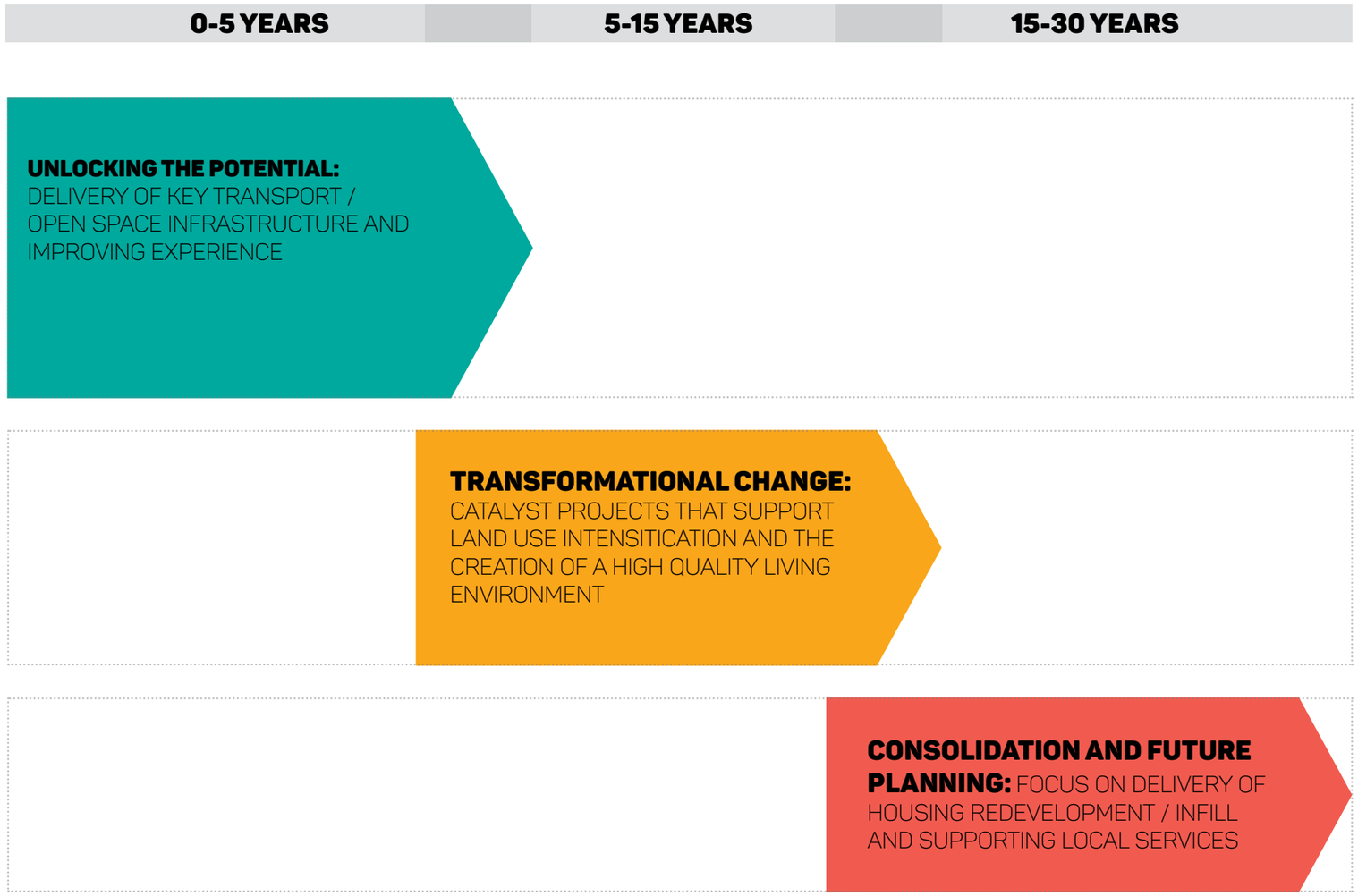
The medium term consensus focused on land use and intensification, including the QEC expansion and the development of the urban corridor. Residential intensification was placed in the medium term to enable the necessary infrastructure to be put in place earlier to support a growing population, however, there was still a desire to see a greater focus placed on ensuring that residential development within the Te Kirikiri/Frankton area was encouraged in the short term.

The general agreement was, that while there were a series of transport related actions in the short term, the step change for Te Kirikiri/Frankton would largely be driven by the delivery of high quality residential development that would make Te Kirikiri/Frankton a premium place to live. This would then drive other uses within the area.

The overarching phases are set out as following:

- **Unlocking the Potential:** Delivery of key transport / open space infrastructure and improving experience
- **Transformational Change:** Catalyst Projects That Support Land Use Intensification and The Creation of A High Quality Living Environment
- **Consolidation and Future Planning:** Focus on Delivery of Housing Redevelopment / Infill and Supporting Local Services

The actions are split across timeframes, geographical areas, type and by responsibility. A schedule of actions is outlined in section 4.13. This schedule details the nature of the action, where it is proposed to sit in terms of phasing and dependencies.



The diagram to the right is a geographical representation of the proposed phasing strategy for the Masterplan area. This only incorporates physical and network changes to the urban area, the broader set of actions are covered in the Action Plan Schedule on the following pages.

SHORT TERM 0-5 YEARS

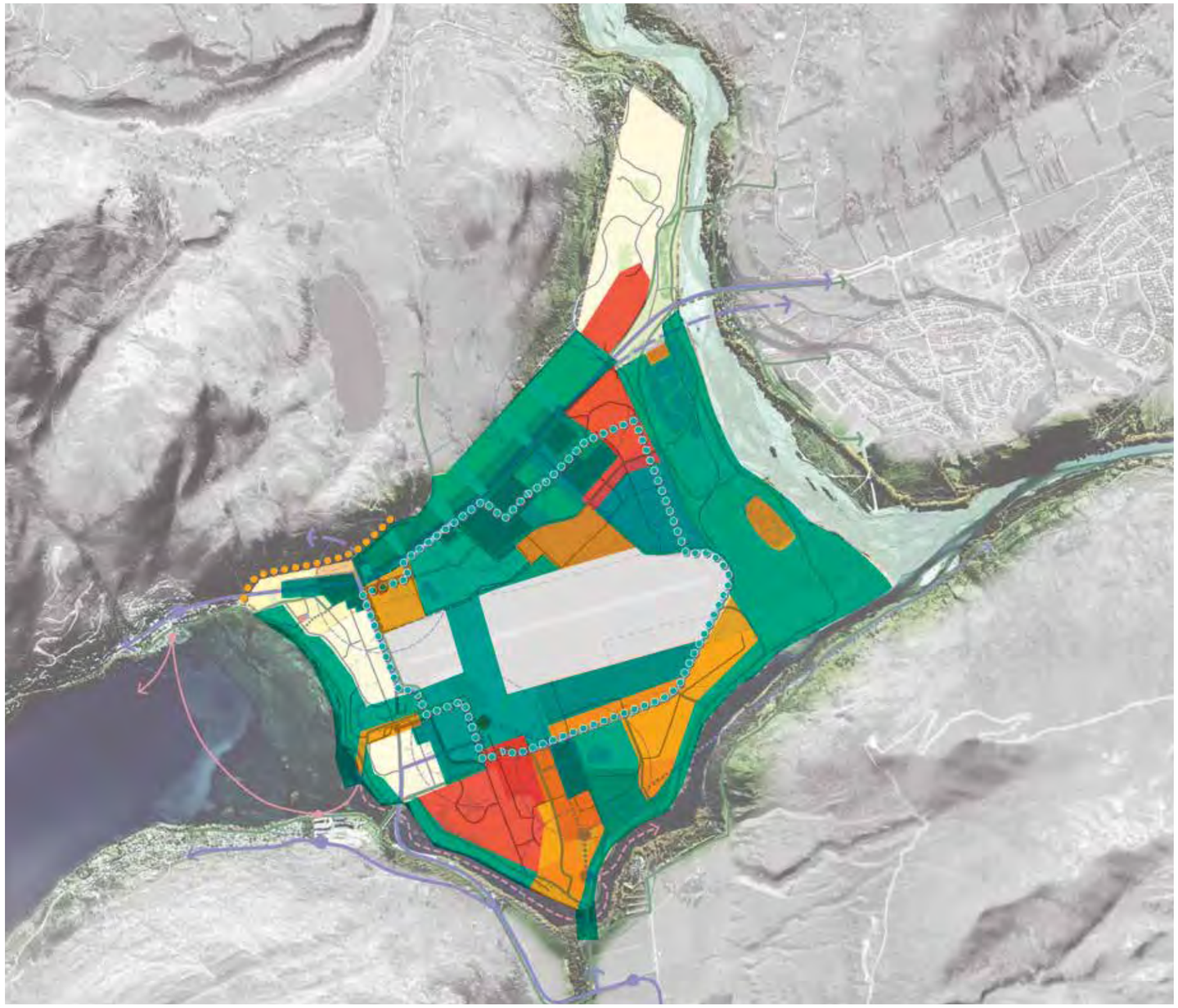
- Active Travel Network
- Native revegetation along Esplanade Reserves / Strips
- Wakatipu High School buildings expansion
- Remarkables Place
- Hawthorne Drive commercial
- Five Mile Shopping Centre and Queenstown Central eastern extension
- Industrial Zone consolidation
- Five Mile Urban Corridor
- Resource Recovery Centre relocation
- Frankton Beach / Domain enhancement
- Community Hub
- Frankton Campground redevelopment and Stewart St extension
- Arranmore/McBride Farm heritage precinct
- Public Transport Interchange
- Decommissioning Oxidation ponds
- Ōterotu / Kawarau Falls heritage waterfront
- Lakes District Hospital relocation
- Ferry Facilities
- Regional Coach and Tourist Hub

MEDIUM TERM 5-15 YEARS

- Transmission line relocation
- Te Kirikiri/Frankton Gardens
- Mixed use transition zone
- Potential Arrow Water Race trail to Frankton Marina with signalised crossing
- Emergency Precinct
- Frankton Village redevelopment and extension
- Wastewater treatment plant expansion
- Kimiākau / Shotover Delta District Park
- Ngā rauemi (resource harvesting areas)
- Lake Link
- Humphreys Road extension

LONG TERM 15-30 YEARS

- Quail Rise infill housing
- Future residential infill south of Frankton urban area
- Glenda Drive (North) regeneration



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MPO1 INTEGRATING WITH THE WATER'S EDGE
MPO2 MULTIFACETED GATEWAY INTO THE DISTRICT
MPO3 ENHANCING THE LOCAL NETWORK
MPO4 UNIFIED AND INTEGRATED URBAN CENTRES
MPO5 LIVING AND GROWING IN HARMONY WITH NATURE
MPO6 INCLUSIVE NEIGHBOURHOODS

5.2 ACTION PLAN SCHEDULE

Action	Precinct	Status	Type	Description	Dependencies	Timeframe	Responsibilities	MPO1	MPO2	MPO3	MPO4	MPO5	MPO6
Structure Plan	All	Proposed (new)	Planning + strategy	Development of a Structure Plan to enable the implementation of the Masterplan and Precinct Plans. The plan should incorporate Infrastructure networks (3W, power, refuse etc), Community facilities, a land use mix needs (demand) analysis, open space provision by typology, transport infrastructure and natural hazards overlays.	Queenstown Lakes District Spatial Plan, District Plan Review and related Strategies, Plans, Policies and Bylaws	High Priority/Short term	Way To Go + QLDC - Planning and Development	x	x	x	x	x	x
Detailed Business Cases	All	Proposed (new)	Planning + strategy	Completion of the Detailed Business Cases for Grant Road to Kawarau Falls, SH6 Frankton-Ladies Mile Rd to Shotover Bridge; Active Travel network through Frankton Flats; PT network across the Wakatipu Basin and Frankton	Coordination between the array of Business Cases and Masterplans	High Priority/Short term	Way To Go	x	x	x	x	x	x
Orbital Bus Route	All	Proposed (new)	Essential services	Orbital bus enabling accessible and efficient movement of people around the Masterplan area, linking urban centres and key destinations. A trial is to be undertaken in the short term with a more	QEC and QAC masterplans, Five Mile Urban Corridor;	High Priority/Short term	Way To Go			x		x	
Kāi Tahu Design Strategy	All	Proposed (new)	Planning + strategy	Building on the work undertaken as part of this and other Masterplans, develop a strategy to apply Kāi Tahu values and narrative to design and implementation of Masterplan actions.		High Priority/Short term	Kai Tahu +QLDC	x	x	x	x	x	x
Parks and Reserves Development and Management Plans	All	Proposed (new)	Planning + strategy	Preparation and implementation of Development and Management Plans for Parks and Reserves to create a open space network comprising of public land and water resources. This requires coordinated implementation between Council and private sector, through enhancement and expansion of existing parks and reserves and addition of vested urban parks.	Parks and Reserves Development and Management Plans; New Streets; Five Mile Urban Corridor; Kimiākau / Shotover Delta; Revegetation of Esplanade Reserves / Strips; QEC Masterplan; Frankton Campground Redevelopment; Frankton Beach / Domain; ngā rauemi (resource harvesting areas).	High Priority/Short term	QLDC - Community Services	x	x	x	x	x	x
Develop monitoring and review processes	All	Proposed (new)	Planning + strategy	Development of a monitoring strategy for the implementation of the Masterplan	Endorsement of the Masterplan and alignment with parallel Strategies, Plans and Business Cases	Short term	Way To Go	x	x	x	x	x	x
Residential design guidelines	All	Proposed (new)	Planning + strategy	Development of Frankton specific design guidelines that help build a unique character for the area that has a strong connection to the natural setting and promote sustainability, intensification and innovation in housing.	District Plan Review, other interrelated design guides within the District.	Short term	QLDC - Planning & Development	x	x		x	x	x
Sustainable movement options	All	Proposed (new)	Environmental	Step-change towards greater use of public transport and active travel options to reduce car dependency and lower the overall carbon footprint. This includes advanced transport infrastructure delivery to support intensifying land uses. Provision for micro transport (e.g. scooters) to support door-to-destination options across the movement network.	Detailed Transport Business Cases; Lake Link; Transport Interchange; QEC and QAC masterplans.	Short term	Way To Go + Transport Management Association	x	x	x	x	x	x
Active Travel Network	All	Proposed (new)	Public realm	Walking and cycling trails on and off road that suppliment those already included within the Wakatipu Active Travel Network, supported by bridge crossings and controlled intersections promotes safe, accessible and well connected movement network.	QEC and QAC Masterplans; Lake Link; Kawarau River and SH6 Frank Bridge Crossings; Five Mile Urban Corridor.	Short term	Way To Go	x	x	x	x	x	x
Native revegetation along Esplanade Reserves / Strips	All	Proposed (new)	Environmental	Removing weed species and carrying out native revegetation along esplanade reserves / strips of rivers and lake contributes to environmental outcomes (e.g. water quality, biodiversity), creates amenity, establishes character and fosters wellbeing through connection to nature. Implementation could be either via Council /	Parks and Reserve Development and Management Plans; Kimiākau Community Eco Park; Active Travel Network; Lake Link.	Short term	QLDC - Community Services + QLDC - Property & Infrastructure	x		x		x	x
Local material sourcing and storage	All	Proposed (new)	Environmental	Transitional provision for local contractors to source and store local materials to reduce freight movements and carbon footprint. Requires Council and contractor coordination and managing reverse sensitivity with new intensive developments. Includes provision for extractive operations within Kimiākau / Shotover Delta.	Kimiākau / Shotover Delta Enhancements; Glenda Drive North Regeneration; Five Mile Urban Corridor	Short term	QLDC - Planning & Development		x	x		x	
Infrastructure innovation, efficiency and intensification review	All	Proposed (new)	Planning + strategy	Investigating the potential for the integration of smart technology, low impact design, alternative means of energy generation, maximisation of existing infrastructure and monitoring within the existing and future infrastructure portfolio. Collaboration between QLDC and infrastructure providers to align growth and intensification with infrastructure development.	Queenstown Lakes District Spatial Plan, collaboration between QLDC and infrastructure providers.	Short term	QLDC - Property & Infrastructure						

Action	Precinct	Status	Type	Description	Dependencies	Timeframe	Responsibilities	MPO1	MPO2	MPO3	MPO4	MPO5	MPO6
Water Sensitive Design integration into infrastructure codes	All	Proposed (new)	Environmental	Review of infrastructure code of compliance and management regimes to ensure Water Sensitive Design (WSD) best practice for local conditions, including treating and attenuating stormwater runoff at source point (e.g. permeable surfaces, rain gardens, etc.) before reaching rivers and lake. Coordinated funding and implementation by Council and private sector, both within urban parks and vested / public road reserves.	Regulatory Standards Review; Five Mile Urban Corridor; Humphrey Drive Extension;	Short term	QLDC - Property & Infrastructure	x				x	x
Transmission line relocation	All	Existing - relocating	Essential services	Potential relocation of power infrastructure from Frankton Flats by terminating the high voltage transmission lines earlier and creating greater development potential closer to high capactiy public transport routes and with higher amenity outcomes.	Funding; subject to Transpower site investigations.	Medium term	Aurora		x		x		x
Strategic Land Purchase Review	All	Proposed (new)	Planning + strategy	Review of potential sites for acquisition to enable key moves within the Masterplan	Precinct Plans, Detailed Business Cases and service provision reviews for potential activities and anchor uses.	High Priority/Short term	Way To Go	x	x	x	x	x	x
Sustainability and resilience strategy	All	Proposed (new)	Planning + strategy	Development of a strategy and programme of work that will drive sustainability and resilience aspirations within the Masterplan. This could set out targets, strategic goals and underpin an array of initiatives such as educational and advocacy projects. This should cover social,	Queenstown Lakes District Spatial Plan, District Plan Review and related Strategies, Plans, Policies and Bylaws. Utilise partnerships and collaboration	Short term	QLDC - Policy	x	x	x	x	x	x
Public realm design guidelines	All	Proposed (new)	Planning + strategy	Development of public realm design guidelines that support the delivery of a network of streets and spaces that balance the local aspirations and needs with the wider district network requirements.	Infrastructure Design Standard, Transport Business Cases.	Short term	QLDC - Property & Infrastructure	x	x	x	x	x	x
Placemaking Strategy	All	Proposed (new)	Planning + strategy	Development of a programme that focuses on creating a unique sense of place through the delivery of transitional projects, demonstration projects and event. This provides an opportunity for quick wins, community engagement and testing and trailing of ideas. This could be a community led initiative enabled by Council and could deliver on a range of Masterplan Outcomes.	Policies and bylaws, funding, integration of parallels programmes of work and collaboration between operating units within agencies, i.e. roading, infrastructure, assets, parks and events teams.	Short term	QLDC - Community Services	x	x	x	x	x	x
Quail Rise Precinct Plan	Quail Rise	Proposed (new)	Planning + strategy	A plan developed with key stakeholders that further investigates a higher amenity, revegetated gateway for Queenstown that integrates and screens adjacent infrastructure; landmark art instillation; develop a higher-level, active travel route linking heritage bridge landing to Frankton Flats; including an active travel bridge over the terrace embankment cutting; establishments of viewshafts; establish an infrastructure and extraction cluster, high voltage transmission substation; repurposing the oxidation ponds into revegetated constructed wetlands; establishments of viewshafts; medium density infill, supported by an urban park; and creation of a positive precinct character.	Transport Business Cases	Short term	Way To Go + QLDC - Planning and Development	x	x	x	x	x	x
Quail Rise Infill Housing	Quail Rise	Existing - redevelop	Land use	Opportunity for medium density infill housing on larger sites closer to the Five Mile Urban Corridor with complementary open space provision for intensifying the residential area.	Five Mile Urban Corridor; District Plan Review.	Long term	QLDC - Planning & Development	x			x	x	x
Wakatipu High School Buildings Expansion	Remarkables Park	Existing - redevelop	Behavioural/education	Wakatipu High School buildings expansion to meet increasing demand in youth demographic, supported by High Capacity Public Transport and Active Travel Network. Consideration is also required for second high school outside Masterplan area.	Remarkables Park Masterplan	Short term	Ministry of Education				x		x
Remarkables Place	Remarkables Park	Proposed (new)	Public realm	Continue Market Street urban corridor towards the proposed Quayside development and jetty adjacent to the Kawarau River. Enhance visitor-based offerings, through the provision of hotels, serviced apartments and hospitality supported by a conference centre and gondola connections to destinations beyond the Masterplan area, including the Remarkables Ski Area.	Remarkables Park Masterplan; Active Travel Network; High Capacity Public Transport; QAC Masterplan.	Short term	Remarkables Park Ltd	x		x	x		x

Action	Precinct	Status	Type	Description	Dependencies	Timeframe	Responsibilities	MPO1	MPO2	MPO3	MPO4	MPO5	MPO6
Remarkables Park Masterplan	Remarkables Park	Existing - redevelop	Planning + strategy	A plan developed with key stakeholders that further investigates integration of Remarkables Park Masterplan, including aligning the proposed gondola and Quayside jet boat ferry services with the wider transport network; develop remaining masterplan areas in a combination of intensive mixed uses at higher residential densities supported by urban parks and revegetated esplanade reserves; land use capacity, including potential for residential infill; establishment of an active travel bridge crossing (maintaining potential to add an additional segregated public transport bridge); redevelopment of the Zoological Gardens; and creation of a positive precinct character.	Transport Business Cases; QAC Masterplan; Remarkables Park Masterplan	Short term	Remarkables Park Ltd	x		x		x	x
Te Kirikiri/Frankton Gardens	Remarkables Park	Existing - redevelop	Public realm	Redevelop the Zoological Gardens into a high amenity Frankton Gardens and closely coordinate bridge landings and development interfaces with it.	Parks and Reserve Development and Management Plans; Active Travel Network; Remarkables Park Masterplan.	Medium term	QLDC - Community Services	x			x	x	x
Future residential infill south of Frankton urban area	Remarkables Park	Existing - redevelop	Land use	Increasing density in the existing neighbourhood west of Remarkables Park provides more housing typologies and availability.	Zoning provision, incentive for existing landowners to subdivide/develop	Long term	Private sector + QLDC	x			x	x	x
Five Mile Corridor Precinct Plan	Five Mile Corridor	Proposed (new)	Planning + strategy	A plan developed with key stakeholders that further investigates the potential design integration of the urban arrival experience; urban arterial to support a slower speed environment, crossings and public transport; urban form relationships, including TODs at key nodes; extension of the existing retail high street approach along the urban corridor, including sleeving of existing larger format retail stores; bulk and location of buildings for urban amenity and visual connections to natural landscape; potential relocation of power substations and transmission line (subject to investigations); north Glenda Drive regeneration; land use capacity; incorporation of urban parks and civic spaces; active travel linkages from Frankton Flats to the enhanced Kimiākau / Shotover Delta; protection of the freight link along Hawthorne Drive; and creation of a positive precinct character.	Transport Business Cases; QEC Masterplan	High Priority/Short term	Way To Go	x	x	x	x	x	x
Hawthorne Drive commercial	Five Mile Corridor	Proposed (new)	Land use	Commercial developments lining Hawthorne Drive to provide local employment; support urban centres and public transport; and manage potential reverse sensitivity of freight vehicle access to and from the industrial activity zones.		Short term	Private sector			x	x		
Five Mile Shopping Centre and Queenstown Central Eastern Extension	Five Mile Corridor	Proposed (new)	Land use	Extend Small to Medium Retail and Mixed Use development into existing SH6 setback to establish the Five Mile Urban Corridor. Provide active frontages onto the urban arterial, while wrapping existing Larger	Five Mile Urban Corridor; District Plan Review.	Short term	Private sector		x	x	x		
Industrial Zone Consolidation	Five Mile Corridor	Existing - redevelop	Land use	Industrial activities to be consolidated within the Airport noise contours and segregated from intensive land uses with transition uses between them to mitigate potential adverse effects, such as noise, traffic and visual. Consideration is also required for additional industrial areas outside Masterplan area.	QAC Masterplan; Hawthorne Drive Freight Route;	Short term	QLDC - Planning & Development			x	x		x
Five Mile Urban Corridor	Five Mile Corridor	Existing - redevelop	Public realm	Improving the SH6 gateway experience, strengthening urban form and changing to a slower speed urban arterial along the Frankton-Ladies Mile stretch of SH6.	Active Travel Network; High Capacity Public Transport; District Plan Review; Bulk and Location Study;	Short term	Way To Go		x	x	x		x
Resource Recovery Centre Relocation	Five Mile Corridor	Existing - relocating	Environmental	Decommission of the current resource recovery centre on Glenda Drive and relocate to Kimiākau Community Eco Park on Kimiākau / Shotover Delta to shift infrastructure towards the edge of the Masterplan area to reduce current constraints and better accommodate future urban development. Retain existing site for community use, such as an urban park.	Kimiākau Community Eco Park; Kimiākau / Shotover Delta District Park;	Short term	QLDC - Property & Infrastructure	x				x	
Mixed use transition zone	Five Mile Corridor	Proposed (new)	Land use	A band of mixed-use land manage the interface between industrial and commercial / residential areas to mitigate potential adverse effects, such as noise, traffic and visual.	District Plan Review	Medium term	QLDC - Planning & Development			x			x
Glenda Drive North Regeneration	Five Mile Corridor	Proposed (new)	Land use	Redeveloping larger sites of the northern Glenda Drive industrial area for residential living to strengthening the relationship between high capacity public transport corridors and more intensive land use activities.	Kimiākau / Shotover Delta Enhancements; Five Mile Urban Corridor; Transmission Lines Substation;	Long term	Private sector + QLDC				x		x

Action	Precinct	Status	Type	Description	Dependencies	Timeframe	Responsibilities	MPO1	MPO2	MPO3	MPO4	MPO5	MPO6
QEC Masterplan and Implementation	Frankton Village and Queenstown Event Centre	Existing - redevelop	Public realm	Expand and intensify recreational and community facilities in association with the QEC Recreation Masterplan and the relocation of Frankton Golf Course.	QEC Masterplan; Relocation of Frankton Golf Course; Transport Interchange; Emergency Precinct; Active Travel Network.	High Priority/Short term	QLDC - Community Services		x		x	x	x
Frankton Beach / Domain Enhancement	Frankton Village and Queenstown Event Centre	Existing - redevelop	Public realm	Enhancement of Frankton Beach and Domain as a high-quality informal recreation destination, primarily for local residents. Coordinate proposals with Frankton Road enhancements, Frankton Marina and Queenstown Airport flightpath constraints.	Parks and Reserve Development and Management Plans; Frankton Campground and Stewart Street Extension; Lake Link; Active Travel Network	Short term	QLDC - Community Services	x				x	
Community Hub	Frankton Village and Queenstown Event Centre	Proposed (new)	Public realm	Community facilities building in a central and easily accessible location that provides co-working space and is dedicated to the success of not for profit, social enterprise and charitable organisations. Investigate potential co-locate with an purpose-built entertainment venue.	QEC Masterplan; Relocation of Frankton Golf Course; Transport Interchange;	Short term	QLDC - Community Services		x		x		x
Frankton Campground Redevelopment and Stewart St extension	Frankton Village and Queenstown Event Centre	Existing - redevelop	Public realm	Redevelopment of the Frankton Campground to provide more affordable visitor accommodation options and to better integrate this semi-private activity into the wider green and blue open space network. This includes removing the lakeside accessway and establishing a more direct active travel link from Frankton Village to Frankton Track via a Stewart St extension.	Frankton Beach / Domain Enhancement; Active Travel Network.	Short term	QLDC - Community Services + QLDC - Property & Infrastructure	x		x	x	x	
Frankton Village Precinct Plan	Frankton Village and Queenstown Event Centre	Proposed (new)	Planning + strategy	A plan developed with key stakeholders that further investigates relocation of Frankton Golf Course; provision of a transport interchange with associate civic space; TOD with a community and entertainment focus; expanding and intensifying recreational and community facilities at QEC; establishing an Emergency Precinct (e.g. Fire and Emergency, Ambulance, Police, Air Rescue, Civil Defence) adjacent to the airport; direct active travel and visual links between QEC and the lake; redevelopment of Frankton Campground; enhancement of Frankton Beach and Domain; land use capacity, including potential for residential infill; and creation of a positive precinct character.	QAC Masterplan; Frankton Campground redevelopment proposals, F2Q Business Case.	Short term	QLDC - Community Services + Way to Go	x	x	x	x	x	x
Arranmore/McBride Farm heritage precinct	Frankton Village and Queenstown Event Centre	Proposed (new)	Behavioural/education	Adaptive reuse of heritage buildings to create a functional Heritage Precinct, recognising the pastoral farming history of the Masterplan area.	QEC and QAC Masterplans;	Short term	Queenstown Airport Corporation + QLDC - Community Services				x		x
Public Transport Interchange	Frankton Village and Queenstown Event Centre	Proposed (new)	Essential services	Situated within/adjacent the QEC Masterplan area provides a central location to Frankton Village and helping to promote public transport and reduce car dependency. Relies on degazetting of Reserve status.	Relocation of Frankton Golf Centre; QEC Masterplan; High Capacity Public Transport;	Short term	Way To Go		x	x	x	x	
Potential Arrow Water Race trail to Frankton Marina with signalised crossing	Frankton Village and Queenstown Event Centre	Proposed (new)	Behavioural/education	Active travel route linking existing trails from the Kimiākau / Shotover through to the current Frankton Marina, with provision for safe pedestrian crossing over SH6 to enhance the interium solution under the approved Wakatipu Active Travel Network SSBC.	Funding; feasibility of pedestrian crossing over SH6 at this location	Medium term	Way To Go	x	x	x		x	
Emergency Precinct	Frankton Village and Queenstown Event Centre	Existing - relocating	Essential services	Relocating emergency services (e.g. Fire & Emergency, Police, Ambulance, Civil Defence, Airport Fire Rescue) adjacent to QAC and within optimal response times.	Frankton Golf Course Relocation; QEC and QAC Masterplans.	Medium term	Way To Go + Emergency Services				x		x
Frankton Village Redevelopment and Extension	Frankton Village and Queenstown Event Centre	Existing - redevelop	Land use	Redeveloping and extending Frankton Village to form a more cohesive and defined centre to support local community, Transport Interchange and Frankton Beach / Domain.	Transport Business Cases; Transport Interchange; District Plan Review	Medium term	Way To Go + QLDC - Planning and Development	x	x		x		x
Kimiākau / Shotover Delta Precinct Plan	Kimiākau / Shotover Delta	Proposed (new)	Planning + strategy	A plan developed with key stakeholders that further investigates the enhancement of the natural gateway from the east and by air; creation of a new District Park that provides space for informal recreation and visual amenity; repurposing of the oxidation ponds into revegetated constructed wetlands; upgrading of the active travel routes along the Delta; revegetation; potential to accommodate the relocation of the Frankton Golf Course; and creation of a positive precinct character.	Kimiākau Community Eco Park; Quail Rise Precinct Plan	High Priority/Short term	QLDC - Community Services + QLDC - Property & Infrastructure	x		x		x	x
Kimiākau Community Eco Park	Kimiākau / Shotover Delta	Proposed (new)	Essential services	The zero waste Eco Park will comprise of a Community Environmental Learning Park; Re-sell Store; Resource Recovery Park; Recycling Processing Facility; Waste Transfer Facility that complement the existing and proposed upgrades to the Wastewater Treatment Facility.	Oxidation Pond Remediation;	High Priority/Short term	QLDC - Property & Infrastructure			x		x	

Action	Precinct	Status	Type	Description	Dependencies	Timeframe	Responsibilities	MPO1	MPO2	MPO3	MPO4	MPO5	MPO6
Frankton Golf Centre Relocation	Kimiākau / Shotover Delta	Existing - relocating	Public realm	Potential relocation of golf course adjacent to the Kawarau River, in conjunction with water sensitive design approaches and available clean fill for land contouring.	QEC and QAC Masterplans; Kimiākau / Shotover Delta Enhancements; Kimiākau Community Eco Park;	High Priority/Short term	QLDC - Community Services + QLDC - Property & Infrastructure	x	x		x	x	
Decommissioning Oxidation ponds	Kimiākau / Shotover Delta	Existing - relocating	Essential services	Repurpose remaining oxidation ponds into revegetated constructed wetlands to complement braided river environment and support ngā rauemi (resource harvesting areas), while maintaining some resilience to protect the long term quality of the Kimiākau / Shotover River	Kimiākau Community Eco Park; Kimiākau / Shotover Delta District Park	Short term	QLDC - Property & Infrastructure	x	x	x		x	
Wastewater treatment plant expansion	Kimiākau / Shotover Delta	Proposed (new)	Essential services	Continuation of Project Pure to expand the existing wastewater treatment facility on the Kimiākau / Shotover Delta and decommission the oxidation ponds	Kimiākau Community Eco Park; Kimiākau / Shotover Delta District Park	Medium term	QLDC - Property & Infrastructure	x				x	
Kimiākau / Shotover Delta District Park	Kimiākau / Shotover Delta	Proposed (new)	Environmental	Creation of a new District Park that provides space for informal recreation and visual relief to support the intensification of Frankton Flats and other growth within the Wakatipu Basin. Activities could include nature walks, dog parks, pump tracks, etc.	Oxidation Ponds Remediation; Kimiākau Community Eco Park; QAC Masterplan;	Medium term	QLDC - Property & Infrastructure	x	x	x		x	x
Ngā rauemi (resource harvesting areas)	Kimiākau / Shotover Delta	Proposed (new)	Environmental	Provision of wetlands for ngā rauemi (resource harvesting areas) within the remediated Kimiākau / Shotover Delta. This provides for Kāi Tahu cultural values of environmental health; access to resource gathering areas; and promotes guardianship / stewardship from across the community.	Oxidation Pond Remediation; Kimiākau / Shotover Delta District Park; Kāi Tahu Cultural Strategy	Medium term	Community	x	x	x	x	x	x
Crosswind Runway Removal	Queenstown Airport and Ōterotu / Kawarau Falls	Proposed (new)	Land use	Removal of the cross wind runway would result in the reduction of the airport noise contours and height restrictions, allowing more intensive land use options along Five Mile Urban Corridor and Remarkables Park.	QAC Masterplan;	High Priority/Short term	Queenstown Airport Corporation + QLDC - Community Services				x		x
QAC Masterplan and Redevelopment	Queenstown Airport and Ōterotu / Kawarau Falls	Existing - redevelop	Land use	Accommodate Queenstown Airport growth and improve both airside and landside facilities as a key gateway. Coordinate multi-modal transport connections to improve access to higher capacity public transport connections.	Lake Link; High Capacity Public Transport; Regional and Tourist Coach Hub; Emergency Precinct	Short term	Queenstown Airport Corporation + QLDC - Community Services		x	x			
Ōterotu / Kawarau Falls Heritage Waterfront	Queenstown Airport and Ōterotu / Kawarau Falls	Proposed (new)	Public realm	Enhance the esplanade reserve along Ōterotu / Kawarau Falls to recognise opportunities for revegetation and stronger cultural heritage associations that tie in with the quality of treatments at the Kawarau Falls development opposite	Parks and Reserves Development and Management Plans; Jetty Facilities; Frankton Beach / Domain; Native Revegetation along Esplanade Reserves / Strips	Short term	QLDC - Community Services	x	x		x	x	x
Lakes District Hospital Relocation	Queenstown Airport and Ōterotu / Kawarau Falls	Existing - relocating	Essential services	Investigate potential long term relocation options for Lakes District Hospital outside the Airport noise contours.	QAC Masterplan; Lake Link; Emergency Services Precinct.	Short term	Southern District Health Board	x		x			
Ferry Facilities	Queenstown Airport and Ōterotu / Kawarau Falls	Proposed (new)	Essential services	Facilities to support potential ferry services from a proposed jetty at Ōterotu / Kawarau Falls and Quayside, helping to minimise traffic on Frankton Road and providing an enhanced visitor experience in association with the proposed Lake Link.	Transport Business Cases; QAC Masterplan; Lake Link; Parks and Reserve Development and Management Plans; Active Travel Network	Short term	Way To Go	x	x	x	x		
Regional Coach and Tourist Hub	Queenstown Airport and Ōterotu / Kawarau Falls	Existing - relocating	Land use	A hub proposed within the vicinity of Queenstown Airport to service locals through public transport transfers as well as visitors and tourist operators with easy links to the wider district to help reduce reliance on self-drive cars.	QAC Masterplan;	Short term	Way To Go + QLDC - Planning & Development + Queenstown Airport Corporation		x	x			
Queenstown Airport and Ōterotu / Kawarau Falls Precinct Plan	Queenstown Airport and Ōterotu / Kawarau Falls	Proposed (new)	Planning + strategy	A plan developed with key stakeholders that further investigates the potential design integration of the urban arrival experience, particularly the Lake Link; multi-modal connections to the Airport terminal, including segregation of public transport between transport interchange and relationship to potential ferry services; establishment of a Regional and Tourist Coach Hub; road connections between Kawarau Road and Hawthorne Drive, via Humphrey St; investigate potential long term relocation options for Lakes District Hospital; esplanade reserve along Ōterotu / Kawarau Falls; land use capacity, including potential of infill; incorporation of urban parks and civic spaces; and creation of a positive precinct character.	Transport Business Cases; QAC Masterplan	Short term	Way To Go + Queenstown Airport Corporation	x	x	x	x	x	x
Lake Link	Queenstown Airport and Ōterotu / Kawarau Falls	Proposed (new)	Public realm	An Active Travel bridge over SH6 (Kawarau Road), providing a physical and visual connection between Frankton Flats and Lake Wakatipu for the community and visitors.	QAC Masterplan, Ferry Facilities; Humphry Road Extension.	Medium term	Way To Go	x	x	x	x	x	x
Humphreys Road Extension	Queenstown Airport and Ōterotu / Kawarau Falls	Proposed (new)	Public realm	Strengthen road connections between Kawarau Road and Hawthorne Drive, via Humphrey St, to reduce public transport and active travel conflicts and provide a more direct link from SH6 to Queenstown Airport, Remarkables Park and Wakatipu High School	Transport Business Cases; Emergency Precinct; QAC Masterplan.	Medium term	Way To Go			x	x		

6. APPENDIX

6.1 SUMMARY OF ENGAGEMENT THEMES AND MASTERPLAN RESPONSE

Below is a summary of the key themes that emerged from the public engagement and how the draft Masterplan seeks to respond to them.

GENERAL

Feedback summary

That the masterplan is for the residents only and not for the business and commercial interests.

Masterplan Response

In December 2018, a Memorandum of Understanding was signed between QLDC, NZTA and ORC to work together to provide integrated forward thinking solutions to create a safe and well-connected transport network for the Queenstown Lakes District. The 'Way to Go' (W2G) partnership recognises that all three agencies have an important role to play in driving and delivering change through collectively leading strategic transport planning and delivery, including integration of transport with land use and business cases.

QLDC have engaged with a broad range of stakeholders, including landowners, businesses, residents and interest groups in the formulation of the Masterplan. QLDC will continue to engage and work with members of the community including businesses and residents to achieve the outcomes sought in the Masterplan. We acknowledge that the Masterplan focuses on strategic issues and that we will need to address specific opportunities and issues in the detailed planning phases for the precincts.

SH6 URBAN ARTERIAL

Feedback summary

There was concern with respect to the draft plan to move SH6 to an urban arterial road. It is understood and accepted by the group that the self-drive for both visitors and locals is not sustainable and the plan is dependent on a significant portion moving from private cars to public or active transport to move around the region.

Masterplan Response

Visual amenity and the connection to the natural and surrounding environment are fundamental components of the Masterplan and vision for Te Kirikiri/Frankton. While the land use intensification is important to increase the residential and commercial capacity within Te Kirikiri/Frankton and create an improved sense of arrival into Te Kirikiri/Frankton, we agree that there will be a need to balance this alongside ensuring that the views towards the Remarkables range are not compromised and remain a significant feature of both the arrival experience and existing outlook. Further work will need to be undertaken in the next phases of the project to investigate bulk, location and height for any built form along SH6 to ensure an appropriate outcome is achieved.

WALKING AND CYCLING CONNECTIONS ON SH6

Feedback summary

There was concern from a few stakeholders regarding the crossings on SH6.

Masterplan Response

Various options for safe pedestrian and cycling crossings of roads including SH6 are being investigated including overbridges, underpasses and at -grade crossings.

HOSPITAL RELOCATION

Feedback summary

Generally supportive of relocating the Lakes District Hospital in the long term but needing significant planning and understanding of what a new facility would be and its function in the region's health facilities and services matrix.

Masterplan Response

The Masterplan identifies the potential relocation or reconfiguration of the hospital. QLDC seeks to undertake further engagement with Southern DHB and other relevant stakeholders to identify the viability and options of providing a connection for people to walk and cycle between the Lake, the Queenstown Airport, local schools, residential areas and amenities such as Remarkable Park. This will need to be coordinated with the Emergency Services Precinct.

LAND USE TYPOLOGIES

Feedback summary

Not enough detail on the Masterplan regarding specific land uses.

Masterplan Response

Many of the proposed developments in the Masterplan are for mixed-use developments which can accommodate a range of activities. QLDC through its planning functions will continue to work with the businesses, landowners and developers to meet the needs of the business community.

SELF DRIVE AND RENTAL CARS

Feedback summary

Need for further information that details self-drive, rental cars and transportion to public transport etc.

Masterplan Response

QLDC, Otago Regional Council and the NZ Transport Agency will, following the Masterplan, continue to work with the tourism and business community to improve transport options, access to information and services to support a reduction in self-drive tourism within the Wakatipu Basin.

LARGE FORMAT RETAIL LAND USE

Feedback summary

Need to link Masterplan and District Plan

Masterplan Response

The Masterplan takes a much longer and holistic view of the Te Kirikiri/Frankton urban area, beyond the ambit of the current District Plan. From this perspective, it has deliberately not sought to be constrained by current zone provisions as that would, in some instances, fail to deliver community and design aspirations for Te Kirikiri/Frankton as a whole. The purpose of the Masterplan is to establish a high level spatial framework that does not extend to the articulation of individual rules under future changes to the District Plan to might distinguish between industrial, retail and trade-related retail activities. The design rationale for identification of an area designed to accommodate Lake Front Retail is to enable a mixture of retail formats to be integrated into Te Kirikiri/Frankton in a location and fashion that is accessible, complementary to surrounding uses and in a way that enhances the urban environment.

SPORT AND REC AT KIMIĀKAU/SHOTOVER DELTA

Feedback summary

Need to investigate feasibility of integrating sport and recreation into the Kimiākau/Shotover Delta, particularly with regard to the adjacent activities such as the Queenstown Airport

Masterplan Response

QLDC will undertake additional investigations into the suitability of the Kimiākau/Shotover Delta for recreation activities as well as sporting facilities including a golf course and other sports.

POWER SUPPLY

Feedback summary

There is a significant amount of power infrastructure in Te Kirikiri/Frankton, in particular it is located to the north of the SH6 roundabout and Grant Rd intersection. This infrastructure is limiting the development opportunities to the north of SH6 for residential and commercial opportunities.

Masterplan Response

QLDC acknowledges that there is significant power supply and reticulation infrastructure within Te Kirikiri/Frankton that will require further investigation to achieve the outcomes sought from the Te Kirikiri/Frankton Masterplan. The relocation of a power infrastructure is still yet to be investigated. The relocation was focused on unlocking the potential of land north of SH6, while providing capacity to meet the growth of the area. We intend to work closely with Transpower, Aurora and PowerNet in the short term to further investigate these options. QLDC is to coordinate a working group with Transpower, Aurora and PowerNet to investigate the economic feasibility of relocation of power infrastructure from current location in Te Kirikiri/Frankton (near the intersection of SH6 and Grant Road).

URBAN PARKS

Feedback summary

Location of urban parks with respect to private land holdings.

Masterplan Response

The provision of urban parks and more broadly a network of accessible and connected public open space across the Te Kirikiri/Frankton urban area was a strong desire amongst stakeholders and the community. While the exact nature of the proposed urban parks is yet to be established, it is expected that they will be appropriately designed to reflect the needs and activities of their respective locations. It is acknowledged that the recreational and amenity benefits of public open spaces are likely to be more significant in mixed use and residential areas, however, it is important to provide access to open space for the working population within industrial and commercial areas. The inclusion of these public open space strengthens the environmental qualities the public realm, as well as providing an opportunity to create a stronger more unified character throughout the masterplan area.

LUCAS PLACE

Feedback summary

The role of Western Access/ Lucas Place as a gateway to Remarkables Town Centre

Masterplan Response

To achieve a number of outcomes including the development of the Lake Link for active modes between the Lake, Queenstown Airport and Remarkable Park there is a need to re-align Lucas Place. This connection will continue to service the Queenstown Airport, Remarkables Park and link to SH6 to the south of the new active mode link.

SPORTING AND RECREATION NEEDS

Feedback summary

General and specific feedback on growth and sport and recreational facilities and concerns around the capacity of the QEC site to deliver future needs for a growing population.

Masterplan Response

QLDC is investigating additional sporting needs for the community including the provision of indoor, outdoor and passive recreation facilities and infrastructure to support the current and future population.

EMERGENCY SERVICES PRECINCT

Feedback summary

Development of an emergency services precinct.

Masterplan Response

The Masterplan has identified the opportunity to develop an emergency services precinct within Te Kirikiri/Frankton to centrally service the Wakatipu Basin and communities further afield. The scale and location of the emergency services precinct is indicative and further investigations will be required to identify the footprint, location and feasibility of co-locating these providers.

QUEENSTOWN AIRPORT

Feedback summary

The long term role of Queenstown Airport and it's integration into the wider transport network.

Masterplan Response

Queenstown Airport, located within Te Kirikiri/Frankton, is a domestic and international Queenstown Airport that has operated on this site since 1935. It is estimated that more than a third of all arrivals to Queenstown are via the Queenstown Airport and is a key contributor to the economic and commercial outcomes for the region. The Queenstown Airport has more than 60 businesses and 700 people providing a broad range of services.

The Queenstown Airport is owned and operated by Queenstown Airport Corporation and has been involved in the development of this Masterplan. It should also be noted that the Queenstown Airport is a lifeline utility under the Civil Defence Emergency Management Act 2002.

The Masterplan seeks to improve connectivity to, from and around the Queenstown Airport for a variety of transport users, including school students, workers at the Queenstown Airport and across Te Kirikiri/Frankton as well as for visitors. QLDC will continue to work with Queenstown Airport Corporation in the implementation of the Masterplan including for precincts such as the Kimiākau/Shotover Delta, Arranmore / McBride Farm Heritage area, Emergency Precinct and Lake Link.

SUSTAINABILITY

Feedback summary

The sustainable management of growth with respect to the local community and the environment.

Masterplan Response

The Masterplan also seeks to improve air and water quality through infrastructure and services that allow people to walk and cycle more, make shorter journeys for their daily activities and needs such as getting to school, work or recreational activities.

ASSUMPTIONS

Feedback summary

How does the masterplan respond to growth etc, assuming the Queenstown Airport remains in situ?

Masterplan Response

QLDC recognises that the Masterplan will need to evolve over time to reflect major changes and assumptions such as tourism and population growth. The Masterplan and Integrated Transport Programme Business Case are based on the assumptions outlined below:

- Queenstown Airport is remaining, including estimated passengers per annum and resulting noise boundaries
- Continued demand for all land use typologies
- Any proposed new public transport routes, hubs, bus stops etc shown in the Masterplan and Integrated Transport Programme Business Case are subject to further investigation and consultation processes.
- At this time, it is not intended to extend the Masterplan boundaries. QLDC is investigating the needs to support a growing population across the Wakatipu Basin through the Spatial Plan.
- The cross wind runway might be removed in the medium term, thus enabling intensification along SH6 which was limited by some of the noise and height implications.

Appendix B - Investment Logic Map

Frankton Masterplan and Integrated Programme Business Case

INVESTMENT LOGIC MAP
Programme

PROBLEM ▶ **BENEFIT**

The current transport system favours travel by private vehicle that leads to severance and adversely affects inclusive access, safety, environmental sustainability, and a sense of place for Frankton.
60%

Current and future land use patterns coupled with infrastructure constraints and significant growth leads to congestion and increasing travel times for all road users
40%

Access to improved transport choices for people of all ages and abilities
40%
KPI 1: Frankton households within 800m of high frequency and convenient travel choices (access)
KPI 2: Uptake of active modes and public transport (use of multi-modal transport)
KPI 3: Connected network for active modes (active mode network)

Te Kirikiri Frankton is a safe and welcoming gateway to Queenstown and the region, hosting a unified, bustling community of businesses, residents and visitors
35%
KPI 1: Community accessibility (severance)
KPI 2: Air and water quality (environment)
KPI 3: Quality of life (liveability)
KPI 4: Visitor gateway (attractiveness)
KPI 5: Reduce deaths and serious injury crashes (safe transport choices)
KPI 6: Reduce number of active mode crashes in study area (safe transport choices)
KPI 7: Improve community perception of safety (safety perception)

A transport network and system that is reliable and meets the access and movement needs of the community
25%
KPI 1: Average travel times at peak times between key locations (travel time reliability)
KPI 2: Improve the attractiveness of public transport by reducing travel time difference between public transport and general traffic (travel time)
KPI 3: Level of Service rating for active modes network (comfort)

* MoT outcomes framework

Appendix C - Case for Change

List of stakeholders

Stakeholders	
Queenstown Lakes District Council	Otago Regional Council
NZ Transport Agency	Queenstown Chamber of Commerce
Frankton Community Association	Queenstown Airport Corporation
Southern District Health Board	Southland Automobile Association
Destination Queenstown	NZ Ski Ltd
Remarkables Park Ltd	Trails Trust
Queenstown Central	Wakatipu High School
Te Ao Marama Inc.	Aukaha (Ngai Tahu)
Bid Foods	

Key land use and trip generators

Key Land Use Sites in and around Frankton

Land Use	Description
Queenstown Events Centre	The Queenstown Events Centre is a multi-purpose indoor sports and events complex that has a capacity of 20,000 people[52]. It also offers a range of function and meeting room facilities. It and the surrounding sports and recreation fields are currently part of a district wide demand analysis and masterplan development. Improvements to John Davies Oval has seen the return of high profile events, with several ICC Under-19 world cup cricket matches held in Jan/Feb 2018 and the return of international cricket signalled[53].
Queenstown Airport	A key land use and trip generator in Frankton is the Queenstown Airport situated on Sir Henry Wigley Drive, accessed via State Highway 6 and Lucas Place. Queenstown Airport is the fourth

[52] VenueHire 2018, *Queenstown Venues and Halls for Hire, Queenstown Events Centre Oval,* retrieved 20 Dec 2018, from https://www.venuehire.co.nz/queenstown-venues-1.htm

[53] Rationale July 2018, *Frankton Masterplan – Draft Establishment Report, Sports, community and cultural facilities, Pp13,* Queenstown Lakes District Council.

Land Use	Description
	busiest airport in New Zealand by passenger numbers, receiving 7,698 aircraft landings in 2017[54]. It receives direct scheduled services from New Zealand's main metropolitan airports of Auckland, Wellington and Christchurch, as well as from the Australian cities of Brisbane, Gold Coast, Sydney and Melbourne. Auckland and Sydney airports are the major international hub airports for long-haul visitors to the region[55]. Queenstown Airport (QAC) has experienced growth of more than 10% per annum in recent years with almost 2 million passenger per year in 2018 and expected to reach its current approved capacity of approximately 2.2 million passengers within the next few years. Demand forecasting commissioned by Queenstown Airport predicts passenger movements in the region could reach 7.1 million by 2045[56] for the Central Otago region. Public consultation was undertaken in 2018 with regards to development options and increasing the passenger capacity of the airport to meet growing demand. Further engagement is being undertaken during 2019 and 2020 by QAC prior to confirming its passenger projections for future years. There are a number of complimentary land use activities that surround the south-west boundary of Queenstown Airport related primarily to tourist operations. These include helicopter and light aircraft operations that provide scenic tours within the region and rental car offices.
Remarkables Park	Remarkables Park Town Centre is situated adjacent (south) to the Queenstown Airport and consists of retail stores, service organisations, a medical centre and pharmacy and a supermarket. Remarkables Park Town Centre has provision of around 800 carparks.[57] Remarkable Park also includes recent developments between the town centre and Wakatipu High School, the entertainment precinct adjacent to the airport as well as the Quayside Resort area which is the next major precinct to be developed and proposed to include more than 10 hotels and a conference centre.
Five Mile Centre	The Five Mile Centre is a shopping centre that is accessed via Grant Road in Frankton adjacent to SH6, the Queenstown Event Centre and Queenstown Central. It contains a number of retail stores and service providers, including a bank, supermarket, health services and professional service providers. It provides around 1,000 carparks[58].
Queenstown Central	Queenstown Central includes a retail mall with over 40 stores situated on Grant Road (opposite Five Mile) in Frankton. The site contains parking provisions for its customers and tenants within the complex include restaurants, retail stores, a bank, and other service providers.[59]

[54] QAC 2018, '*2013 to 2018 Monthly Scheduled Aircraft Landings,' Queenstown Airport – Landings History,* retrieved 20 Dec 2018, from https://www.queenstownairport.co.nz/assets/documents/ZQN-monthly-landings-2013-to-2018-September.pdf

[55] QAC 9 June 2017, *Queenstown Airport Corporation Ltd Statement of Intent 2018-2020, About Us Pp 1,* Queenstown Airport.

[56] Queenstown Airport, 2018, *'Let's start talking about tomorrow', Master Plan Options,* Queenstown.

[57] Remarkables Park Town Centre 2018, *'About Us' and 'Getting Here', Remarkables Park Town Centre, r*etrieved 20 Dec 2018, from https://www.remarkablesparktowncentre.co.nz/about/ and https://www.remarkablesparktowncentre.co.nz/centre-info/visit/

[58] Five Mile Centre Queenstown 2018, '*Retail Stores', Five Mile Centre,* retrieved 20 Dec 2018, from https://www.fivemilecentre.co.nz/

[59] Queenstown Central, 2019, *'Queenstown Central',* retrieved 29/01/19, from https://queenstowncentral.co.nz/

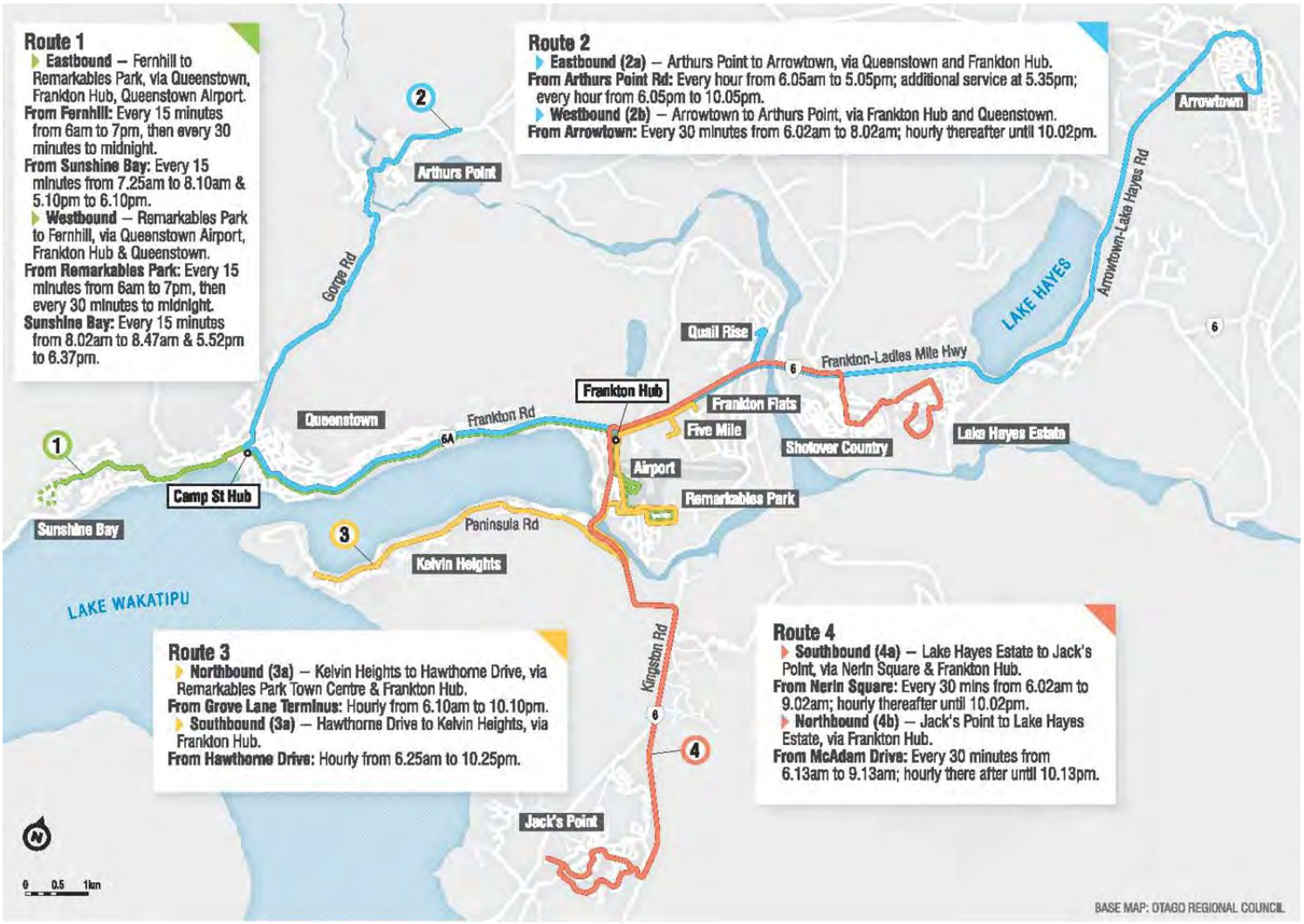
Land Use	Description
	There are also townhouse residential developments currently under construction as well as commercial and 'big box' retail along Hawthorne Drive.
Remarkables Primary School	Remarkables Primary School is situated in Lake Avenue, Frankton. It is a school for Year 1 to Year 8 students[60]. The school currently has a role of 592 students[61].
Wakatipu High School	Wakatipu High School is located on Red Oaks Drive in Frankton, east of Remarkables Park Town Centre. It has a roll of 950 Year 9 to Year 13 students[62].
Lakes District Hospital	Lakes District Hospital is situated in Frankton and services all communities in the Queenstown Lakes District. The hospital has 21 beds, with a mix of maternity, level 2 emergency service that provides assessment and stabilisation, hospital level elderly care and acute medical services provided.
Frankton Light Industrial Area (Shotover Park)	A light industrial area exists in the east of Frankton on Glenda Drive. This area contains hardware retailers and a range of trade services. There are a number of logistics and distribution centres as well as some residential housing along the eastern side of Glenda Drive.

[60] Remarkables Primary School 2018, *Remarkables Primary School – Overview,* retrieved 20 Dec 2018, from http://www.remarkablesprimary.school.nz/Web/938/

[61] Education Counts 2018, *Remarkables Primary School- Student Population,* Ministry of Education, retrieved 20 Dec 2018, from https://www.educationcounts.govt.nz/find-school/school/population/trends?district=&region=&school=6783

[62] Ibid

Existing bus services map



Existing active mode trials map

Residential land use and growth

Quail Rise

Quail Rise is a 200-section residential suburb to the north of Te Kirikiri Frankton and SH6, situated above the western bank of the Shotover River. The subdivision is intended to be 'family-type living' which provides character and community.

Jack's Point

Jack's Point is a 1,200-hectare settlement, 6 kilometres south of Te Kirikiri Frankton on SH6. The resort offers residential homes, an education innovation campus, hotels, office space, hospitality venues and two villages as well as a variety of recreation opportunities and access to public open space and amenities.

Ladies Mile

Ladies Mile is a proposed urban development located northeast of Te Kirikiri Frankton between the Shotover River to the west and Lake Hayes to the northeast. The development potentially could yield nearly 2,000 new homes is to meet demand, with growth projections showing an almost doubling of the number of existing

residential units in Queenstown and Wanaka over the next 30 years. The development is subject to alleviating capacity constraints on the Shotover Bridge[63].

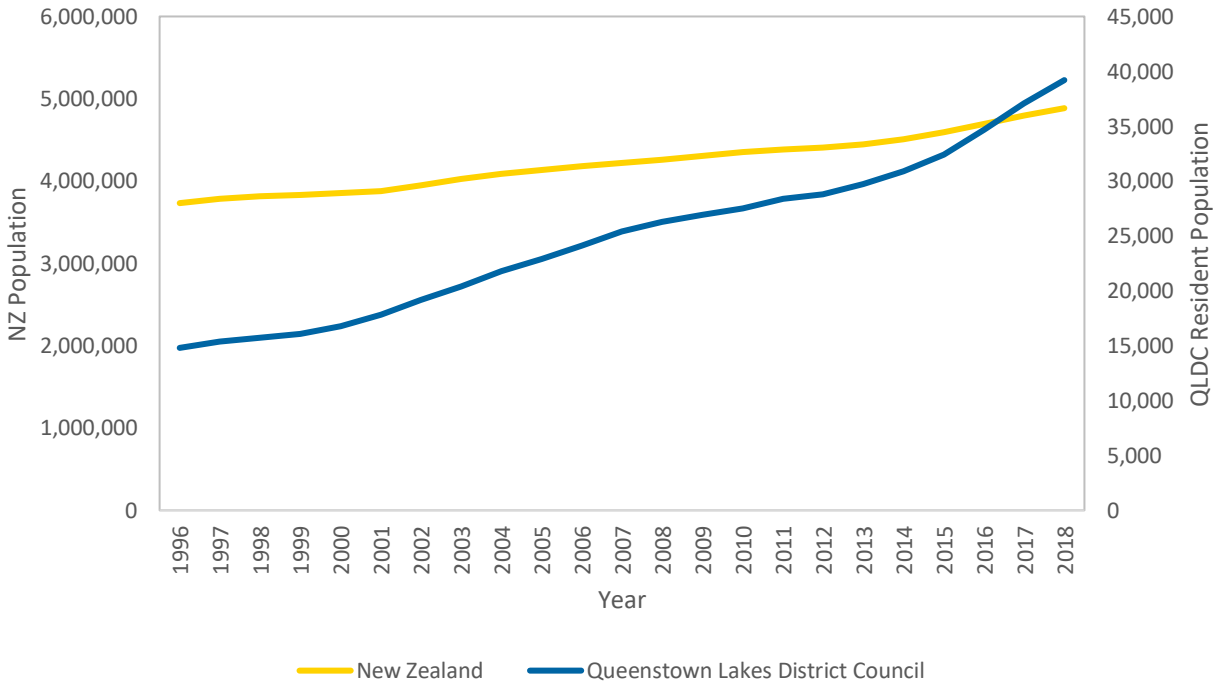
Shotover Country Special Housing Area

Located opposite of the Ladies Mile development, to the south of SH6, the Shotover Country SHA will provide opportunities for predominantly low density living accommodation with a smaller mixture of medium density living, community and educational activities within a central core. The residential neighbourhood aims to provide 800-900 affordable homes close to Queenstown.

Hanleys Farm

Hanleys Farm is a 135 hectare master-planned subdivision situated between Lake Wakatipu, Jack's Point Golf Course and The Remarkables (south of Te Kirikiri Frankton). This residential development will consist of 2,200 homes, a commercial and retail precinct and recreational facilities including parklands, and active mode tracks[64].

Estimated Resident Population in Queenstown-Lakes District and New Zealand, 1996 to 2018[65]



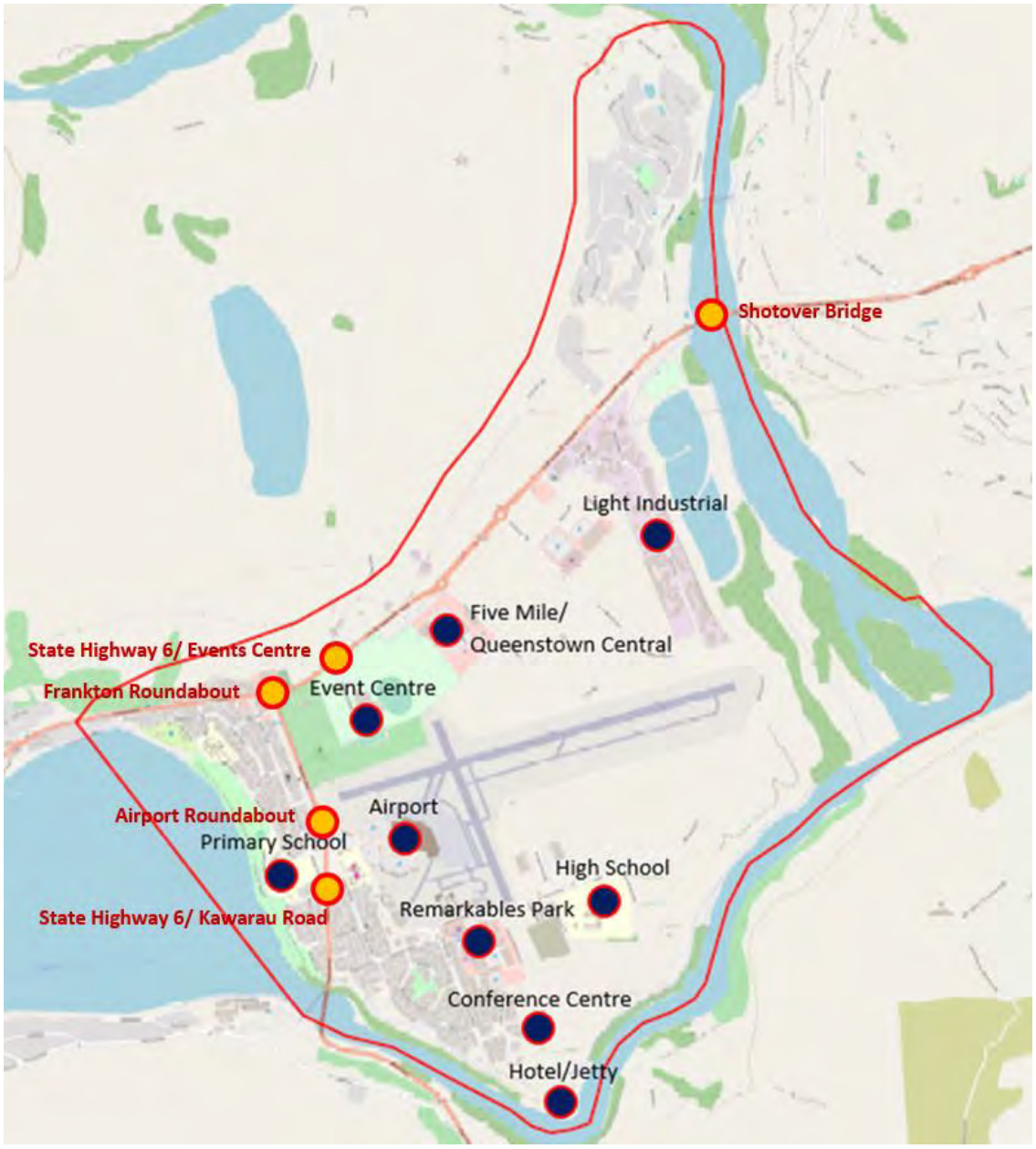
[63] Ministry of Housing and Urban Development 2018, *Housing Infrastructure Fund, Approved Projects,* retrieved 20 Dec 2018, from https://www.hud.govt.nz/urban-development/housing-infrastructure-fund/

[64] Source: https://winton.nz/our-projects/hanleys-farm/?gclid=EAIaIQobChMIqMThip2P4gIVkIBwCh3zowg9EAAYASAAEgLyYPD_BwE

[65] ecoprofile.infometrics.co.nz/queenstown-lakes%2bdistrict/Population/Growth

Conflict points in study area

Frankton Main Conflict Points and Current/ Future Key Land Uses[66]

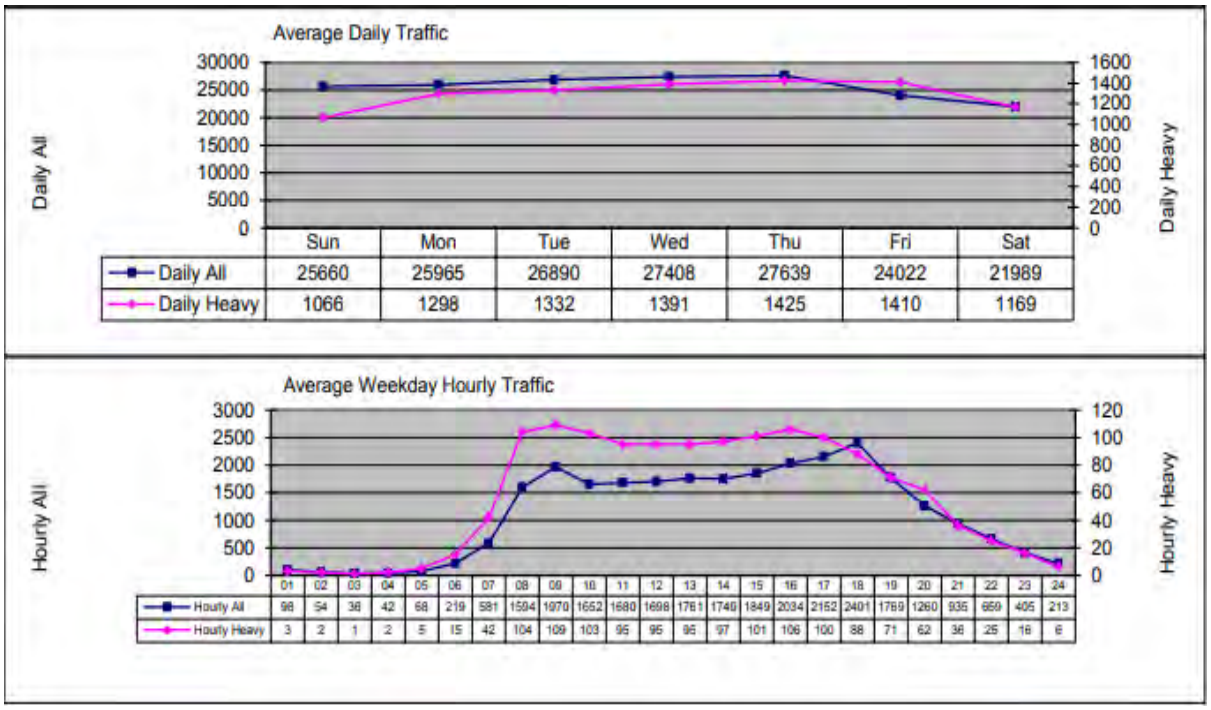


[66] Sourced from Frankton NOF Workshop 28 Nov 2018

Traffic volumes

The data provided in the figure below shows a continuous flow of traffic in both directions on SH6A in the vicinity of Te Kirikiri Frankton, with no clear peaks between 8am and 6pm.

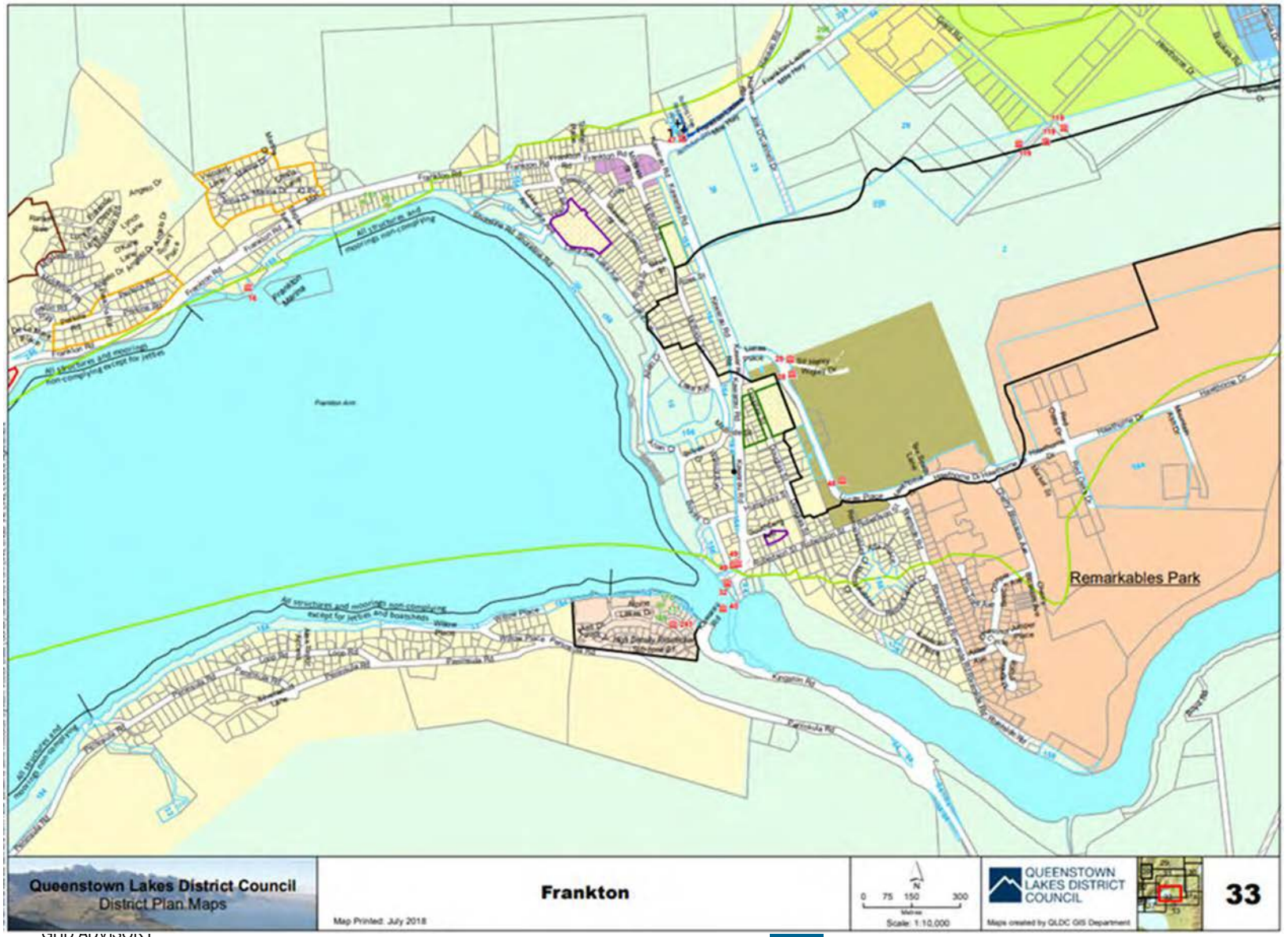
Average Daily and Average Weekday Hourly Traffic: SH6A in Frankton[67]

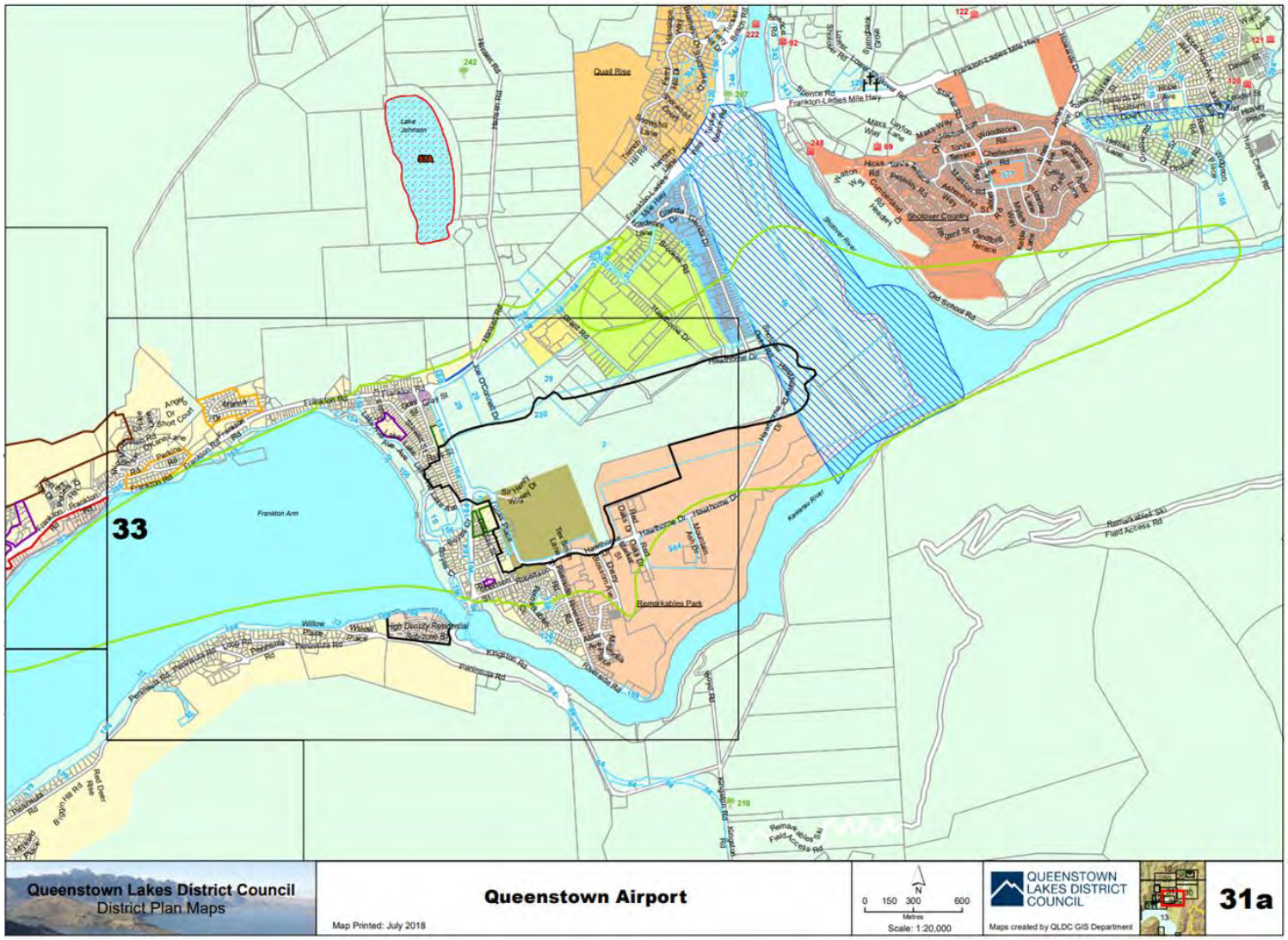


Frankton zoning maps[68]

[67] NZTA 2017- National Telemetry Site Traffic Profile, Telemetry site 90 – FRANKTON. Traffic data sourced from NZ Transport Agency Telemetry site 90 in Frankton on SH6A (560 m west of the BP roundabout).

[68] Queenstown Lakes District Council 2018, District Plan, Frankton Map 33.


Remarkables Park
Queenstown Lakes District Council
District Plan Maps
Frankton
Map Printed: July 2018
0 75 150 300
Metres
Scale: 1:10,000
QUEENSTOWN LAKES DISTRICT COUNCIL
Maps created by QLDC GIS Department
33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Queenstown Lakes District Council
District Plan Maps
Queenstown Airport
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Maps created by QLDC GIS Department
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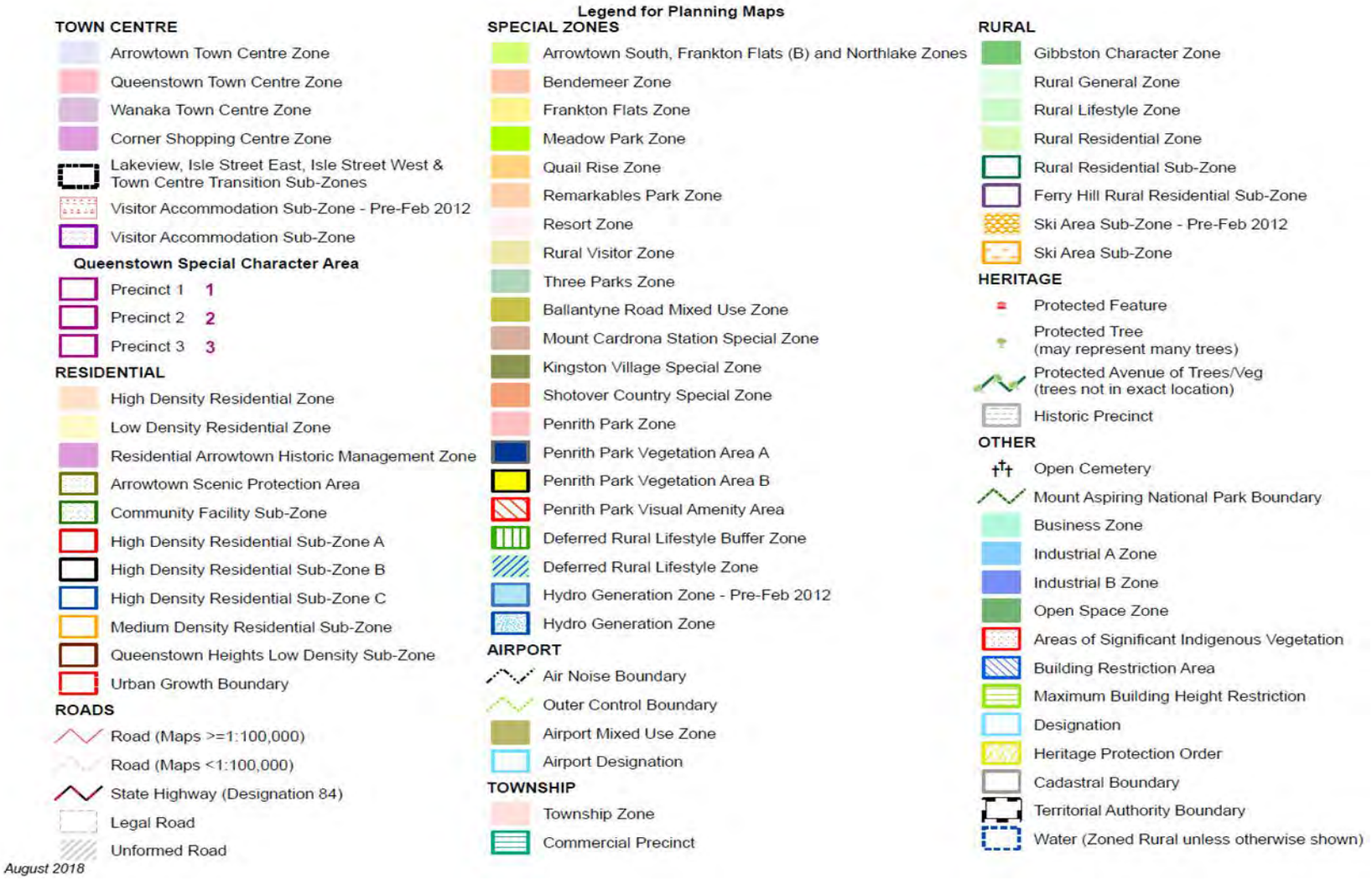

Legend for Planning Maps
TOWN CENTRE
Arrowtown Town Centre Zone
Queenstown Town Centre Zone
Wanaka Town Centre Zone
Corner Shopping Centre Zone
Lakeview, Isle Street East, Isle Street West & Town Centre Transition Sub-Zones
Visitor Accommodation Sub-Zone - Pre-Feb 2012
Visitor Accommodation Sub-Zone
Queenstown Special Character Area
Precinct 1 1
Precinct 2 2
Precinct 3 3
RESIDENTIAL
High Density Residential Zone
Low Density Residential Zone
Residential Arrowtown Historic Management Zone
Arrowtown Scenic Protection Area
Community Facility Sub-Zone
High Density Residential Sub-Zone A
High Density Residential Sub-Zone B
High Density Residential Sub-Zone C
Medium Density Residential Sub-Zone
Queenstown Heights Low Density Sub-Zone
Urban Growth Boundary
ROADS
Road (Maps >=1:100,000)
Road (Maps <1:100,000)
State Highway (Designation 84)
Legal Road
Unformed Road
August 2018
SPECIAL ZONES
Arrowtown South, Frankton Flats (B) and Northlake Zones
Bendemeer Zone
Frankton Flats Zone
Meadow Park Zone
Quail Rise Zone
Remarkables Park Zone
Resort Zone
Rural Visitor Zone
Three Parks Zone
Ballantyne Road Mixed Use Zone
Mount Cardrona Station Special Zone
Kingston Village Special Zone
Shotover Country Special Zone
Penrith Park Zone
Penrith Park Vegetation Area A
Penrith Park Vegetation Area B
Penrith Park Visual Amenity Area
Deferred Rural Lifestyle Buffer Zone
Deferred Rural Lifestyle Zone
Hydro Generation Zone - Pre-Feb 2012
Hydro Generation Zone
AIRPORT
Air Noise Boundary
Outer Control Boundary
Airport Mixed Use Zone
Airport Designation
TOWNSHIP
Township Zone
Commercial Precinct
RURAL
Gibbston Character Zone
Rural General Zone
Rural Lifestyle Zone
Rural Residential Zone
Rural Residential Sub-Zone
Ferry Hill Rural Residential Sub-Zone
Ski Area Sub-Zone - Pre-Feb 2012
Ski Area Sub-Zone
HERITAGE
Protected Feature
Protected Tree (may represent many trees)
Protected Avenue of Trees/Veg (trees not in exact location)
Historic Precinct
OTHER
Open Cemetery
Mount Aspiring National Park Boundary
Business Zone
Industrial A Zone
Industrial B Zone
Open Space Zone
Areas of Significant Indigenous Vegetation
Building Restriction Area
Maximum Building Height Restriction
Designation
Heritage Protection Order
Cadastral Boundary
Territorial Authority Boundary
Water (Zoned Rural unless otherwise shown)

Appendix D – Strategic Context

Strategy	Organisation	Areas of Alignment with Investment Objectives
Government Policy Statement on Land Transport 2018- 21	Central Government	GPS 2018 defines safety and access as key priorities. The objectives of these priority areas are a land transport system that: ▪ Is a safe system, free of death and serious injury ▪ Provides increased access to economic and social opportunities ▪ Enables transport choice and access ▪ Is resilient. Supporting strategic priorities are the environment and value for money
Statement of Intent 2018-22	NZ Transport Agency	All three strategic responses of the Transport Agency's Statement of Intent are reflected in the Frankton ITPBC investment objectives. The strategic responses are: ▪ One connected transport system ▪ People-centred services ▪ Partnerships for prosperity.
Otago Regional Council Long Term Plan 2018 – 2028	Otago Regional Council	The Council acknowledges it's responsibility for implementing public transport provisions. Within the first three years of this LTP, they are planning work that will consider increasing the level and frequency of services, which includes investigating mass transit options for increased passenger transport capacity between Queenstown and Frankton.
Otago Regional Public Transport Plan 2014	Otago Regional Council	The plan states that "[t]he NZTA seeks better value for money from the public transport services and infrastructure in which they invest. They seek growth in patronage and focus on reducing congestion and supporting economic growth and productivity… In particular, State Highway 6 and 6A near Frankton in Queenstown has notable congestion."
Otago Southland Regional Land Transport Plans 2015-2021	Otago Regional Council	The long-term goal set by the Committee for land transport in Otago Southland is to provide accessible transport connections, giving users an appropriate choice of modes, and to gain improved performance from the land transport system, by

Strategy	Organisation	Areas of Alignment with Investment Objectives
		focusing on: road safety, economic growth and productivity, and value for money.
Otago Regional Council Annual Plan 2017 – 2018	Otago Regional Council	The Plan states, our transport activities contribute to the following community outcomes. *The environmental, economic, social, cultural needs of the Otago people are met*.
Queenstown Lakes District Council Annual Plan 2017-18	Queenstown Lakes District Council	The long-term council outcome is to provide high performing infrastructure and services that: meet current and future user needs and are fit for purpose.
Queenstown Lakes District Council 10-Year Plan 2018-28	Queenstown Lakes District Council	The Queenstown Lakes District Council Ten-Year Plan 2018-28 outlines the strategic direction of the district for the next decade, and the big issues it expects to face in this time. In particular, the document states that maintaining vibrant, accessible town centres is vital to keeping the district liveable.
Queenstown Lakes District Council Land Transport Activity Management Plan 2018-19 to 2032-33	Queenstown Lakes District Council	The Council's vision for land transport is to provide a safe, resilient, efficient transport system that supports modal choice and addresses current and future demand for economic and social opportunities.
Queenstown Lakes District Council Urban Design Strategy	Queenstown Lakes District Council	This strategy acknowledges the connections between transport and land use. The urban form of a town or neighbourhood has a direct impact on its residents' lifestyle options. This makes it worthwhile to consider the community's aspirations for their neighbourhood, before committing to a street pattern and roading layout.
Queenstown Lakes District Council Operative District Plan 2007	Queenstown Lakes District Council	The Operative District Plan states, a well-managed transport system needs to: • be sustainable • maximise safety • cater for all modes of transport • minimise adverse effects • minimise energy usage

Strategy	Organisation	Areas of Alignment with Investment Objectives
		• • minimise conflicts with other land uses and amenity values, especially landscape, visual, heritage and pedestrian amenities.
Future Link Transport and Parking Strategy 2005	Queenstown Lakes District Council	Transport policy and investment will contribute to the community outcome, effective and efficient infrastructure that meets the needs of growth by: • Ensuring all modes of transport have a means to enter transport networks efficiently and effectively, and once there, move between 'destinations' effectively and efficiently • Having a balanced approach to meeting traffic demand.
Draft Queenstown Lakes District on foot, by cycle strategy 2008	Queenstown Lakes District Council	The council's strategy is in line with the national vision. A New Zealand where people from all sectors of the community walk and cycle for transport and enjoyment. The broad outcomes sought by this strategy are to see more people walking and cycling and greater satisfaction within the community with the ease, safety and security of walking and cycling in the district. If these things are achieved, a positive contribution is being made to the quality of the district as a place to live and visit.
Queenstown Lakes District Council Strategy for the Procurement of Transport Infrastructure Services	Queenstown Lakes District Council	This Strategy has community outcomes aligned to the Long Term Plan. Its aim is to procure effective and efficient infrastructure that meets the needs of growth.

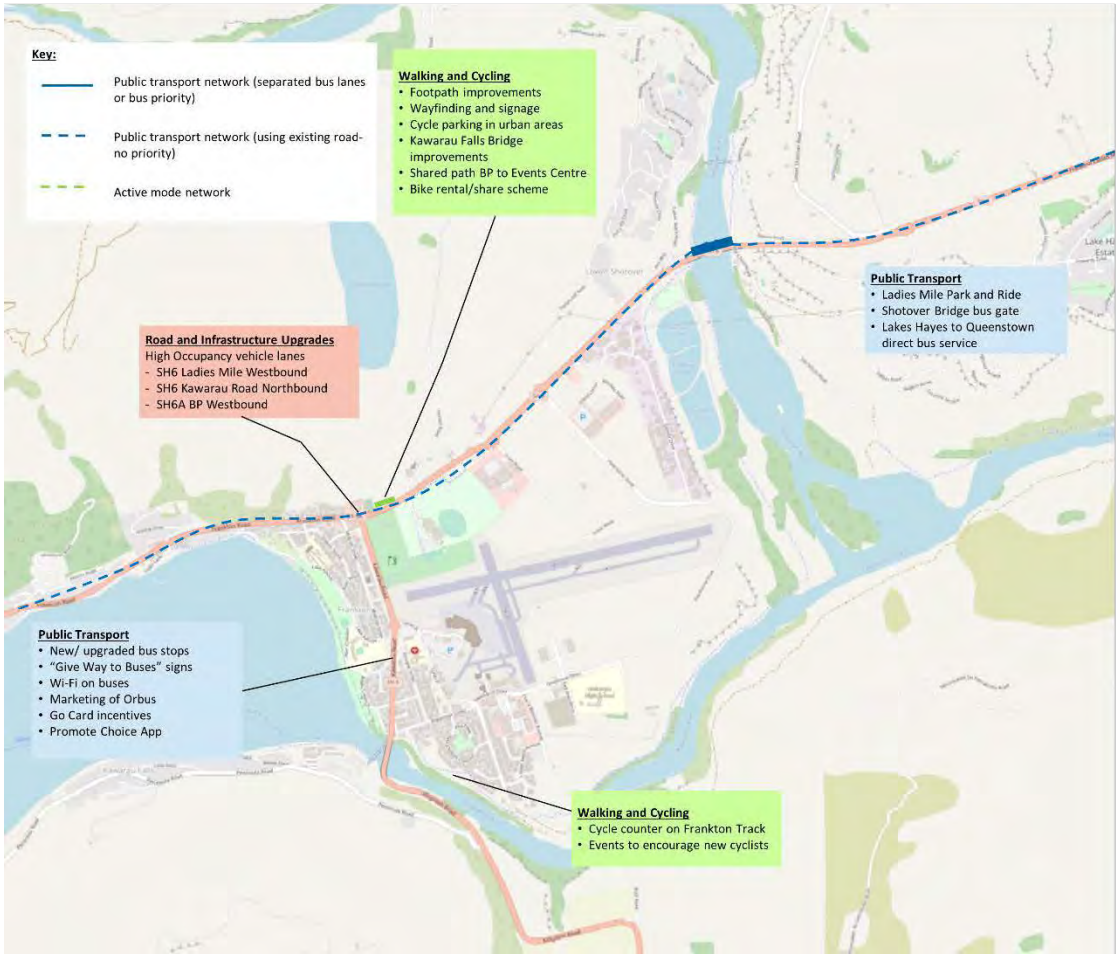
Appendix E - Uncertainty Log

Uncertainty	Description	Degree of uncertainty	Impact on programme
Financial / Funding	The ability of partners to fund the major infrastructure projects of the recommended programme, which could influence phasing/ delivery of interventions. The ability to fund maintenance and operations for new infrastructure either major or minor.	Some uncertainty	High
Property / land acquisition	Unknown number of properties required, which could result in delays to implementation.	Some uncertainty	High
Change in government policy	A change in government or government policy direction may mean interventions of the recommended programme receive lower priority status.	Some uncertainty	Medium
Economic Growth – Tourism	Tourist demand and associated growth may reduce due to a deterioration in global economic conditions resulting in delays to new developments and demand for local employment.	Some uncertainty	Medium
Population growth	Changes to forecast population growth can impact the phasing of the recommended programme. Changes to forecast population growth will require interventions to be provided faster or slower than planned.	Medium uncertainty	Medium
Stakeholder relationships	Levels of community buy-in and acceptance of the recommended programme.	Low uncertainty	Medium
Procurement	The availability of contractors / expertise to implement and progress the recommended programme through its next phases.	Some uncertainty	Medium
Construction challenges	Construction challenges could include noise and vibration, steep terrain and unknown ground conditions.	Some uncertainty	High
Parallel work streams (integration of networks)	The interventions identified in the recommended option is not supported by the findings of parallel work streams.	Low uncertainty	Medium
Technology	New technology or software becomes available that can reduce the need to travel, the way people work and how they meet their needs.	Low uncertainty	Medium

Uncertainty	Description	Degree of uncertainty	Impact on programme
Environmental	Some of the proposed options may have environmental impacts, these can be mitigated, minimised and/ or offset if necessary.	Near certain	Medium

Appendix F - Long List Option Descriptions and Assessment

Option 1: Do Minimum / Business As Usual (RLTP funded projects)



Option Description:

The Do Minimum/ Business as usual programme option incorporates all of the of the planned/ funded investments.

The do minimum programme has an focus on public transport activities and minor road and infrastructure improvements.

There are no significant walking and cycling infrastructure responses listed in the do minimum programme option.

Short-Term: 2019-2024	Medium-Term: 2024-2030	Long-Term: 2030-2050

All of the currently confirmed and planned investment under the do minimum programme are undertaken. This includes the implementation of bus and high occupancy vehicle lanes on specific routes in Frankton and some intersection improvements.
 	
Road and Infrastructure Upgrades:
• High Occupancy vehicle lanes
  • SH6 Ladies Mile Westbound
  • SH6 Kawarau Road Northbound
  • SH6A BP Westbound
 	
Public Transport:
• Ladies Mile Park and Ride
• Shotover Bridge bus gate
• Lakes Hayes to Queenstown direct bus service
• New/ upgraded bus stops
• "Give Way to Buses" signs
• Wi-Fi on buses
• Marketing of Orbus
• Go Card incentives
• Promote Choice App
 	
Walking and Cycling:
• Footpath improvements
• Wayfinding and signage
• Cycle parking in urban areas
• Kawarau Falls Bridge improvements
• Shared path BP to Events Centre
• Bike rental/share scheme
• Cycle counter on Frankton Track
• Events to encourage new cyclists
	High levels of commercial and residential development continue to occur in the Queenstown and its wider catchment areas.
	No funding is confirmed in this time period.
		Population and tourism growth and commercial development continues to place pressure on the transport network. No funding confirmed in this time period.

Investment Outcome Some improvement to public transport travel time reliability for buses with provision of bus priority lanes being part of the SH6 and SH6A corridor improvements. There is some incentive to use public transport with bus priority. Service improvements and park & ride facilities. Transport safety is improved through intersection signalisation.	**Investment Outcome** Travel by private vehicle remains the predominant mode of transport due to ease and convenience for residents of the wider catchment area. Average travel times and travel time reliability remain issues on the key corridors of SH 6 and SH 6A.	**Investment Outcome** Resident and visitor growth places increasing pressure on the transport network resulting in unreliability of public transport travel times, low multi-modal uptake, increases to travel times, community severance and negative safety outcomes.

1 Investment Objectives

Reliability and Travel Times			Safety	Multi Modal Access and Use	Community Severance and Liveability
KPI 1: Average travel times between key locations for general traffic, public transport and cycling KPI 2: PT Travel time reliability KPI 3: Level of Service at a projected throughput of people KPI 4: Throughput of people (walking, cycling, general traffic and public transport) and goods (freight) on key corridors			KPI 1: Deaths and serious injuries KPI 2: Perception of safety surveys	KPI 1: Public transport as a percentage of all travel movements KPI 2: Active modes as a percentage of all travel movements KPI 3: Households within 800m of competitive and convenient travel choices	KPI 1: Community connectedness/ community severance KPI 2: Frankton as a visitor gateway KPI 3: Air and water quality KPI 4: Connected network for active modes
Active Modes	**Public Transport**	**General Traffic**			
1	**1**	**-2**	**-1**	**-1**	**-2**
Average travel times for public transport will improve slightly with the limited bus priority measures and bus lanes constructed. However, average travel times for general traffic will worsen with predicted population and visitor growth and little incentive to mode shift. There may be some minor shifts to public transport (utilising Park & Ride) as general traffic travel times become more unreliable and if discounted fares for buses continue.			Minimal provision for increased separated active modes network and no speed restrictions on key corridors increase safety risk.	Some uptake early but limited long-term improvement in public transport. Little incentive to change mode due to the ease of private vehicle travel. Park & Rides provide minor improvements to public transport accessibility, but uptake is limited because of poor public transport travel time reliability. Little uptake of active mode travel due to limited investment in connected network under the do minimum programme.	Air and water quality will decline as traffic volumes increase. Public service improvements and provisions increase social connections with others and provide some liveability improvements but no speed restrictions significantly hamper connectedness.

2 Environmental & Social Impacts

Landscape and Visual Effects	Landscape	-1	Minimum landscape effects with works confined to existing road corridors. Moderate landscape effects of park and ride facilities.
	Visual Amenity	-1	Low visual effects of overall extent of infrastructure improvements. Minor visual effects of the operation of expanded ferry services and associated facilities.
Environment	Air Quality Note: Air and water quality also accounted for in Investment Objective 4.	-2	In the long run increased general traffic could make emission targets difficult to realise.
	Water Quality and ecology Note: Air and water quality also accounted for in Investment Objective 4.	-1	A lack of mode shift and increased general traffic could increase the levels of hydrocarbons and metals in road sediment run-off in the study area.
	Noise	-1	Increases in general traffic and freight volumes along SH6 has potential to create noise impacts for residential areas near the state highway corridor. Areas likely to be impacted are in the south of the study area near Kawarau Falls Bridge, and recent and proposed developments at Quail Rise.

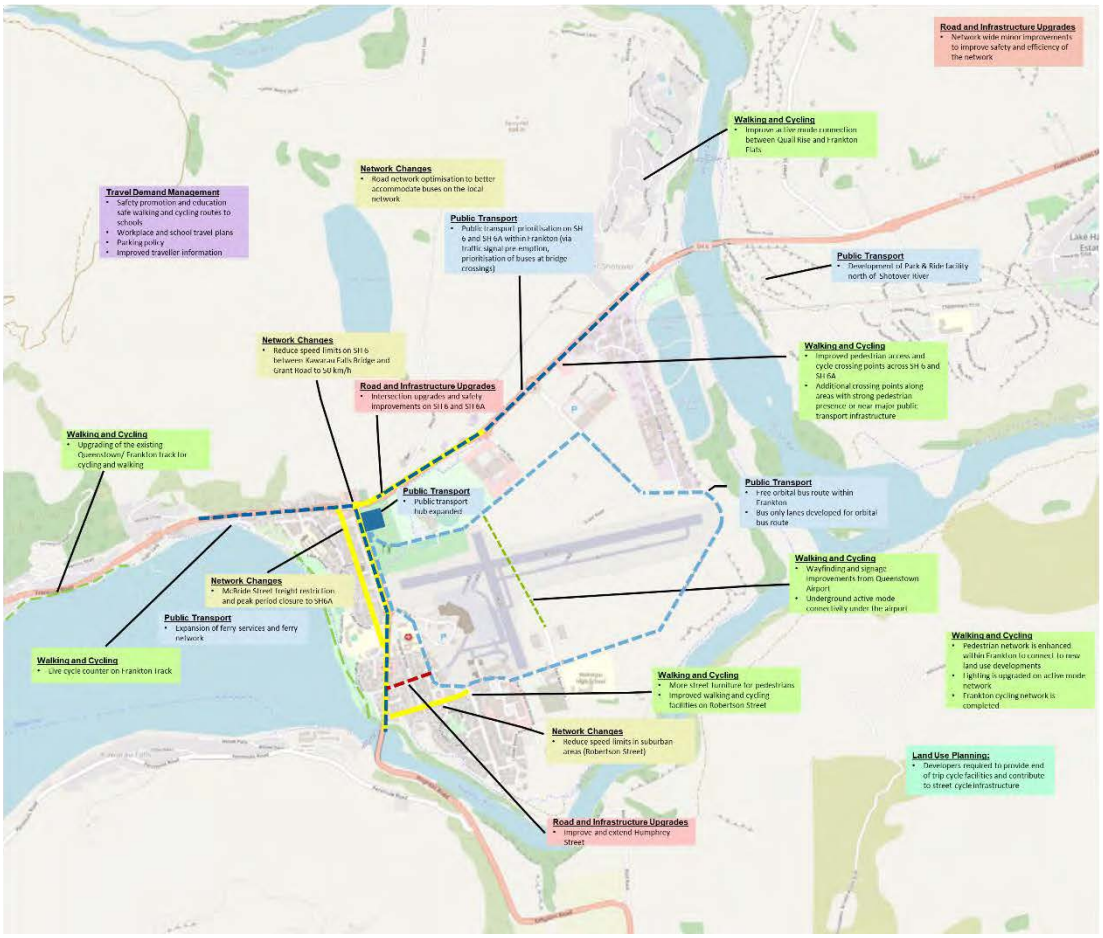
Social, Cultural and Heritage	Cultural		
	Archaeological and built heritage		No known areas of archaeological or built heritage effected.
	Visitors	-1	Potential visitor impacts with increasing traffic volumes contributing to negative visitor experience.
	Human Health	0	Some improvement to human health with public transport and minor cycling improvements. Increased general traffic will have negative impacts on human health.
	Public and Stakeholders	-2	Programme does not go far enough to realising benefits for Frankton local residents or achieving stakeholder outcomes.
	Land	2	Majority of planned works are contained within existing road corridors.

3 Cost, Constructability & Operations

Constructability		3	Works can be achieved.
Technical Feasibility		2	All Do Minimum interventions are technically feasible, and able to be designed and constructed by the existing regional labour force.
Operational Requirements	Maintainability	2	Maintenance of Programme 1 infrastructure can easily be added to the existing road infrastructure maintenance and asset management plans.

Affordability		3	Do minimum programme is affordable as improvement works are planned or committed in the Otago Regional Council Regional Land Transport Plan.
Cost	**High level cost estimate (CAPEX)**		$
	High level cost estimate (OPEX)		$ Increased maintenance and operating costs for bus services.
	Property Acquisition		Some properties may be required for park n ride facilities, this is outside the project area.

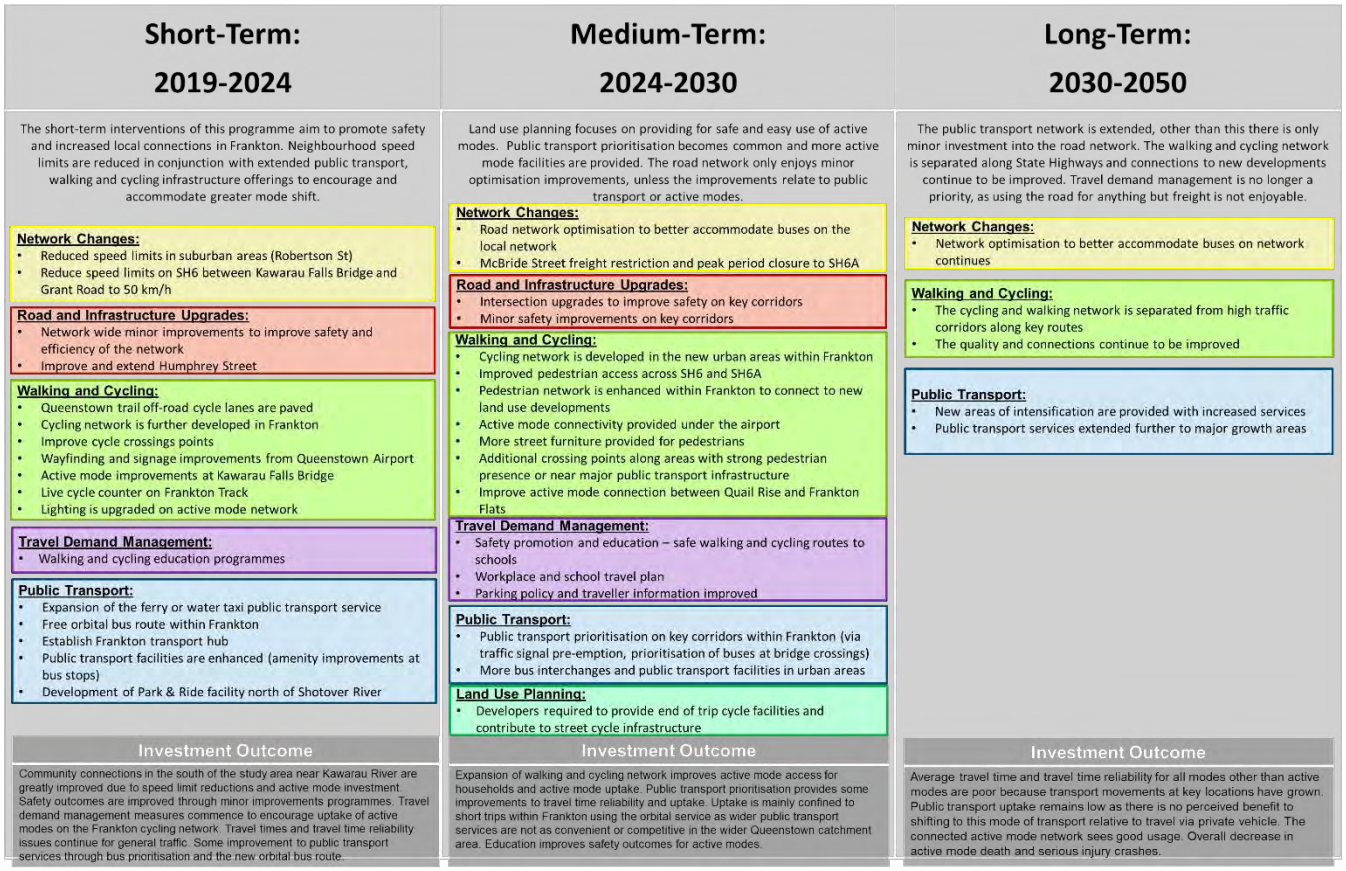
Option 2: Community Connections - Safety and Access within Frankton



Option Description:

The Community Connections programme option focuses on improving safety and accessibility within Frankton, primarily by investing in walking and cycling, and improved and increased public transport services. This includes the provision of a free orbital bus service around Frankton. Investment in active modes and public transport within Frankton aim to address severance and meet localised transport needs.

Investment is heavily centred around promoting liveability, enhancing the community feel of Frankton and the way the study area operates as a gateway to Queenstown.



1 Investment Objectives

Reliability and Travel Times			Safety	Multi Modal Access and Use	Community Severance and Liveability
KPI 1: Average travel times between key locations for general traffic, public transport and cycling KPI 2: PT Travel time reliability KPI 3: Level of Service at a projected throughput of people KPI 4: Throughput of people (walking, cycling, general traffic and public transport) and goods (freight) on key corridors			KPI 1: Deaths and serious injuries KPI 2: Perception of safety surveys	KPI 1: Public transport as a percentage of all travel movements KPI 2: Active modes as a percentage of all travel movements KPI 3: Households within 800m of competitive and convenient travel choices.	KPI 1: Community connectedness/ community severance KPI 2: Frankton as a visitor gateway KPI 3: Air and water quality KPI 4: Connected network for active modes
Active Modes	Public Transport	General Traffic			
3	1	-2	2	1	2
Travel times improved for active modes. Orbital bus route travel times are reliable. All other public transport travel times have some improvement with bus priority measures. Level's of service on SH 6 and SH 6A decline as annual average daily traffic increases. Throughput of people increases but the network is not optimised as the majority of this throughput is made up of private vehicle users.			A speed limit decrease on SH6 and provision of separate walking and cycling facilities will lead to improved safety outcomes in the study area. Speed reductions and vehicle restrictions in key locations will improve the overall perception of transport network safety in Frankton. There could be an improved safety perception of active modes (safety in numbers). Growth in general traffic volumes contributes to some negative safety outcomes in Frankton.	Improved access and uptake from improved active mode networks. Slight improvement in mode share with completed active mode network to encourage uptake for short/medium trips. Public transport uptake to and through Frankton is limited. Uptake of public transport within Frankton is high through provision of the free orbital bus service.	Community connectedness, liveability and visitor perception improved through speed limit restrictions and wayfinding measures. Increased amenity and access to neighbourhood centres for short-medium trips. Increased community focussed interventions, active mode uptake and more local connections provided. Potential for less emissions and road run-off due to speed restrictions. There are still high volumes of general traffic through Frankton.

2 Environmental & Social Impacts

Landscape and Visual Effects	Landscape	-1	Minor landscape effects across Frankton as no major infrastructure implemented that will impact the surrounding environment. Some properties will be affected for the new Humphrey Street link and orbital bus route.
	Visual Amenity	2	Surrounding visual amenity enhanced through streetscape improvements to support active modes and place making enhancements.
Environment	Air Quality Note: Air and water quality also accounted for in Investment Objective 4.	1	Less CO2 emissions with uptake of active modes.
	Water Quality and ecology Note: Air and water quality also accounted for in Investment Objective 4.	1	Lower speeds reduce the amount of metal sediment and hydrocarbon run-off into the natural environment (from reduced braking).
	Noise	1	Lower speeds could reduce vibration and noise in residential areas. Traffic volumes are expected to increase for general traffic and freight vehicles.

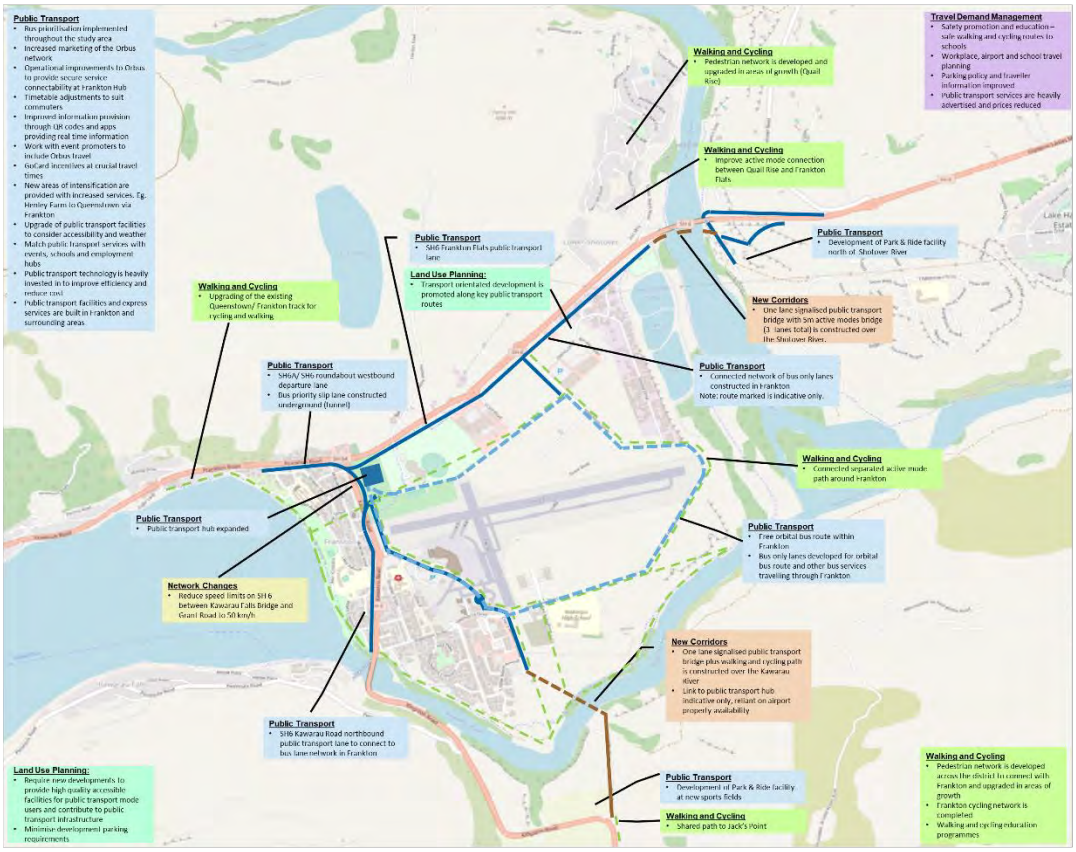
Social, Cultural and Heritage	Cultural		
	Archaeological and built heritage		No known areas of archaeological or built heritage effected.
	Visitors	1	Improved signage, streetscape and pedestrian network connections make navigation and wayfinding easier for visitors in Frankton. Increased travel times for general traffic will impact interregional travellers in cars.
	Human Health	2	Health benefits of uptake of active modes, and improved access to social connections in the community.
	Public and Stakeholders	1	Programme aligns with public's desire for improved liveability and community outcomes in Frankton. Could be perceived as not addressing congestion and travel time reliability issues in the study area sufficiently for the wider community.
	Land	-1	Land required for orbital bus route, and the development of a public transport hub. Properties are required to create the new Humphrey Street link.

3 Cost, Constructability & Operations

Constructability		2	Works can be achieved.
Technical Feasibility		2	All interventions are technically feasible, and able to be designed and constructed by the existing regional labour force.
Operational Requirements	Maintainability	2	Is maintainable and can be incorporated into current asset management programmes.

Affordability		2	Is affordable and aligns well with the 2018-21 GPS.
Cost	**High level cost estimate (CAPEX)**		$$
	High level cost estimate (OPEX)		$$ Increased operating costs for bus services.
	Property Acquisition		$

Option 3: Public transport (bus prioritisation) and active modes focus



Option Description:

Option 3 has a focus on public transport and active modes. Its interventions aim to provide connected, and segregated bus and active mode networks in Frankton. This will make sure that travel times are reliable for both of these transport modes as travel movements increase with residential and visitor growth.

Two public transport and active mode bridges over the Shotover River and Kawarau River will provide exclusive access to the study area for these modes. Connection to bus lanes and a cycle network will then allow quick travel within and through the area.

Short-Term: 2019-2024	Medium-Term: 2024-2030	Long-Term: 2030-2050
Speed limit restrictions are implemented on SH 6 between Kawarau Falls Bridge and Grant Road to improve safety. Bus prioritisation is implemented throughout Frankton and significant upgrades are made to the active modes network in Frankton. Travel Demand Management measures are utilised to encourage behaviour change towards greater multi-modal transport use.	Land use planning is used to encourage use of public transport. Transit orientated development improves access to travel choices to enter or travel within/ through Frankton. Travel Demand Management is focused on encouraging public transport use. The orbital bus route is completed connecting with bus only lanes and two public transport and active mode bridges entering Frankton from the east and south.	Public transport services, routes and frequency are all upgraded, this could involve utilising an electric bus fleet. New transport interchanges are built along key arterials. Walking routes to public transport facilities in continue to be upgraded.
Network Changes: • Reduce speed limits on SH 6 between Kawarau Falls Bridge and Grant Road to 50 km/h	**Public Transport:** • Orbital bus route and bus lanes built throughout the study area • Upgrade of public transport facilities to consider accessibility and weather • Match bus services with events, schools and employment hubs • Public transport technology is heavily invested in to improve efficiency and reduce cost- apps and real time travel information. • Public transport facilities and express services are provided in Frankton and surrounding areas • More bus interchanges are built in surrounding areas	**Walking and Cycling:** • Walking routes to public transport facilities continue to be upgraded and amenity improved
Public Transport: • Public Transport hub expanded • Bus prioritisation implemented throughout the study area • Increased marketing of the Orbus network • Operational improvements to Orbus to provide secure service connectability at Frankton Hub • Timetable adjustments to suit commuters • Improved information provision through QR codes/apps providing real time information • Work with event promoters to include Orbus travel • GoCard incentives at crucial travel times • New areas of intensification are provided with increased services. Eg. Henley Farm to Queenstown via Frankton • Development of Park & Ride facilities north and south of study area.	**Walking and Cycling:** • Walking networks are upgraded, particularly around public transport interchanges and facilities • Education programmes continue • Pedestrian network is developed across the district to connect with Frankton, and upgraded in areas of growth	**Public Transport:** • The buses and public transport infrastructure are all upgraded to incorporate best practice accessible design • New transport interchanges are built along key arterials • The public transport services, routes, and frequency are upgraded
Walking and Cycling: • Frankton cycling network is completed • Queenstown/ Frankton trail off-road cycle lanes are paved • Education programmes • Connected separated active mode path around Frankton • Improve active mode connection between Quail Rise and Frankton Flats • Shared path to Jack's Point	**Travel Demand Management:** • Public transport use is incentivised and heavily advertised • Reduce price of public transport travel	
Travel Demand Management: • Travel planning for schools, work places, airport passengers • Community travel plans • Car pooling and car sharing programmes • Parking prices increase	**Land Use Planning:** • Require new developments to provide high quality accessible facilities to support public transport services • Minimise development parking requirements • Transport orientated development is promoted along key bus routes	
	New Corridors: • One lane public transport bridge with 5m active modes bridge (3-lanes total) is constructed over the Shotover River. • One lane signalised public transport bridge plus walking and cycling path is constructed over the Kawarau River	
Investment Outcome Immediate 50 km/h speed limit restrictions on SH 6 between Kawarau Falls Bridge and Grant Road will improve safety and pedestrian access. Travel planning initiatives support public transport and active modes and allow mode shift to gain momentum.	**Investment Outcome** Park & Ride facilities and pedestrian connections at interchanges improve access to public transport for Queenstown residential catchments inside and outside of Frankton. Public transport travel times decrease as a result of bus lanes and bridge crossings. This creates positive safety outcomes as public transport and active modes are separated from other motorised vehicles. Upgrades to bus services increase customer experiences. Transport orientated development means new dwellings are easily accessible.	**Investment Outcome** Upgrades to public transport services and facilities make travel by public transport even more comfortable and convenient. Electric buses potentially introduced into the network to provide carbon zero services. Public transport is viewed by residents as an easy, convenient and efficient way to travel. Community interactions in Frankton are high and there is inclusive access to Frankton for all. Travel times are predictable for all modes.

1 Investment Objectives

Reliability and Travel Times			Safety	Multi Modal Access and Use	Community Severance and Liveability
KPI 1: Average travel times between key locations for general traffic, public transport and cycling KPI 2: PT Travel time reliability KPI 3: Level of Service at a projected throughput of people KPI 4: Throughput of people (walking, cycling, general traffic and public transport) and goods (freight) on key corridors			KPI 1: Deaths and serious injuries KPI 2: Perception of safety surveys	KPI 1: Public transport as a percentage of all travel movements KPI 2: Active modes as a percentage of all travel movements KPI 3: Households within 800m of competitive and convenient travel choices.	KPI 1: Community connectedness/ community severance KPI 2: Frankton as a visitor gateway KPI 3: Air and water quality KPI 4: Connected network for active modes
Active Modes	**Public Transport**	**General Traffic**			
3	**2**	**-1**	**2**	**2**	**2**
There are decreased but predictable travel times for general traffic. Active mode and public transport average travel times are improved. Predictability of travel times for public transport and general traffic is improved. At the same time travel time variance between public transport and general traffic is reduced. Level of service increased for public transport and active modes on key corridors, general traffic level of service on key corridors remains similar to current levels as population and visitor growth continues. There are more people travelling through key locations on SH6 and SH6A.			Safety outcomes are improved in Frankton between Grant Road to Kawarau Falls Bridge due to speed restrictions safety promotion and education. A connected active mode network around Frankton link key land uses improves safety outcomes and perceptions for active mode users. Crossing points on SH6 near Quail Rise improve perception of safety. Freight vehicles will continue to use state highway and local road corridors near residential areas and amenity in the study area.	Patronage increases for public transport and active modes. The number of households within 800m of convenient and competitive travel choices is increased with expansion of active modes network and expansion and improved frequency of public transport services. Public transport and active mode network connectivity is not completed until the medium term when the to public transport and active mode bridges over the Shotover River (east) and Kawarau River (south) are constructed.	Reduced speeds in residential areas and areas of amenity increase community connectedness. New pedestrian and cycling path connecting key locations in Frankton increases liveability for residents. Crossing points along SH6 in north of study area are limited.

2 Environmental & Social Impacts

Landscape and Visual Effects	Landscape	-2	Landscape effects of new public transport and active mode lanes in Frankton and construction of two single lane public transport bridges with active mode provision. No corridor capacity upgrades or widening to SH6 or SH6A for general traffic.
	Visual Amenity	-2	Moderate visual effects of two public transport bridges with active mode provisions.
Environment	Air Quality Note: Air and water quality also accounted for in investment Objective 4.	1	Uptake of public transport and active modes and reduced speed limits on SH6 will reduce vehicle emissions. Freight vehicles will continue to travel to and through Frankton and use SH 6 and SH 6A, particularly in the short to medium term in line with growth predictions.
	Water Quality and ecology Note: Air and water quality also accounted for in investment Objective 4.	2	Mode shift towards public transport and active modes could reduce metal sediment and hydrocarbon run-off into the natural environment. Freight and some general traffic will remain.
	Noise	1	Noise improved through mode shift and a maintained number of general vehicles travelling on SH6 and SH6A. There could be some noise impacts from bus lanes that traverse close to residential areas around Remarkables Park in Frankton, routes of bus lanes indicative only at this stage.

Social, Cultural and Heritage	Cultural		
	Archaeological and built heritage		No known areas of archaeological or built heritage effected.
	Visitors	1	Visitor access within and from Frankton to the wider Queenstown area is improved with greater access to transport options. Active mode facilities around and through Frankton allows visitors to have improved experiences such as being closer to the natural landscape of Frankton.
	Human Health	1	The completion of the cycleway network and separated cycle paths around Frankton offer some improvements to human health and wellbeing. There could be improved social connections in the community with increased uptake of public transport as a travel option.
	Public and Stakeholders	2	Programme aligns strongly with the current GPS 2018-21, public and stakeholder desire for mode shift, promotion of walking and cycling and improved travel time reliability in the study area.
	Land	-2	A number of properties are required to construct bus lanes and cycleways within Frankton.

3 Cost, Constructability & Operations

Constructability		-1	Works can be achieved but will require planning and technical input.
Technical Feasibility		-1	Two bridge structures required for the public transport and active mode river crossings in the north east and south of the study area.
Operational Requirements	Maintainability	0	Maintenance of the bus lanes, bridges and cycle network is consistent with existing maintenance carried out on the remainder of the district's transport network.

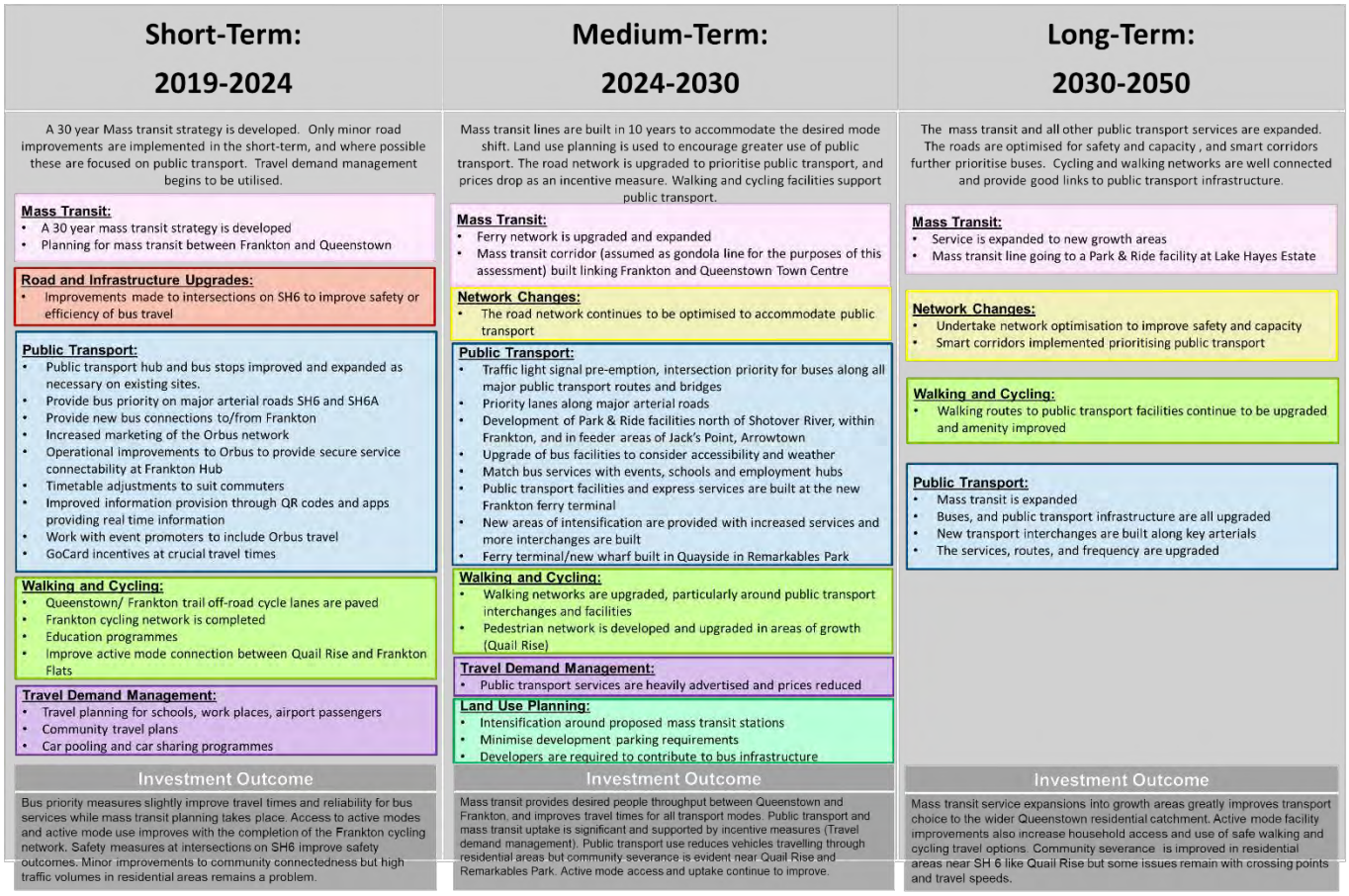
Affordability		-2	Large costs associated with two public transport river crossings and property acquisition required for bus lanes.
Cost	**High level cost estimate (CAPEX)**		$$$
	High level cost estimate (OPEX)		$$$ Increased operating costs for bus services.
	Property Acquisition		$$

Option 4: Mass transit within 10 years and active modes focus

Option Description:

Option 4 provides a balanced programme of investment across all transport activity classes. The public transport network is heavily invested in the short-term through bus prioritisation, whilst a mass transit network is developed within ten years to accommodate growth in visitor movements.

Movements to, within and through Frankton are promoted and not discouraged.



1 Investment Objectives

Reliability and Travel Times			Safety	Multi Modal Access and Use	Community Severance and Liveability
KPI 1: Average travel times between key locations for general traffic, public transport and cycling KPI 2: PT Travel time reliability KPI 3: Level of Service (at a projected throughput of people KPI 4: Throughput of people (walking, cycling, general traffic and public transport) and goods (freight) on key corridors			KPI 1: Deaths and serious injuries KPI 2: Perception of safety surveys	KPI 1: Public transport as a percentage of all travel movements KPI 2: Active modes as a percentage of all travel movements KPI 3: Households within 800m of competitive and convenient travel choices.	KPI 1: Community connectedness/ community severance KPI 2: Frankton as a visitor gateway KPI 3: Air and water quality KPI 4: Connected network for active modes
Active Modes	Public Transport	General Traffic			
2	2	-1	1	2	2
There are decreased but predictable travel times for general traffic. Mass transit directly improves public transport reliability and effectively competes with single occupancy vehicle travel times where public transport hubs exist. Throughput of people on key corridors increased for all modes. Bus prioritisation is provided in the short term. Slightly increased travel times and travel time reliability is expected until mass transit is provided in year 10.			Public transport uptake supports safety outcomes. There could also be safety benefits and safety perception improvements of reducing general traffic volumes, and completing the Frankton cycling network and separate Queenstown and Frankton Track cycleways. Crossing points on SH6 near Quail Rise improve perception of safety. Travel speeds on SH6 do no improve perception of safety	Significant uptake in public transport users utilising mass transit facilities. Completion of active mode network sees increase in active mode usage. In the long-term competitive and convenient mass transit accessible to residents in new growth areas. There are some limitations in uptake of public transport for the short and medium term until mass transit infrastructure is implemented.	Reduced single occupancy vehicle use is likely to increase interactions within wider community (High occupancy vehicles, public transport, active modes). Mode shift for travel on key corridors such as SH6 will somewhat improve community connectedness, but high travel speeds will remain impacting connectedness and liveability. A connected network for active modes will provide some liveability improvements.

2 Environmental & Social Impacts

Landscape and Visual Effects	Landscape	-2	Significant landscape effects of mass transit infrastructure. No major roading corridor upgrades.
	Visual Amenity	-2	High visual effects of mass transit infrastructure, and greater residential intensification around proposed mass transit stations and key public transport corridors.
Environment	Air Quality Note: Air and water quality also accounted for in Investment Objective 4.	2	Less traffic will reduce emissions with mass transit and uptake of active modes. Some general traffic will remain in the study area. Freight vehicles will continue to travel to and through Frankton and use SH 6 and SH 6A.
	Water Quality and ecology Note: Air and water quality also accounted for in Investment Objective 4.	2	Mode shift to mass transit could create less traffic and reduce metal sediment and hydrocarbon run-off into the natural environment. Freight and some general traffic will remain.
	Noise	1	Noise improved through mode shift and a reduction of general vehicles travelling on SH6 and SH6A. Noise and vibration impacts from gondola unknown but expected to be minimal. Freight vehicles will continue to travel on the state highway corridors and within the light commercial area of Frankton.

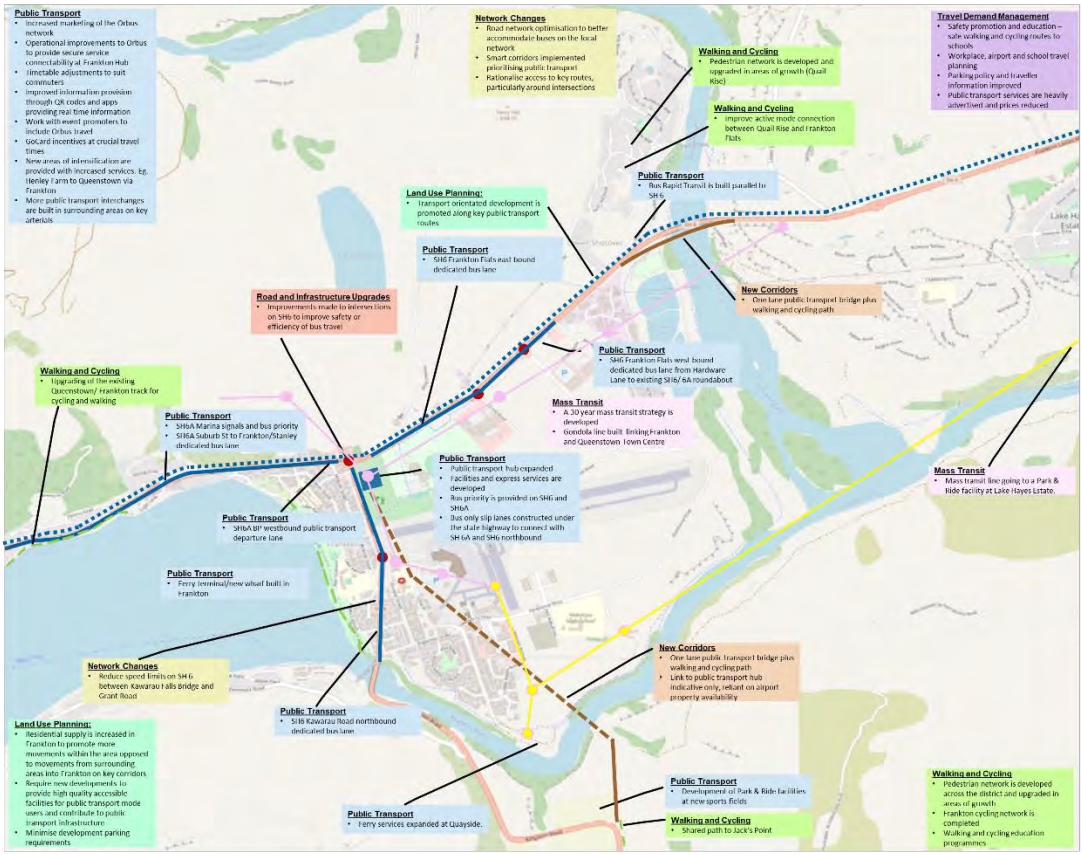
Social, Cultural and Heritage	Cultural		
	Archaeological and built heritage		No known areas of archaeological or built heritage effected.
	Visitors	3	Provision of mass transit facilities will improve visitor access and transport choices within Queenstown, and could be marketed as a tourist activity. Improved active mode facilities in Frankton allows visitors to have improved experiences such as being closer to the natural landscape.
	Human Health	1	Some improvement to human health with completion of Frankton cycleway network, and separated cycle paths. There could be improved social connections in the community with increased uptake of High occupancy vehicles, public transport and mass transit transport options.
	Public and Stakeholders	2	Programme aligns with the current GPS 2018-21, public and stakeholder desire for mode shift and improved travel time reliability in the study area. Could be perceived as not completely addressing community severance issues in Frankton.
	Land	-2	Possibly significant land acquisition required for mass transit gondola line, Park & Rides, public transport and ferry hubs.

3 Cost, Constructability & Operations

Constructability		-2	Likely to have engineering and construction challenges.
Technical Feasibility		-1	Is achievable but requires experience not currently available in New Zealand for mass transit (gondola).
Operational Requirements	Maintainability	-1	Will require specific skills in Queenstown for mass transit.

Affordability		-1	The construction of mass transit infrastructure presents a significant up-front capital cost, but aligns well with the 2018-21 GPS priorities.
Cost	**High level cost estimate (CAPEX)**		$$$$
	High level cost estimate (OPEX)		$$$$
	Property Acquisition		$$$$. Possibly high number of properties required for mass transit infrastructure.

Option 5: Public transport (mass transit in approx. 20-25 years) and active modes focus



Option Description:

Option 5 invests heavily in active modes and the public transport network in the short to medium-term, with increased bus services and bus priority measures. Bus priority measures and priority lanes aim to improve short-term public transport travel time reliability, and this will be supported by travel demand management measures to encourage short-term uptake. In the medium-term bus rapid transit is constructed parallel to SH 6. Longer-term activities include the development of a mass transit system to accommodate expected future growth.

Under this programme increased residential intensification will occur in Frankton. This will mean there will be more movements within Frankton and less travel movements to, and from Frankton.

Short-Term: 2019-2024

Minor road improvements are implemented, and where possible these are focused on the public transport network. Travel Demand Management begins to be utilised to encourage behaviour change towards greater multi-modal transport use. A public transport and active modes bridge is constructed within five years over the Shotover River.

Road and Infrastructure Upgrades:
- Improvements made on key intersections to improve safety or efficiency of bus travel

Public Transport:
- Public transport hub and bus stops improved and expanded as necessary on existing sites.
- Provide bus priority and dedicated bus lanes on major arterial roads SH6 and SH6A
- Provide new bus connections to/from Frankton
- Increased marketing of the Orbus network
- Operational improvements to Orbus to provide secure service connectability at Frankton Hub
- Timetable adjustments to suit commuters
- Improved information provision through QR codes and apps providing real time information
- Work with event promoters to include Orbus travel
- GoCard incentives at crucial travel times

Network Changes:
- Reduce speed limits on SH 6, Kawarau Falls Bridge - Grant Road

Walking and Cycling:
- Frankton cycling network is completed
- Queenstown/ Frankton trail off-road cycle lanes are paved
- Education programmes

Travel Demand Management:
- Travel planning for schools, work places, airport passengers
- Community travel plans
- Car pooling and car sharing programmes
- Parking prices increase

Land Use Planning:
- Transport orientated development is promoted along key public transport routes
- Residential supply is increased in Frankton to promote more movements within the area opposed to movements from surrounding areas into Frankton on key corridors

Investment Outcome

Bus priority lanes, bridges and intersection priority measures improve travel times and reliability for bus services. Access to active modes and active mode use improves with the completion of the Frankton cycling network. Safety measures at intersections on SH6 improve safety outcomes. Public transport and speed restrictions on SH6 improve community connectedness but high traffic volumes/ severance in residential areas remain a problem until behaviours change.

Medium-Term: 2024-2030

Land use planning is used to encourage use of public transport. The increased residential supply in Frankton will result in travel movements within Frankton as opposed to vehicle movements into/ from or travelling through Frankton. The road network is upgraded to prioritise public transport and prices drop as an incentive measure. Travel Demand Management is focused on encouraging public transport use. Walking and cycling facilities are designed to support public transport. Bus rapid transit is constructed.

Network Changes:
- The road network continues to be optimised to accommodate buses

Public Transport:
- Development of park n ride facilities
- Ferry services developed and expanded at Quayside
- Upgrade of facilities to consider accessibility and weather
- Match services with events, schools and employment hubs
- Bus Rapid Transit is built along key arterial route
- Technology is heavily invested in to improve efficiency and reduce cost
- Facilities and express services are built in Frankton
- New areas of intensification are provided with increased services
- More public transport interchanges are built in surrounding areas

Walking and Cycling:
- Walking networks are upgraded, particularly around PT interchanges and facilities
- Education programmes continue
- Pedestrian network is developed across the district and upgraded in areas of growth
- Improve active mode connection between Quail Rise and Frankton Flats

Travel Demand Management:
- Public transport use is incentivised and heavily advertised
- Reduce price of public transport travel

Land Use Planning:
- Require new developments to provide high quality accessible facilities for public transport mode users and contribute to infrastructure
- Minimise development parking requirements

New Corridors:
- One lane signalised public transport bridge plus walking and cycling path over Kawarau River and Shotover River

Investment Outcome

Public transport incentives increase mode shift. Improvements to services and integrated transport and land use planning improve the viability, access and uptake of services. Active mode use increases as housing supply in Frankton increases and network access expands to households in nearby catchments (Eg. Quail Rise, Jack's Point and Lake Hayes Estate). Travel times for public transport are reliable due to segregated facilities through Frankton. Travel times for general traffic maintained as public transport uptake rises. Safety in the study area is slightly improved as public transport uptake supports safety outcomes.

Long-Term: 2030-2050

Public transport services are expanded. Mass transit (gondola and ferry services at Quayside) is provided to link key destinations and encourage public transport use.

Network Changes:
- Undertake network optimisation to improve safety and capacity
- Rationalise access to key routes, particularly around intersections
- Smart corridors implemented prioritising PT

Walking and Cycling:
- Walking routes to public transport facilities continue to be upgraded and amenity improved
- Shared path to Jack's Point

Public Transport:
- The buses and infrastructure are all upgraded to incorporate best practice accessible design
- New transport interchanges are built along key arterials
- Services, routes, and frequency are upgraded

Mass Transit:
- Planning for mass transit between Frankton and Queenstown
- Gondola line built linking Frankton and Queenstown Town Centre
- Mass transit line going to a Park & Ride facility at Lake Hayes Estate

Investment Outcome

Mass transit increases people throughput between Queenstown and Frankton, and improves travel times for all transport modes. Mass transit provides improved average travel time for public transport and travel time reliability. Community liveability not greatly improved from previous periods but the shared path to Jack's Point improves connectivity of the safe active mode network.

1 Investment Objectives

Reliability and Travel Times			Safety	Multi Modal Access and Use	Community Severance and Liveability
KPI 1: Average travel times between key locations for general traffic, public transport and cycling KPI 2: PT Travel time reliability KPI 3: Level of Service at a projected throughput of people KPI 4: Throughput of people (walking, cycling, general traffic and public transport) and goods (freight) on key corridors			KPI 1: Deaths and serious injuries KPI 2: Perception of safety surveys	KPI 1: Public transport as a percentage of all travel movements KPI 2: Active modes as a percentage of all travel movements KPI 3: Households within 800m of competitive and convenient travel choices.	KPI 1: Community connectedness/ community severance KPI 2: Frankton as a visitor gateway KPI 3: Air and water quality KPI 4: Connected network for active modes
Active Modes	Public Transport	General Traffic			
2	2	-1	2	3	2
There are decreased but predictable travel times for general traffic. Development of residential areas in Frankton reduces trips to Frankton improving or maintaining average travel times for all transport users. Public transport priority lanes/ infrastructure and service improvements significantly increase public transport reliability and level of service in the short-term. Bus Rapid Transit and public transport service improvements in the medium-term will provide a reliable system with significant reach to compliment the mass transit spine when constructed between 2030- 2050. Throughput of people on key corridors increased for all modes.			Public transport uptake supports safety outcomes, particularly when separated from general traffic at sites of potential conflict. There could also be safety benefits and safety perception improvements of reducing general traffic speeds, and completing the Frankton cycling network and separate Queenstown and Frankton Track cycleways. Freight vehicles will continue to use state highway and local road corridors near residential areas and amenity in the study area.	Significant uptake in public transport users utilising public transport in the short-term and medium term and mass transit services in the long-term. Completion of the active mode network and residential development in Frankton sees increases in use of walking and cycling for short/ medium distance trips. Public transport is considered competitive and accessible to residents including in new growth areas. Households situated within 800m of convenient and competitive public transport and active mode travel choices is expected to greatly increase due to transit oriented development and the increase of public transport service offerings and the completed Frankton cycling network.	Reduced single occupancy vehicle use is likely to increase interactions within wider community (high occupancy vehicles, public transport, active modes). Multi-modal changeover facilities such as Park & Ride facilities and walking connections will improve community connectedness. Improved crossing points at Quail Rise and speed restrictions on SH 6 improve connectedness and liveability. A connected network for active modes will provide some liveability improvements.

2 Environmental & Social Impacts

Landscape and Visual Effects	Landscape	-2	Significant landscape effects of mass transit infrastructure and provision of bus priority lanes, and slip lanes.
	Visual Amenity	-2	High visual effects of mass transit infrastructure and bus rapid transit infrastructure and greater residential intensification around proposed mass transit stations and key public transport corridors. Minor improvements with proportionately less general vehicles travelling through, to, from and within Frankton.
Environment	Air Quality Note: Air and water quality also accounted for in investment Objective 4.	2	Uptake of mass transit, public transport and active modes will reduce emissions. Some general traffic will remain in the study area. Freight vehicles will continue to travel to and through Frankton and use SH 6 and SH 6A.
	Water Quality and ecology Note: Air and water quality also accounted for in investment Objective 4.	2	Mode shift to public transport and mass transit could create less traffic and reduce metal sediment and hydrocarbon run-off into the natural environment. Freight and some general traffic will remain.
	Noise	1	Noise improved through mode shift and a reduction of general vehicles travelling on SH6 and SH6A. Noise and vibration impacts from gondola unknown but expected to be minimal. Freight vehicles will continue to travel on the state highway corridors and within the light commercial area of Frankton.

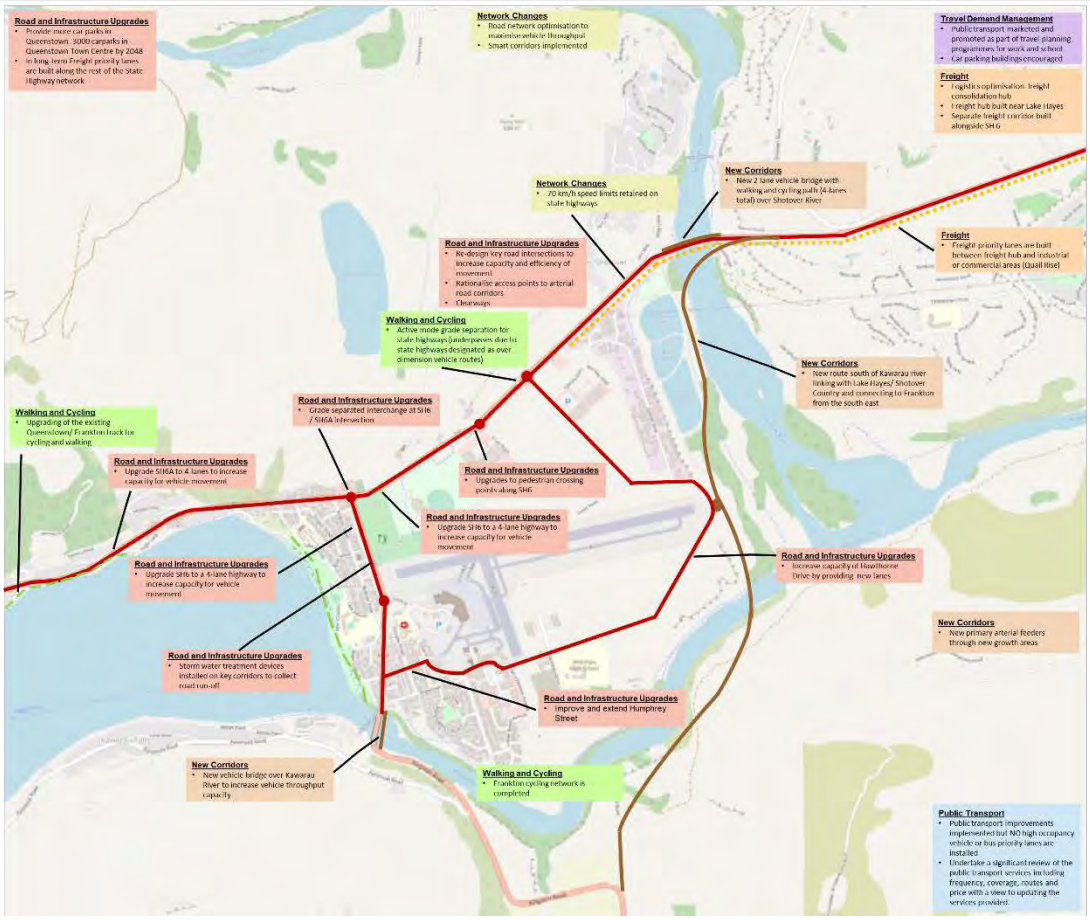
Social, Cultural and Heritage	Cultural		
	Archaeological and built heritage		No known areas of archaeological or built heritage effected.
	Visitors	2	Provision of improved multi-modal connections, and mass transit facilities will improve visitor access within Queenstown. In the long-term mass transit facilities could be marketed as a tourist activity. Greater transport choice and public transport provided to match large events could enhance visitor experiences at events or restaurants/ bars.
	Human Health	1	Some improvement to human health with completion of Frankton cycleway network, and separated cycle paths. There could be improved social connections in the community with increased uptake of public transport and mass transit transport options.
	Public and Stakeholders	2	Programme aligns with the current GPS 2018-21, public and stakeholder desire for mode shift and improved travel time reliability in the study area. It also aligns with policy to grow tourism to enhance regional economies.
	Land	-3	Significant land acquisition required for mass transit gondola line, bus rapid transit line, bus lanes, Park & Rides, public transport and active mode bridge links and ferry hub.

3 Cost, Constructability & Operations

Constructability		-2	Likely to have engineering and construction challenges. Gondola line not expanded into new growth areas.
Technical Feasibility		-1	Is achievable but requires experience not currently available in New Zealand for mass transit (gondola).
Operational Requirements	Maintainability	-1	Will require specific skills in Queenstown for mass transit.

Affordability		-1	The construction of mass transit infrastructure presents a significant up-front capital cost, but aligns well with the 2018-21 GPS priorities.
Cost	**High level cost estimate (CAPEX)**		$$$$
	High level cost estimate (OPEX)		$$$$
	Property Acquisition		$$$$. Possibly high number of properties required for mass transit infrastructure.

Option 6: Lane, parking and bridge capacity increase

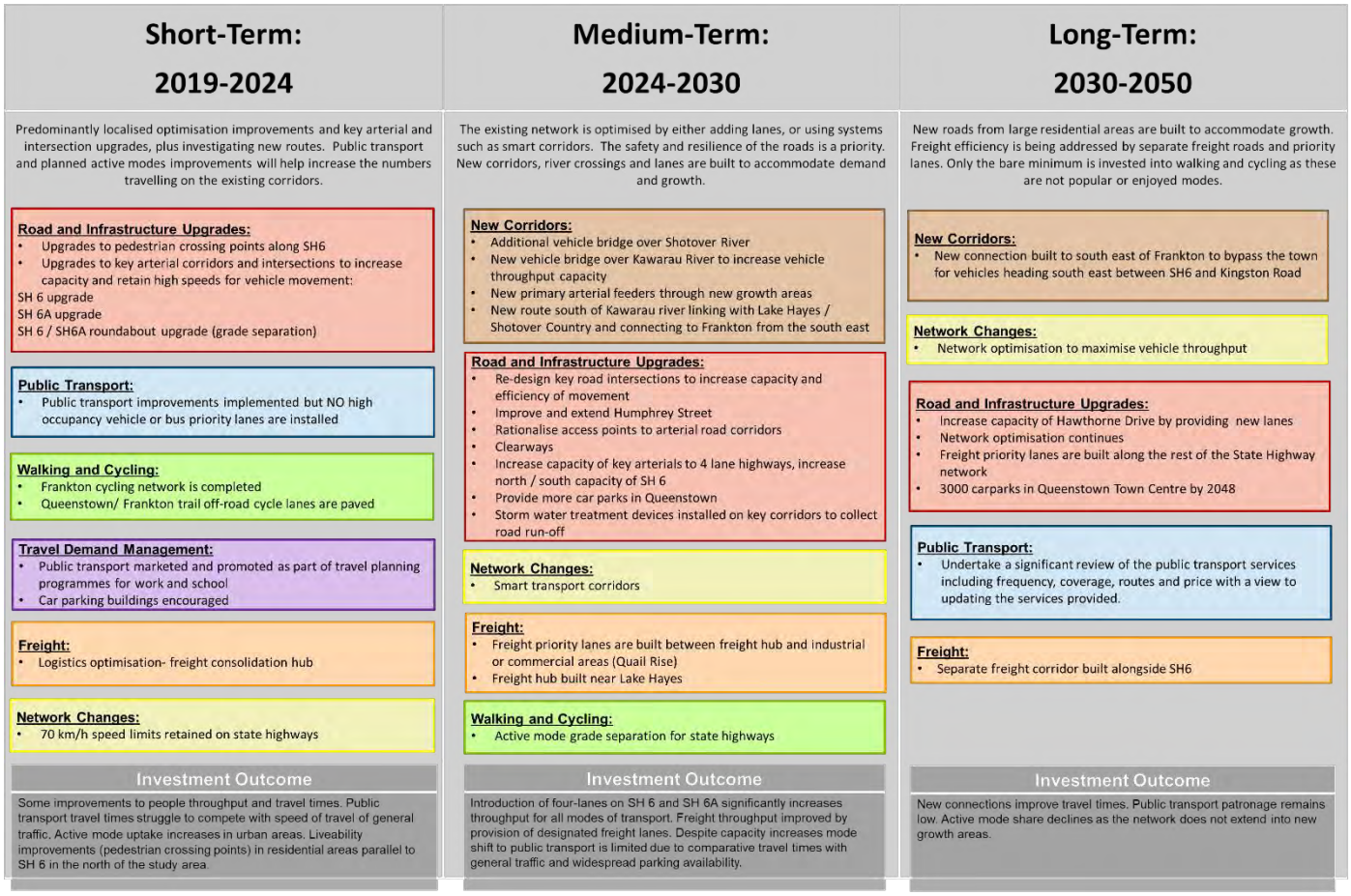


Option Description:

The lane, parking and bridge capacity increases option focuses on expanding the network to increase the road capacity, focusing on building new roads, new lanes, improved crossings and car parks.

Public transport improvements are implemented but no high occupancy vehicle or bus priority lanes are installed as general corridor capacity increases will improve travel time reliability for all modes including public transport.

This programme option allows the existing high speeds on state highways to be retained. It requires underpasses to be constructed for state highways.



1 Investment Objectives

Reliability and Travel Times			Safety	Multi Modal Access and Use	Community Severance and Liveability
KPI 1: Average travel times between key locations for general traffic, public transport and cycling KPI 2: PT Travel time reliability KPI 3: Level of Service at a projected throughput of people KPI 4: Throughput of people (walking, cycling, general traffic and public transport) and goods (freight) on key corridors			KPI 1: Deaths and serious injuries KPI 2: Perception of safety surveys	KPI 1: Public transport as a percentage of all travel movements KPI 2: Active modes as a percentage of all travel movements KPI 3: Households within 800m of competitive and convenient travel choices.	KPI 1: Community connectedness/ community severance KPI 2: Frankton as a visitor gateway KPI 3: Air and water quality KPI 4: Connected network for active modes
Active Modes	**Public Transport**	**General Traffic**			
2	**2**	**2**	**-2**	**-2**	**-2**
Corridor and intersection capacity improvements means average travel times and level of service is improved for all modes of transport. Public transport travel times are more reliable due to greater route throughput capacities and less congestion at convergence points in the transport network. There is potentially greater throughput of people on SH 6 and SH 6A, most of which are expected to be private vehicle users. In the long-term if growth expectations are realised there is potential for congestion and reliability issues to return as single occupancy vehicle use remains high, and travel movements increase.			Potential for slightly improved safety outcomes and improved perception of safety due to upgraded active mode infrastructure and state highway corridor safety/ capacity improvements. However these benefits are more than offset in the long-term by increasing traffic volumes and more conflicting travel movements between modes. High speed area through Frankton impacts perceptions of safety. Likely low uptake in public transport and active modes.	Little incentive to change mode due to the relative ease of private vehicle travel and the development of more car park facilities in Queenstown. Public transport travel choices are improved but these options are not convenient or competitive with private vehicle use, which is expected to result in limited public transport uptake. Active mode improvements result in a slight increase in active mode uptake for short distance trips. It is anticipated the majority of medium distance trips will be taken via private vehicle because of ample parking opportunities.	Community severance issues potentially worsened with wider corridors and greater vehicle throughput on SH 6. The wider corridors and increased traffic may also impact visitor perceptions of Frankton, and their wayfinding ability. Air and water quality is expected to decline as traffic volumes increase. A connected network for active modes and upgrades to pedestrian crossing points along SH6 provide minor liveability improvements. New corridor connection from Shotover Country to Kingston Road will allow vehicles to bypass Frankton residential areas, however this is not the predominant regional travel movement through the study area.

2 Environmental & Social Impacts

Landscape and Visual Effects	Landscape	-2	Additional roading infrastructure, especially corridor widening, freight lanes and bridge construction has high landscape impacts.
	Visual Amenity	-2	High visual impacts of new bridge structures, freight lanes, and wider corridors. The establishment of a freight hub outside the study area and the transferring of freight vehicles to designated corridors is expected to reduce commercial land use development in Frankton and numbers of freight vehicles travelling through the study area.
Environment	Air Quality Note: Air and water quality also accounted for in Investment Objective 4.	-3	In the long run increased general traffic and limited mode shift could make emission targets difficult to realise, and negatively impact the natural environment.
	Water Quality and ecology Note: Air and water quality also accounted for in Investment Objective 4.	-2	A lack of mode shift and increased general traffic could increase the levels of hydrocarbons and metals in road sediment run-off in the study area. Some of these impacts are mitigated by the installation of storm water treatment facilities on SH 6.
	Noise	-2	Significant increases in general traffic has potential to create noise impacts for residential areas near the state highway corridor. Areas likely to be impacted are in the south of the study area near Kawarau Falls Bridge, and recent and proposed developments at Quail Rise. Freight vehicles using dedicated corridors and operating out of freight hubs in Lake Hayes will reduce numbers of freight vehicles travelling through residential areas in the south of the study area (near Kawarau Falls).

Social, Cultural and Heritage	Cultural		
	Archaeological and built heritage		No known areas of archaeological or built heritage effected.
	Visitors	-1	Provision of increased roading capacity will improve visitor access via camper van or private vehicle within Queenstown. Additional river crossings could have minor impacts on visitor jet boat activities on the Shotover and Kawarau Rivers. Potential visitor impacts could come about with increasing traffic volumes and associated negative environmental impacts.
	Human Health	-1	Some improvement to human health with completion of Frankton cycleway network, and separated cycle paths. However this is limited to short journeys mostly within Frankton. There could be decreased social connections in the community with the prevalence of private vehicle travel.
	Public and Stakeholders	-1	This programme is very expensive and will have significant impacts on council rates. Programme aligns with stakeholder and public's desire for addressing congestion and travel time reliability issues in the study area. Reduced freight vehicles in study area and improved SH 6 pedestrian crossings support the ideas of improved liveability and community outcomes in Frankton (from community engagement), but significant general traffic increases do not.
	Land	-2	Significant land acquisition required for freight lanes, freight hub, new corridors and bridges.

3 Cost, Constructability & Operations

Constructability		-1	The scale of road upgrades may require engineering and construction of this programme to be spaced out for resourcing reasons.
Technical Feasibility		-1	Programme is technically feasible, and able to be designed and constructed using the regional labour force. Land use planning changes (freight hub at Lake Hayes) could present a challenge.
Operational Requirements	Maintainability	-2	Increased maintenance required for extra bridge provisions, storm water treatment on SH 6 and road capacity increases.

Affordability		-2	The construction of new and upgraded road infrastructure presents a significant up-front capital cost. These improvements may not all align with the 2018-21 GPS priorities.
Cost	**High level cost estimate (CAPEX)**		$$$$
	High level cost estimate (OPEX)		$$$$
	Property Acquisition		$$$$. Large numbers of properties are required.

Option 7: Do Maximum

Option Description:

The Do Maximum programme option does everything for everyone. It provides new corridors, more roads and carparks, more public transport and a river crossings for general traffic, public transport and active modes.

This programme has a heavy infrastructure focus. New corridors and capacity improvements to existing corridors and intersections allow existing high speeds on state highways to be retained. It requires underpasses to be constructed for state highways.

Public transport improvements are implemented and an orbital bus route constructed. These improvements are centred around bus prioritisation measures and Park & Ride facilities.

A mass transit network is developed within ten years to accommodate growth in visitor movements.

Short-Term: 2019-2024	Medium-Term: 2024-2030	Long-Term: 2030-2050
Predominantly localised optimisation and safety improvements and key arterial and intersection upgrades, plus investigating new routes and planning for mass transit. Public transport and planned active modes improvements will help increase the numbers travelling on the existing corridors with the support of various travel demand management measures to drive behaviour change. More parking buildings are built and logistics are optimised freight consolidation hubs.	The existing network is optimised by adding lanes and new routes, in conjunction with a new gondola line built between Queenstown and Frankton. Investment in public transport and active modes continue. Transport orientated development is promoted to provide residents with greater access to a range of transport options to reduce travel for activities on key corridors.	New roads from large residential areas are built to accommodate growth. Freight efficiency is being addressed by separate freight roads and priority lanes. The gondola service is expanded into new growth areas.
Road and Infrastructure Upgrades: • Reduced speed limits in suburban areas (local roads) • Minor safety and efficiency improvements to the network • Upgrades to key arterial corridors and roundabouts (grade separation)	**New Corridors:** • Additional vehicle bridge over Shotover River • New primary arterial feeders through new growth areas • New route provides south of Kawarau River link with Lake Hayes/Shotover Country and connecting to Frankton from the south east	**New Corridors:** • New connection built to south east of Frankton to bypass the town for vehicles heading south east between SH6 and Kingston Road
Mass Transit: • A 30 year mass transit strategy is developed • Planning for mass transit between Frankton and Queenstown	**Road and Infrastructure Upgrades:** • Intersection upgrades to improve safety on key corridors • Re-design key road intersections to increase capacity and efficiency of movement • Rationalise access points to arterial road corridors • Storm water treatment devices installed on key corridors to collect road run-off • Increase capacity of key arterials (new lanes, 4-lanes) • More road space allocated buses at peak travel times , clearways	**Road and Infrastructure Upgrades:** • Freight priority lanes are built along the rest of the state highway network • Provide more car parks in Queenstown. 3000 carparks in Queenstown Town Centre by 2048
Walking and Cycling: • Frankton cycling network is completed • Queenstown/ Frankton trail off-road cycle lanes are paved • Improved walking and cycling facilities/ crossings in residential areas	**Network Changes:** • Road network optimisation for buses & smart transport corridors	**Network Changes:** • Network optimisation continues
Travel Demand Management: • Travel demand management measures to promote multi-modal use • Car parking buildings encouraged	**Freight:** • Freight priority lanes are built between freight hub and industrial or commercial areas (Quail Rise) • Freight hub built near Lake Hayes	**Public Transport:** • New areas of intensification are provided with increased services • Public transport services extended further to major growth areas • The buses, public transport infrastructure are all upgraded
Public Transport: • Ferry or water taxi public transport service • Free orbital bus route within Frankton • Provide new bus connections to/from Frankton • Ferry terminal/new wharf built in Frankton • Public transport improvements implemented (prioritisation) but NO high occupancy vehicle or bus priority lanes are installed • Undertake a significant review of the services including frequency, coverage, routes and price with a view to updating the services provided	**Mass Transit:** • Ferry network is upgraded and expanded • Gondola line built linking Frankton and the Queenstown Town Centre	**Mass Transit:** • Service is expanded to new growth areas
Freight: • Logistics optimisation- freight consolidation hub	**Walking and Cycling:** • Active modes network is enhanced within Frankton to connect to new land use developments • More street furniture provided for pedestrians • Additional crossing points along areas with strong pedestrian or public transport presence, and active mode grade separation at state highways	**Walking and Cycling:** • The cycling and walking network is separated from high traffic corridors along key routes • The quality and connections continue to be improved
Land Use Planning: • Transport orientated development is promoted along key public transport routes, but more carparks are also promoted and developed. Intensification around proposed mass transit stations. • Developers are required to contribute to public transport infrastructure	**Public Transport:** • More bus interchanges and facilities in both urban and residential areas • Development of Park & Ride facilities • Upgrade of facilities to consider accessibility and weather • Match services with events, schools and employment hubs • Public transport facilities and express services are built at the new Quayside ferry terminal	**Freight:** • Separate freight corridor built alongside SH6
Investment Outcome	**Investment Outcome**	**Investment Outcome**
Private vehicle use stays high. Travel demand management measures are ineffective as travel by private vehicle is fast, convenient and parking provisions have increased. Transport orientated development and public transport improvements gives households greater access to transport choice but this is not reflected in uptake statistics. Some freight volumes in the study area reduced. Speed limit reductions on local roads increase liveability in some areas in the short term.	Mass transit increases people throughput between Queenstown and Frankton, and improves travel times for all transport modes. Mass transit is predominantly used by visitors as a tourist activity. Travel by private vehicle is one of the cheapest and is the easiest travel option for residents. More lanes improve travel times for general traffic, but also increase community severance. Uptake of public transport is low.	Access to transport choice improved as gondola service expands to new growth areas. Private vehicle is the mode of choice, active modes used for some short trips but mainly for recreational purposes. Liveability of Frankton slightly improved by freight corridors and bypass corridors. High traffic volumes cause negative safety outcomes. Large amounts of road infrastructure negatively effect liveability indicators and increase community severance.

1 Investment Objectives

Reliability and Travel Times	Safety	Multi Modal Access and Use	Community Severance and Liveability
KPI 1: Average travel times between key locations for general traffic, public transport and cycling KPI 2: PT Travel time reliability KPI 3: Level of Service at a projected throughput of people KPI 4: Throughput of people (walking, cycling, general traffic and public transport) and goods (freight) on key corridors	KPI 1: Deaths and serious injuries KPI 2: Perception of safety surveys	KPI 1: Public transport as a percentage of all travel movements KPI 2: Active modes as a percentage of all travel movements KPI 3: Households within 800m of competitive and convenient travel choices.	KPI 1: Community connectedness/ community severance KPI 2: Frankton as a visitor gateway KPI 3: Air and water quality KPI 4: Connected network for active modes
Active Modes: 2 / Public Transport: 3 / General Traffic: 2	-1	-1	-1
Corridor and intersection capacity improvements and development of mass transit means average travel times and levels of service are improved for all modes of transport. Public transport travel times are more reliable due to mass transit infrastructure, greater route throughput capacities and less congestion at convergence points in the transport network. There is potentially greater throughput of people on SH 6 and SH 6A, via private vehicle and mass transit. In the long-term there is potential for resident single occupancy vehicle use to remain high, but it is expected many visitors will use mass transit facilities keeping throughput of people on key corridors high, and travel times reliable.	Public transport uptake supports safety outcomes. There could be safety benefits and safety perception improvements of redistributing some general traffic volumes onto mass transit but uptake is low. Some minor safety benefits and safety perception improvements of completing the Frankton cycling network and separate Queenstown and Frankton Track cycleways. High speed area through Frankton impacts perceptions of safety.	Little incentive to change mode outside of Frankton (free orbital bus route) due to the relative ease of private vehicle travel and the development of more car park facilities in Queenstown. Some uptake for mass transit services mostly made up of the visitor population. Active mode improvements and increased network coverage result in an increase in active mode uptake for short to medium distance trips, and recreational trips. Significant increase of households within 800m of competitive and convenient transport options in the form of PT, mass transit, and walking and cycling.	Community severance issues potentially worsened with wider corridors and greater vehicle throughput on SH 6, partly offset by additional walking and cycling crossing points. The wider corridors and increased traffic may also impact visitor perceptions of Frankton, and their wayfinding ability. Air and water quality is expected to decline as traffic volumes increase. A connected network for active modes and upgrades to pedestrian crossing points along SH6 provide some liveability improvements. New corridor connection from Shotover Country to Kingston Road will allow vehicles to bypass Frankton residential areas, however this is not the predominant regional travel movement through the study area.

2 Environmental & Social Impacts

Landscape and Visual Effects	Landscape	-3	Additional roading infrastructure, especially corridor widening, freight lanes and bridge construction has high landscape impacts. The construction of mass transit facilities has high landscape impacts also.
	Visual Amenity	-3	High visual impacts of new bridge structures, freight lanes, and wider corridors. High visual impacts of mass transit lines between Queenstown and Frankton, and Frankton and Lake Hayes.
Environment	Air Quality Note: Air and water quality also accounted for in Investment Objective 4.	-2	The attractiveness of private vehicle use remains a key obstacle to behaviour change/ mode shift. In the long run increased general traffic and moderate mode shift could make emission targets difficult to realise, and negatively impact the natural environment.
	Water Quality and ecology Note: Air and water quality also accounted for in Investment Objective 4.	-2	Increased general traffic with moderate mode shift toward active modes and mass transit could increase the levels of hydrocarbons and metals in road sediment run-off in the study area. Some of these impacts are mitigated by the installation of sumps on SH 6.
	Noise	-2	Increases in general traffic along SH 6 has potential to create noise impacts for residential areas near the state highway corridor. Areas likely to be impacted are in the south of the study area near Kawarau Falls Bridge, and recent and proposed developments at Quail Rise. Lower speeds in residential areas (local roads like Robertson St) could slightly reduce vibration and noise. Noise and vibration impacts from gondola unknown but expected to be minimal.

Social, Cultural and Heritage	Cultural		
	Archaeological and built heritage		No known areas of archaeological or built heritage effected.
	Visitors	-1	Provision of improved multi-modal connections, and mass transit facilities will improve visitor access within Queenstown. In the medium-term mass transit facilities could be marketed as a tourist activity. Roads and infrastructure have significant impacts on the natural environment which is not favourable to visitors.
	Human Health	-1	Some improvement to human health with completion/ expansion of Frankton cycleway network, and separated cycle paths. Improved access to social connections in the community. These impacts are more than offset by the negative human health impacts of vehicle emissions.
	Public and Stakeholders	-2	Programme aligns with stakeholder and public's desire for addressing congestion and travel time reliability issues in the study area. Reduced freight vehicles in study area and improved SH 6 pedestrian crossings and community connections support the ideas of improved liveability and community outcomes in Frankton, but significant general traffic increases do not. The significant costs associated with this programme of works will be unsatisfactory to stakeholders and residents. Only some interventions align with the current GPS 2018-21.
	Land	-3	Significant land acquisition required for mass transit construction, freight lanes, freight hub, new corridors and bridges.

3 Cost, Constructability & Operations

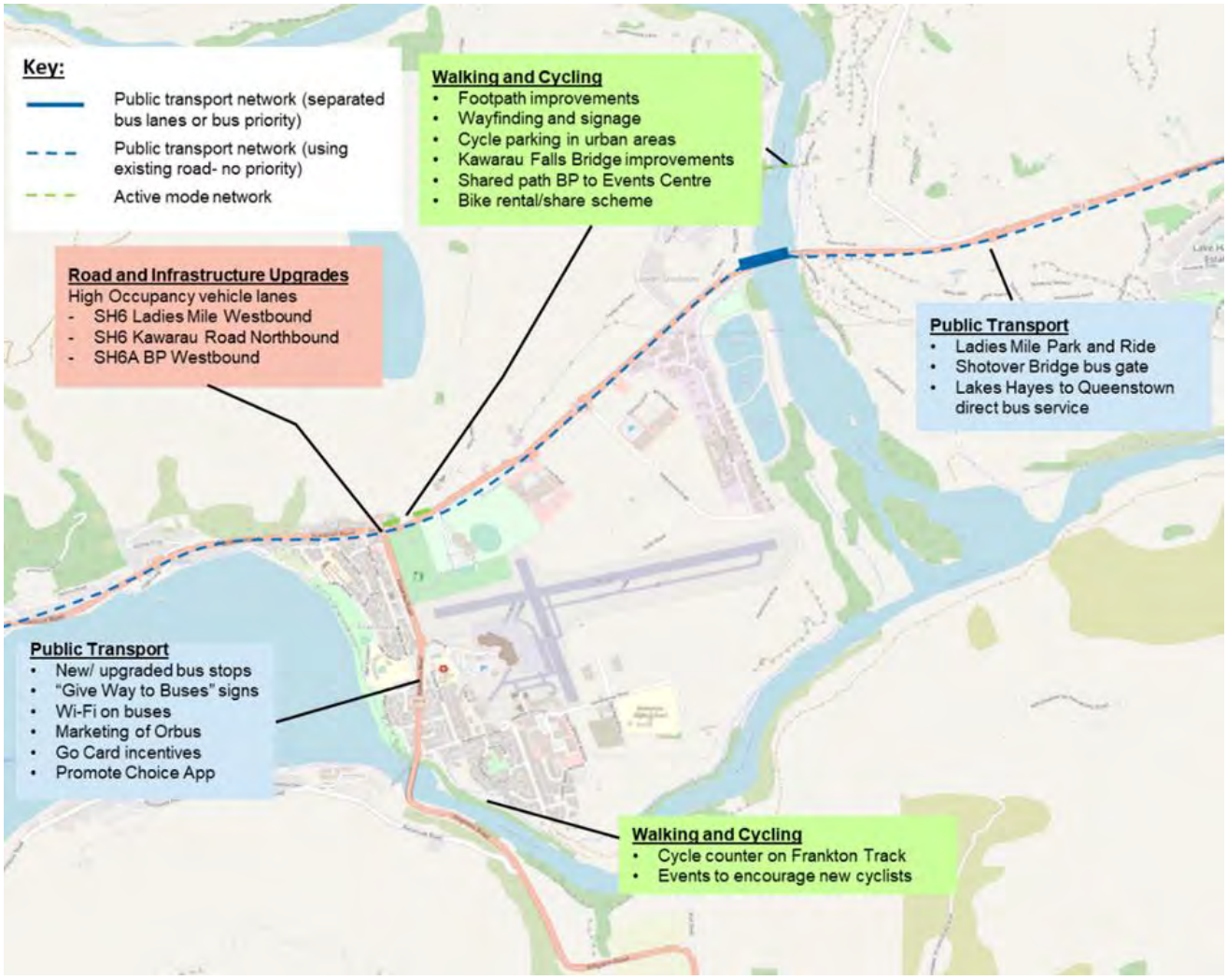
Constructability		-3	Likely to have engineering and construction challenges. Likely to have severe resourcing constraints.
Technical Feasibility		-2	Programme is technically feasible, will have to be designed and constructed using both the regional labour force and experience not currently available in New Zealand (for mass transit- gondola). Large programme of works that would require a wide pool of resources and skillsets.
Operational Requirements	Maintainability	-3	High levels of maintenance required for mass transit services, extra bridge provisions, storm water treatment facilities on SH 6 and road capacity increases.

Affordability		-3	This programme is considered to be unaffordable. Major components do not align with GPS 2018-21 priorities.
Cost	**High level cost estimate (CAPEX)**		$$$$$
	High level cost estimate (OPEX)		$$$$$
	Property Acquisition		$$$$$. Properties required for new corridor, mass transit infrastructure and bridge links.

Appendix G - Short List Options

Option 1: Do Minimum

The base case or do minimum for the Te Kirikiri Frankton ITPBC is described as planned or funded investments. These interventions were sourced from a rapid targeted interventions spreadsheet provided by the NZ Transport Agency via email on Friday 14th June 2019.



Do minimum programme

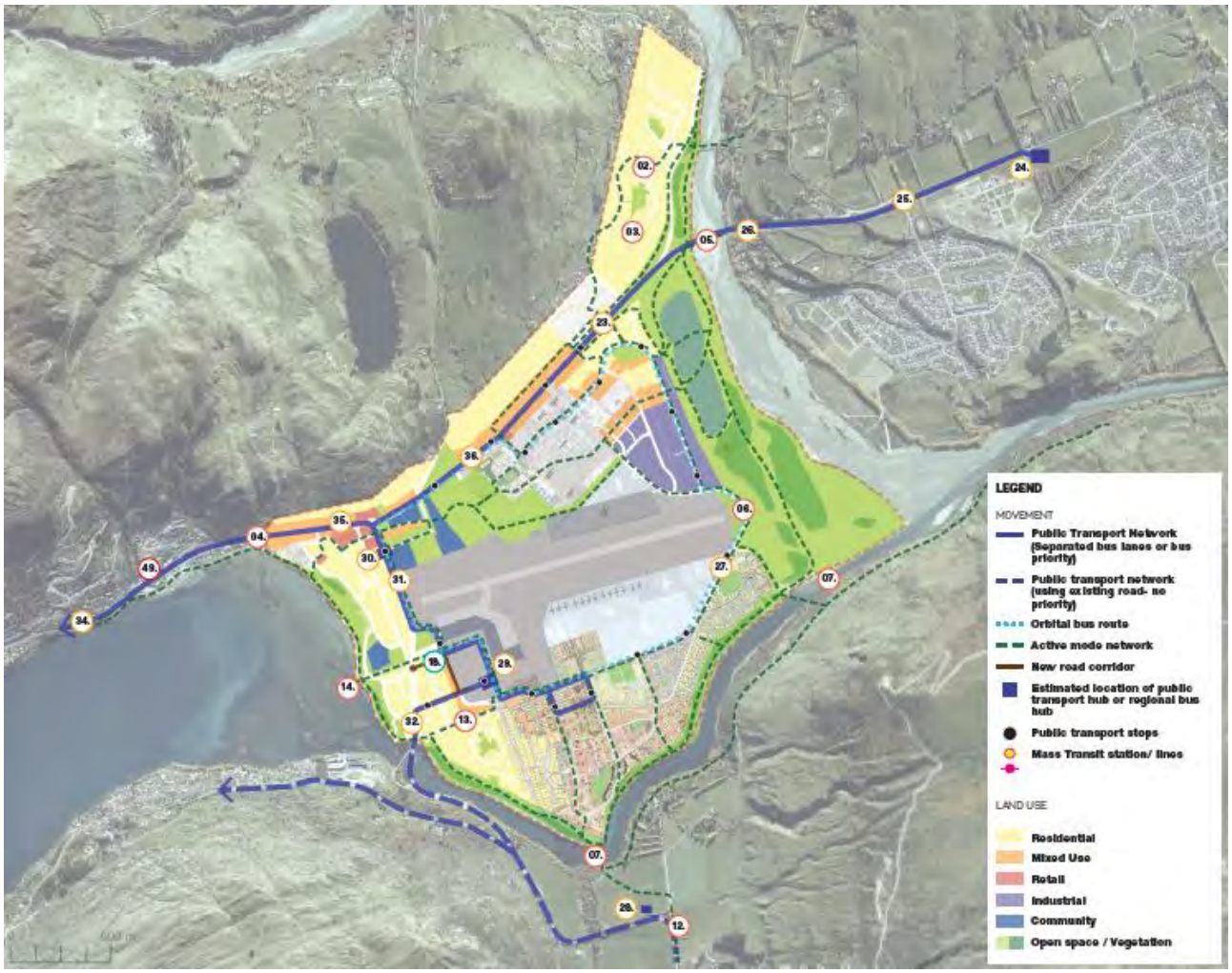
Theme	Proposed Interventions
Public transport	• State Highway 6 Ladies Mile Westbound high occupancy (bus prioritisation) vehicle lane Howards Drive to Shotover Bridge including Stalker Rd (bus prioritisation) high occupancy vehicle lane (outside scope area but provides benefits within Frankton) • Shotover Bridge bus gate

Theme	Proposed Interventions
	• State Highway 6 Kawarau Road northbound bus prioritisation • State Highway 6A BP westbound departure bus prioritisation • Increase marketing of the Orbus network to maximise mode shift
Active modes	• Active travel wayfinding signage through Frankton, Lake Hayes and Shotover Country, Fernhill to Queenstown via the forest tracks • Active mode improvements at Kawarau Falls Bridge • Shared path from State Highway 6 and State Highway 6A intersection to Events Centre/ Five Mile
TDM	• Encourage local businesses to develop workplace travel plans

There are no interventions planned in the medium and long-term for the do minimum programme option.

Option 3: Public transport (bus / trackless tram prioritisation) and active modes

Programme Option 3: Public transport and active modes



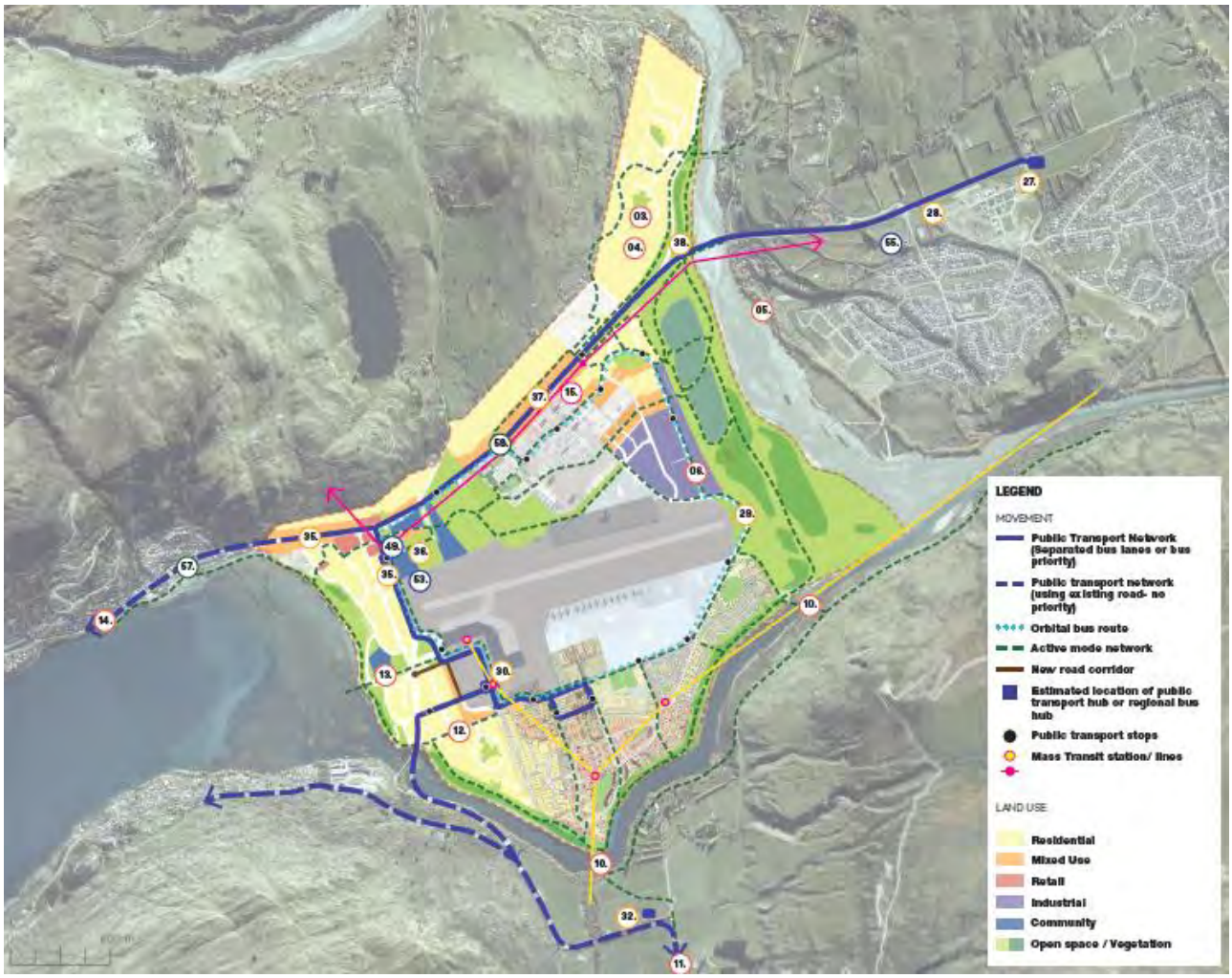
Programme 3 Interventions (includes map reference)

Theme	Proposed Interventions
Public transport	• Connected network of bus only lanes constructed in Frankton Trackless tram on key routes constructed within 10 years, note route marked is indicative only (23) • Westbound bus lane from Howards Drive to the Shotover Bridge, widen existing shoulder and include bus gate at Shotover Bridge (25) • Bus priority on existing bridge in short to medium term - Potential one lane signalised public transport bridge (with active mode connection) constructed over the Shotover River if demand requires (not included in cost estimate of economic assessment (26) • Orbital bus route within Frankton – Primarily utilises existing or proposed bus / trackless tram infrastructure (27) • Development of Park & Ride facility near Boyd Road intersection (28) (outside scope area but provides benefits within Frankton) • Regional coach hub (29) • Public transport commuter transfer (super stop) hub relocated (30) • Northbound bus lane from airport (Lucas Place) roundabout to BP roundabout, widen existing shoulder (31) • Public transport prioritisation at SH6 and Humphrey Street intersection (32) • Frankton Arm water service (33) • SH6/SH6a intersection to Queenstown Town Centre bus/ trackless tram corridor (34) • Westbound bus/ HOV lane from SH6/ SH6a intersection to Yewlett Cres merge, reallocate existing lanes with no additional widening required (35) • SH6 Frankton Flats public transport priority lanes (36) • Bus prioritisation implemented throughout the study area (37) • Increased marketing of the Orbus network (38) • Operational improvements to Orbus to provide connectability at Frankton Hub (39) • Timetable adjustments to suit commuters (40) • Improved information provision through apps providing real time information (41) • Work with event promoters to include Orbus travel (42) • GoCard incentives at crucial travel times (43) • New areas of intensification are provided with increased services e.g. Henley Farm to Queenstown via Frankton (44) • Upgrade of public transport facilities to consider accessibility and weather (45) • Match public transport services with events, schools and employment hubs (46) • Public transport technology is invested in to improve efficiency and reduce cost (47)

Theme	Proposed Interventions
	• Public transport facilities and express services are built in Frankton and surrounds (48)
Roading	• Reduce speed limit to 50 km/h on SH6 between Kawarau Falls Bridge and Quail Rise (1) • New road connections to the airport – Lucas Place realignment (18) • Signals on SH6A at the Marina intersection (49) • Stewart Street extension through campground and closure of Lakefront Road (50) • Direct Market Street extension to Glenda Drive (51)
Active modes	• Pedestrian network is developed and upgraded in areas of growth i.e. Quail Rise South (2) • Improve active mode connection between Quail Rise South and Frankton Flats through Quail Rise South development (3) • Upgrading of the existing Queenstown/ Frankton track for cycling and walking (4) • Potential active modes crossing if one lane PT bridge constructed over Shotover River (5) • Complete separated active mode orbital path within Frankton (6) • Active mode bridges within 10 years (7) • Pedestrian network is developed across the district to connect with Frankton and upgraded in areas of growth (8) • Frankton cycling network is completed and connected to the wider Queenstown trails (9) • Walking and cycling education programmes (10) • Incentivise active travel with public transport credits (11) • Shared path to Jack's Point (12) • Robertson Street becomes primarily used for active modes (13) • Lake Link - Direct active mode access from airport to lakefront and ferry (14)
TDM	• Safety promotion and education - safe walking and cycling routes to schools (19) • Workplace, airport and school travel planning (20) • Car parking policy in line with strategy implemented/traveller information improved (21) • Public transport services are heavily advertised and prices reduced (22)
Land Use Planning	• Transport orientated development is promoted along key public transport routes (15) • Require new developments to provide high quality accessible facilities for Active Travel mode users and contribute to public transport infrastructure (16) • Minimise development car parking requirements (17)

Option 4: Mass transit (gondola) within 10 years and active modes focus

Programme Option 4: Mass transit (gondola) within 10 years and active modes focus



Programme 4 Interventions (includes map reference)

Theme	Proposed Interventions
Public transport	• Development of 200 space Park & Ride facility at Ladies Mile (27) • Westbound bus lane from Howards Drive to the Shotover Bridge, widen existing shoulder and include bus gate at Shotover Bridge (28) • Orbital bus route within Frankton - Bus only lanes developed for orbital bus route and other bus services travelling through Frankton (29) • Regional bus hub (30) • Development of Park & Ride facilities east of Ladies Mile, within Frankton, and in feeder areas of Jack's Point, Arrowtown - Upgrade of public transport facilities to consider accessibility and weather (31)

Theme	Proposed Interventions
	• Development of Park & Ride facility at new sports fields (32) • Ferry services expanded at Quayside (33) • Frankton Arm water service - 2 services per hour (34) • Northbound bus lane from airport (Lucas Place) roundabout to BP roundabout widen existing shoulder - Westbound bus/ HOV lane from BP roundabout to Yewlett Cres merge - reallocate existing lanes with no additional widening required (35) • Public transport transfer (super stop) hub relocated (36) • Public transport prioritisation on SH 6 and SH 6A within Frankton - via traffic signal pre-emption, prioritisation of buses at bridges (37) • Bus priority on existing bridge (38) • Increased marketing of the Orbus network (39) • Operational improvements to Orbus to provide connectability at Frankton Hub (40) • Timetable adjustments to suit commuters (41) • Timetables with route maps posted at every stop (42) • Put 'Give Way to Buses' signs on the back of all buses (43) • Improved information provision through apps providing real time information (44) • Work with event promoters to include Orbus travel (45) • GoCard incentives at crucial travel times (46) • New areas of intensification are provided with increased services, e.g. Henley Farm to Queenstown via Frankton (47) • More public transport interchanges are built (48) • Gondola to Queenstown (49) • Ferry network is upgraded and expanded (50) • Gondola line built linking Lake Hayes Estate, Frankton and Queenstown Town Centre (51) • Gondola service can be expanded to new growth areas (52) • Travellator under consideration between mass transit stations (53) • Gondola service is expanded to new growth areas (54) • Mass transit line going to a Park & Ride facility at Lake Hayes Estate (55) • Integration of Gondola network with Remarkables Park (56)
Roading	• Road network optimisation to better accommodate buses on the local network (1) • Reduce speed limits to 50 km/h on SH 6 between Kawarau Falls Bridge and Quail Rise (2) • New road connections to the airport (19)

Theme	Proposed Interventions
	• Lucas Place Re-alignment (20) • Relocation or reconfiguration of hospital and St John's Ambulance site (21) • New roundabout on SH6 (22) • Signalise Hawthorne Drive / SH6 intersection (57) • Signals on SH6A at the Marina intersection (58)
Active modes	• Pedestrian network is developed and upgraded in areas of growth i.e. Quail Rise South (3) • Improve active mode connection between Quail Rise South and Frankton Flats through Quail Rise South development (4) • Active mode bridges within 5 years (5) • Complete separated active mode orbital path within Frankton (6) • Frankton cycling network is completed and connected to the wider Queenstown trails (7) • Walking and cycling education programmes (8) • Incentivise active travel with public transport credits (9) • Active mode bridges (10) • Shared path to Jack's Point (11) • Robertson Street becomes primarily used for active modes (12) • Direct active mode access from airport to lakefront and ferry (13) • Upgrading of the existing Queenstown/ Frankton track for cycling and walking (14)
TDM	• Safety promotion and education - safe walking and cycling routes to schools (23) • Workplace and school travel plan (24) • Parking policy in line with strategy implemented/traveller information improved (25) • Public transport services are heavily advertised, and prices reduced (26)
Land Use Planning	• Transport orientated development is promoted along key public transport routes (15) • Intensification around proposed mass transit stations (16) • Minimise development parking requirements (17) • Developers are required to contribute to public transport infrastructure (18)

Common short list programme elements

As outlined above there are commonalities between programmes 3 and 4. Many of these common elements were a result of the stakeholder long list assessment, where stakeholders added key interventions from the community access and safety long list options to both programme options 3 and 4. Common themes include:

- Higher bus frequency within the first ten years

- Park and ride facilities to reduce capacity constraints at key pinch points such as SH bridges
- Ferry services (of varying frequency) to complement the existing public transport network
- Higher residential density levels in Te Kirikiri Frankton to support a mass transit spine
- A completed active modes network that connects key land uses in the area
- An orbital bus service promoting greater connectivity within Te Kirikiri Frankton

Appendix H - Short List MCA Details

Short list programmes MCA Assessment Summary- Criteria One Investment objective 1

Investment Objective	Source	Baseline - Do Minimum	Programme 3	Programme 4
Investment objective 1: Reduce severance, transport effects on the environment, and improve the liveability and attractiveness of Frankton				
KPI 1.1 Community accessibility (severance)		- - Lack of speed restrictions and crossing points to accommodate resident and visitor growth	+ + Reduced speeds in residential areas and areas of amenity increase community connectedness. New pedestrian and cycling crossing points at key locations in Frankton increases liveability and reduces severance for residents. Crossing points along SH6 in north of study area reduce severance and safety concerns of pedestrians.	+ + Reduced speeds in residential areas and areas of amenity increase community connectedness. Mode shift for travel on key corridors such as SH6 will somewhat improve community connectedness. Crossing points along SH6 in north of study area reduce severance and safety concerns of pedestrians. A connected network for active modes will provide some liveability improvements.

Investment Objective	Source	Baseline - Do Minimum	Programme 3	Programme 4
Number of pedestrian crossing points within 200m of residential/ commercial/retail catchments on key routes	Masterplan Do minimum information.	2018: 2 signalised crossings (SH6) 2028: 2 signalised crossings (SH6) 2048: 2 signalised crossings (SH6) No improvement in crossing facilities from what is currently provided. Deterioration in crossing facilities	2018: 2 signalised crossings (SH6) 2028: 6 signalised crossings, 1 active mode bridge crossings 2048: 6 signalised crossings, 1 active mode bridge crossings Significant crossing facility improvements in the medium-term, greatly improving connectedness of the community.	2018: 2 signalised crossing (SH6) 2028: 6 signalised crossings, 2 active mode bridge crossings 2048: 6 signalised crossings, 1 active mode bridge crossings Significant crossing facility improvements in the medium-term, greatly improving connectedness of the community.
KPI 1.2 Air and water quality (environment)		- - In the long run increased general traffic could make emission targets difficult to realise.	+ + Uptake of public transport and active modes, and reduced speed limits on SH6 will reduce negative environmental impacts significantly against the base case.	+ + Uptake of public transport and active modes, and reduced speed limits on SH6 will reduce negative environmental impacts significantly against the base case.
Reduced CO2 emissions costs from transport (measure- vehicle KMs travelled (general traffic and heavy commercial vehicles) / vehicle Hours travelled)	Transport model - VKT to be received	2018: 0 2028: 0 2048: 0	2018: 0 2028: $22,025 2048: $73,056	2018: 0 2028: 0 2048: $14,611

Investment Objective	Source	Baseline - Do Minimum	Programme 3	Programme 4
Reduced nitrogen dioxide emissions Does not take into account shift from petrol to electric vehicles. Baseline based on observed levels currently in Auckland.	Queenstown nitrogen dioxide monitoring station NZ Transport Agency, March 2015, 'Figure 41: Maximum, minimum and average NO2 annual values in Queenstown', Ambient Air Quality (Nitrogen Dioxide) Monitoring Network Annual Report 2007- 2013, retrieved 07 Jan 2019, from https://www.nzta.govt.nz/assets/resources/air-quality-monitoring/docs/air-quality-monitoring-report-2007-2013.pdf.	2018: 19 µg/m3 (2013- assume no change from 2013) 2028: Est. 25 -30 µg/m3 2048: Est. 35 - 40 µg/m3 Nitrogen dioxide emissions continue to increase as population and visitor numbers grow and there is limited mode shift to PT or active modes.	2018: 19 µg/m3 (2013- assume no change from 2013) 2028: Est. 19 - 25 µg/m3 2048: Est. 19 - 29 µg/m3 Continued uptake in PT and active modes in the medium and long term as populations increase allows nitrogen dioxide vehicle emissions to remain static or only increase slightly. These increases are modest in relation to the do minimum.	2018: 19 µg/m3 (2013- assume no change from 2013) 2028: Est. 19 - 25 µg/m3 2048: Est. 19 - 29 µg/m3 Continued uptake in PT and active modes in the medium and long term as populations increase allows nitrogen dioxide vehicle emissions to remain static or only increase slightly. These increases are modest in relation to the do minimum.
KPI 1.3 Quality of Life (liveability)		- Slight deterioration in long-term in residents who participate in community due to increasing severance issues	+ + Improvements in residents participating in activities in the neighbourhood with increased access to social opportunities and connectedness	+ + Improvements in residents participating in activities in the neighbourhood with increased access to social opportunities and connectedness
Survey: percentage of residents who feel connected and a sense of community in Frankton	Queenstown Quality of Life Survey 2018: Our belonging in the district neighbourhood and community – Q) I participate in activities within my neighbourhood https://www.qldc.govt.nz/assets/Uploads/Our-Community/Quality-of-Life/QLDC-Quality-of-Life-2018-Report.pdf	2018: 50% of Locals agree or Strongly agree 2028: Est.50- 55% 2048: Est. 48- 52% Some connection improvement in the medium term with active travel signage and shared path from BP to the Events Centre/ Five Mile. Decrease in the long-term with no further active mode investments.	2018: 50% of Locals agree or Strongly agree 2028: Est. 65 - 70% 2048: Est. 70 - 80% Significant increase in locals who participate in activities within their neighbourhoods in the medium-term with improved active mode connections and a complete network. Further increases in long-term as facilities upgraded in areas of growth.	2018: 50% of Locals agree or Strongly agree 2028: Est. 65 - 70% 2048: Est. 70 - 80% Significant increase in locals who participate in activities within their neighbourhoods in the medium-term with improved active mode connections and a complete network. Further increases in long-term as facilities upgraded in areas of growth.

Investment Objective	Source	Baseline - Do Minimum	Programme 3	Programme 4
KPI 1.4 Visitor gateway (attractiveness)		- - Limited viable transport options for visitors which negatively affects their view of the transport network and Frankton as a gateway to the district	+ + Frankton viewed favourably by visitors as a gateway with ample transport options and services. Multi-modal options and wayfinding available from the airport is a great improvement on the base case for visitors.	+ + Frankton viewed favourably by visitors as a gateway with ample transport options and services. Multi-modal options and wayfinding available from the airport is a great improvement on the base case for visitors.
Visitor survey: Average visitor response to local transport options and services (out of 10)	https://www.queenstownnz.co.nz/assets/Uploads/Visitor-Experience-Queenstown-Q2-2018.pdf Average rating derived by averaging NZ Visitors, Australian visitors, Other international visitors ratings.	2018: Average Visitor Ratings – 8.1 (Q2 2018) 2028: Est. Average Visitor Ratings 7.1 - 7.6 2048: Est. Est. Average Visitor Ratings 5.2 - 6.5 Deterioration of visitor transport satisfaction levels as lack of connected and viable options. Viable visitor transport options decrease in the long-term with population growth causing increased congestion.	2018: Average Visitor Ratings – 8.1 (Q2 2018) 2028: Est. Average Visitor Ratings 8.4 - 8.9 2048: Est. Average Visitor Ratings 8.7 - 9.3 Significant improvements to visitor satisfaction with transport options in Queenstown in medium and long-term with active mode link direct from airport to lakefront and convenient high capacity public transport options.	2018: Average Visitor Ratings – 8.1 (Q2 2018) 2028: Est. Average Visitor Ratings 8.5 - 9 2048: Est. Average Visitor Ratings 8.8 - 9.4 Significant improvements to visitor satisfaction with transport options in Queenstown in medium and long-term with active mode link direct from airport to lakefront and convenient and iconic gondola options.

Short list programmes MCA Assessment Summary- Criteria One Investment objective 2

Investment Objective	Source	Baseline - Do Minimum	Programme 3	Programme 4
Investment objective 2: Improve access to and use of multi-modal transport options for people of all ages and abilities				
KPI 2.1 Frankton households within 800m of high frequency and convenient travel choices		- - There will be a small amount of cycling improvements along SH6 near Queenstown Events Centre. However the active mode network in the study area will be largely unconnected with varying levels of service to users.	+ + The number of households within 800m of convenient and competitive travel choices is increased with expansion and provision of a connected active modes network and completion of a trackless tram service.	+ + The number of households within 800m of convenient and competitive travel choices is increased with expansion and provision of a connected active modes network and completion of a gondola service plus bus services.
Households within 800m of a high quality cycling route (sealed and separated from pedestrians and motor traffic)	Qualitative estimate Limited paved active mode facilities in Frankton 2018. Estimated 5% of households have access to paved active mode facilities.	2018: Est. 5% of Frankton households 2028: Est. 15 - 20% of Frankton households 2048: Est. 15 - 20% of Frankton households Only separated paved cycling facilities in Frankton parallel to SH6 near Five Mile in 2018. Some increase in 2028 with Shared path from BP to QEC/ Five Mile. No further investment made.	2018: Est. 5% of Frankton households 2028: Est. 60 -75% of Frankton households 2048: Est. 70 - 80% of Frankton households Significant increase in household access to active mode facilities in study area.	2018: Est. 5% of Frankton households 2028: Est. 60 - 75% of Frankton households 2048: Est. 70 - 80% of Frankton households Significant increase in household access to active mode facilities in study area.

Investment Objective	Source	Baseline - Do Minimum	Programme 3	Programme 4
Households within 800m of a high frequency public transport service (min every 15mins)	Qualitative estimate 1 service currently considered high frequency (Service 1 Fernhill to Remarkables Park)	2018: Est. 40% of Frankton households 2028: Est. 30 -35% of Frankton households 2048: Est. 25 - 30% of Frankton households Only limited households have access to high frequency bus routes. This proportion will decrease as resident numbers increase in areas not serviced by high frequency public transport.	2018: Est. 40% of Frankton households 2028: Est. 70 - 75% of Frankton households 2048: Est. 80 - 85% of Frankton households Increased proportion of households have access to high frequency public transport as trackless tram and public transport is invested in and transit oriented development occurs.	2018: Est. 40% of Frankton households 2028: Est. 70 - 75% of Frankton households 2048: Est. 80 - 85% of Frankton households Increased proportion of households have access to high frequency public transport as gondola and public transport is invested in and transit oriented development occurs.
KPI 2.2a Active modes as a percentage of all travel movements		- No change in active mode uptake percentage as the population grows, and facilities and infrastructure do not keep pace with growth.	+ + Patronage and mode share increases for active modes as investments increase accessibility of this mode of transport to more users.	+ + Patronage and mode share increases for active modes as investments increase accessibility of this mode of transport to more users.

Investment Objective	Source	Baseline - Do Minimum	Programme 3	Programme 4
Journey to work trips (mode share - census).	Census 2013	2018: 3.74% cycle, 12.30% walk for Frankton and Frankton East (Census 2013- assume no change from 2013) 2028: Est. 3 -5% cycle, 8-12% walk 2048: Est. 3 - 4% cycle, 8-12% walk short term active mode measures see minor uptake increases for active modes. No investment in these activities in medium or long term.	2018: 3.74% cycle, 12.30% walk for Frankton and Frankton East (Census 2013- assume no change from 2013) 2028: Est. 6-10% cycle, 10-15% walk 2048: Est. 8 - 12% cycle, 13 - 17% walk Increased long-term investment in active modes sees continued increased uptake of cycling and walking.	2018: 3.74% cycle, 12.30% walk for Frankton and Frankton East (Census 2013- assume no change from 2013) 2028: Est. 6-10% cycle, 10-15% walk 2048: Est. 8 - 12% cycle, 13 - 17% walk Increased long-term investment in active modes sees continued increased uptake of cycling and walking.
KPI 2.2b Public transport as a percentage of all travel movements		**+** Increases in public transport patronage percentages initially with minor improvements and in the long term as congestion, impacts travel times for general traffic.	**+ + +** Patronage increases for public transport in all time periods. High capacity public transport interventions make PT travel more attractive to residents and visitors.	**+ + +** Patronage increases for public transport in all time periods. High capacity public transport interventions make PT travel more attractive to residents and visitors.

Investment Objective	Source	Baseline - Do Minimum	Programme 3	Programme 4
Overall PT mode share in Frankton	Census 2013	2018: 3.48% for Frankton and Frankton East (Census 2013- assume no change from 2013) 2028: Est. 5 - 6% 2048: Est. 5 - 8% Initial increase in PT uptake with short term improvements, then decline as network is not invested in further and population increase. There will be some uptake in long-term as travel by private vehicle is very congested.	2018: 3.48% for Frankton and Frankton East (Census 2013 assume no change from 2013) 2028: 10-15% 2048: 15-25% Continued increase in PT patronage uptake for residents and visitors.	2018: 3.48% for Frankton and Frankton East (Census 2013 assume no change from 2013) 2028: 10-15% 2048: 15-25% Continued increase in PT patronage uptake. Gondola services target visitors more than regular residential commuters.
Overall annual PT patronage levels in Queenstown	Orbus website. https://www.orc.govt.nz/public-transport/queenstown-buses	2018: 1,264,316 orbus/ public transport passenger trips Nov 2017 to Nov 2018 2028: Est. 1.75 - 2M orbus passenger trips per year or provided by TBC by WSP PT study 2048: Est. 4 - 5M orbus passenger trips per year	2018: 1,264,316 orbus/ public transport passenger trips Nov 2017 to Nov 2018 2028: 5-7.5 million 2048: 7.5-12.5 million	2018: 1,264,316 orbus/ public transport passenger trips Nov 2017 to Nov 2018 2028: 5-7.5 million 2048: 7.5-12.5 million

Investment Objective	Source	Baseline - Do Minimum	Programme 3	Programme 4
Daily use of public transport by locals (Quality of Life survey)	Transport section of Queenstown Quality of Life Survey 2018 Buses used daily by Locals. https://www.qldc.govt.nz/assets/Uploads/Our-Community/Quality-of-Life/QLDC-Quality-of-Life-2018-Report.pdf	2018: 4% (locals) use public transport daily 2028: Est. 4.5 - 6% (locals) use public transport daily 2048: Est. 6 - 10% (locals) use public transport daily Increased public transport use in short medium-term, less use in the long-term with no investment.	2018: 4% (locals) use public transport daily 2028: Est. 10-15% (locals) use public transport daily 2048: Est. 15-25% (locals) use public transport daily Increased public transport use in all periods by locals due to continued investment.	2018: 4% (locals) use public transport daily 2028: Est. 10-15% (locals) use public transport daily 2048: Est. 15-25% (locals) use public transport daily Increased public transport use in all periods by locals due to continued investment.

Short list programmes MCA Assessment Summary- Criteria One Investment objective 3

Investment Objective	Source	Baseline - Do Minimum	Programme 3	Programme 4
Investment objective 3: Provide safe transport choices and improve safety perception				
KPI 3.1 Reduce deaths and serious injury crashes (safe transport choices)		- Increased deaths and serious injuries as traffic volumes increase, and no speed restrictions and crossing improvements put in place.	+ + Safety outcomes are improved in Frankton between Grant Road to Kawarau Falls Bridge due to speed restrictions, safety promotion and education.	+ + Safety outcomes are improved in Frankton between Grant Road to Kawarau Falls Bridge due to speed restrictions, safety promotion and education.
Reduce deaths and serious injury crashes as a proportion of VKT	CAS Database	2018: 4 DSi between 2013 and 2017 2028: Est. 5 -7 DSi between 2024 and 2028 2048: Est. 5 -7 DSi between 2044 and 2048 Increased deaths and serious injuries as a proportion of VKT because there are no speed restrictions in study area and increased conflicts between transport users as vehicle numbers increase.	2018: 4 DSi between 2013 and 2017 2028: Est. 3-5 DSi between 2024 and 2028 2048: Est. 3 - 5 DSi between 2044 and 2048 DSi numbers will decrease as a proportion of VKT because of reduced speeds on SH6 and crossing improvements.	2018: 4 DSi between 2013 and 2017 2028: Est. 3 - 5 DSi between 2024 and 2028 2048: Est. 3 - 5 DSi between 2044 and 2048 DSi numbers will decrease as a proportion of VKT because of reduced speeds on SH6 and crossing improvements.
KPI 3.2 Reduce number of active mode crashes in study area (safe transport choices)		- Minimal provision for separated active mode facilities and no additional crossings increases crash risk.	+ + A connected active mode network around Frankton in the medium term links key land uses and improves safety outcomes and for active mode users. Additional crossing points on SH6 improve crash risks at intersections.	+ + A connected active mode network around Frankton in the medium term links key land uses and improves safety outcomes and for active mode users. Additional crossing points on SH6 improve crash risks at intersections.

Investment Objective	Source	Baseline - Do Minimum	Programme 3	Programme 4
Reduce number of active mode crashes as proportion of mode share	CAS Database all active mode crash types in study area.	2018: 2014 - 2018: 13 crashes 2028: Est. 2024 - 2028: 15 - 17 crashes 2048: Est. 2044 - 2048: 25 - 35 crashes Increased active mode crashes as a proportion of mode share as number of cyclists/ pedestrians and general traffic increases and there are no speed reductions or improved crossing facilities on SH6.	2018: 2014 - 2018: 13 crashes 2028: Est. 2024 - 2028: 12 - 15 crashes 2048: Est. 2044 - 2048: 12 - 15 crashes Active mode crash numbers will decrease as a proportion of mode share because of reduced speeds on SH6 and improved crossing provisions.	2018: 2014 - 2018: 13 crashes 2028: Est. 2024 - 2028: 12 - 15 crashes 2048: Est. 2044 - 2048: 12 - 15 crashes Active mode crash numbers will decrease as a proportion of mode share because of reduced speeds on SH6 and improved crossing provisions.
KPI 3.3 Improve community perception of safety (safety perception)		- there are more negative perceptions of safety amongst locals as traffic volumes increase and there are no speed reductions or new crossing points added.	+ + There are safety perception improvements with reduced general traffic volumes (compared with the base case), and by completing the Frankton cycling network and separated cycleways. Crossing points and reduced travel speeds on SH6 improve perception of safety.	+ + There are safety perception improvements with reduced general traffic volumes (compared with the base case), and by completing the Frankton cycling network and separated cycleways. Crossing points and reduced travel speeds on SH6 improve perception of safety.
QLDC Locals survey: Transport - Is dangerous driving a problem?	Safety section of Queenstown Quality of Life Survey 2018: Our safety – Dangerous driving https://www.qldc.govt.nz/assets/Uploads/Our-Community/Quality-of-Life/QLDC-Quality-of-Life-2018-Report.pdf	2018: 41% (of locals) it's a significant problem, 31% (of locals) it's a moderate problem 2028: Est. 42 -45% (of locals) it's a significant problem, 32 - 35% (of locals) it's a moderate problem 2048: Est. 45 - 50% (of locals) it's a significant problem, 35 - 40% (of locals) it's a moderate problem Dangerous driving continues and negative responses increase as vehicle movements increase.	2018: 41% (of locals) it's a significant problem, 31% (of locals) it's a moderate problem 2028: Est. 25 - 30% (of locals) it's a significant problem, 20 - 25% (of locals) it's a moderate problem 2048: Est. 20 - 25% (of locals) it's a significant problem, 15 - 20% (of locals) it's a moderate problem Speed limit reduction and increased mode shift on State Highway 6 through Frankton	2018: 41% (of locals) it's a significant problem, 31% (of locals) it's a moderate problem 2028: Est. 25 - 30% (of locals) it's a significant problem, 20 - 25% (of locals) it's a moderate problem 2048: Est. 20 - 25% (of locals) it's a significant problem, 15 - 20% (of locals) it's a moderate problem Speed limit reduction and increased mode shift on State Highway 6 through Frankton

Investment Objective	Source	Baseline - Do Minimum	Programme 3	Programme 4
			improve local perceptions of safety.	improve local perceptions of safety.

Short list programmes MCA Assessment Summary- Criteria One Investment objective 4

Investment Objective	Source	Baseline - Do Minimum	Programme 3	Programme 4
Investment objective 4: Improve active mode network connectivity and comfort				
KPI 4.1 Connected network for active modes		- - There will be a small amount of cycling improvements along SH6 near Queenstown Events Centre. However the active mode network in the study area will be largely unconnected with varying levels of service to users.	+ + Walking and cycling is significantly invested in, and in the medium to long-term a high quality, connected active mode network is the result. New developments are provided with good active mode facilities to encourage travel by this form of transport for all new residents. Active mode bridges connect key areas of Frankton to surrounding areas.	+ + Walking and cycling is significantly invested in, and in the medium to long-term a high quality, connected active mode network is the result. New developments are provided with good active mode facilities to encourage travel by this form of transport for all new residents. Active mode bridges connect key areas of Frankton to surrounding areas.
XX kilometres of connected walking and biking facilities 1.2kms separated paved facilities 8.5kms of unsealed trails	Queenstown Trails Trust, length of tracks in Frankton. Frankton Track = 2kms, Twin Rivers Trail = 6.5kms https://queenstowntrail.co.nz/maps-and-trails/ 1.2km of sealed Queenstown Trail path parallel to SH6 (near Five Mile) - Google Maps.	2018: 1.2km paved facilities, 8.5kms of unsealed trails 2028: Est. 2.2 km separated paved facilities, 8.5kms of unsealed trails 2048: Est. 2.2 km separated paved facilities, 8.5kms of unsealed trails Slight medium term improvement with shared path from BP to Five Mile. Increasingly disconnected network as new areas are not	2018: 1.2 km paved facilities, 8.5kms of unsealed trails 2028: Est. 8 - 10 kms of paved facilities, 8 - 10 kms of unsealed trails 2048: Est. 10 - 12 kms of paved facilities, 10 - 12 kms of unsealed trails Current primary unsealed trails are paved and network connected within study area in medium term. Upgrades in areas of growth in long term maintain	2018: 1.2 km paved facilities, 8.5kms of unsealed trails 2028: Est. 8 - 10 kms of paved facilities, 8 - 10 kms of unsealed trails 2048: Est. 10 - 12 kms of paved facilities, 10 - 12 kms of unsealed trails Current primary unsealed trails are paved and network connected within study area in medium term. Upgrades in areas of growth in long term maintain

Investment Objective	Source	Baseline - Do Minimum	Programme 3	Programme 4
		provided with adequate active mode facilities.	a connected network as residential growth occurs.	a connected network as residential growth occurs.
KPI 4.2 Level of Service rating for active modes network (comfort)		- There are minor LoS improvements in the short-term but nothing scheduled beyond this. This is offset by poor levels of service for new areas of growth	+ + Significant active modes LoS improvements across all time periods with investment in network	+ + Significant active modes LoS improvements across all time periods with investment in network
	Austroads LoS Assessment (2015): Pedestrians LoS Assessment- footpath pavement conditions	Pedestrians LoS Assessment- footpath pavement conditions: 2015: Queenstown to Frankton LoS D Jack's Point to Frankton LoS F Lake Hayes to Frankton South LoS D 2048: Queenstown to Frankton LoS D Jack's Point to Frankton LoS F Lake Hayes to Frankton South LoS D	Pedestrians LoS Assessment- footpath pavement conditions: 2015: Queenstown to Frankton LoS D Jack's Point to Frankton LoS F Lake Hayes to Frankton South LoS D 2028: LoS A 2048: LoS A	Pedestrians LoS Assessment- footpath pavement conditions: 2015: Queenstown to Frankton LoS D Jack's Point to Frankton LoS F Lake Hayes to Frankton South LoS D 2028: LoS A 2048: LoS A
	Austroads LoS Assessment (2015): Cycling LoS Assessment- pavement ride quality.	Cycling LoS Assessment- pavement ride quality: 2015: Queenstown to Frankton LoS C Jack's Point to Frankton LoS F Lake Hayes to Frankton South LoS D 2048: Queenstown to Frankton LoS C Jack's Point to Frankton LoS F Lake Hayes to Frankton South LoS D	Cycling LoS Assessment- pavement ride quality: 2015: Queenstown to Frankton LoS C Jack's Point to Frankton LoS F Lake Hayes to Frankton South LoS D 2028: LoS A 2048: LoS A	Cycling LoS Assessment- pavement ride quality: 2015: Queenstown to Frankton LoS C Jack's Point to Frankton LoS F Lake Hayes to Frankton South LoS D 2028: LoS A 2048: LoS A

Short list programmes MCA Assessment Summary- Criteria One Investment objective 5

Investment Objective	Source	Baseline - Do Minimum	Programme 3	Programme 4
Investment objective 5: Improve transport system reliability and maintain travel times				
KPI 5.1 Average travel times between key locations at peak times between key locations (travel time reliability)		- Average travel times for public transport will improve slightly in the short term with the limited bus priority measures and bus lanes constructed. However, in the long term average travel times for PT will worsen. General traffic travel times will worsen significantly with predicted population and visitor growth and little incentive to mode shift. There may be some minor shifts to public transport (utilising Park & Ride) as general traffic travel times become more unreliable and if discounted fares for buses continue. Travel times for active modes will improve.	+ + There are slightly increased but predictable travel times for general traffic. Active mode and public transport average travel times are improved. Predictability of travel times for public transport and general traffic is improved. At the same time, travel time variance between public transport and general traffic is reduced. There are more people travelling through key locations on SH6 and SH6A particularly via the trackless tram service. Travel times for active modes will improve greatly.	+ There are slightly increased but predictable travel times for general traffic. Mass transit directly improves public transport reliability. It competes with single occupancy vehicle travel times where mass transit hubs exist but travel times are slower than the trackless tram option. Throughput of people on key corridors increased for all modes. Bus prioritisation is provided in the short term. Slightly increased travel times and travel time reliability is expected until mass transit is provided in year 10. Travel times for active modes will improve greatly.
PT - Fernhill (Lordens Place) to Frankton (Remarkables Park)	Orbus bus timetable scheduled travel time. AM Peak period. https://orc.govt.nz/public-transport/queenstown-buses	2018: 47 mins *Qualitative Assessment*	2018: 47 mins *Qualitative Assessment*	2018: 47 mins *Qualitative Assessment*

Investment Objective	Source	Baseline - Do Minimum	Programme 3	Programme 4
PT - Lake Hayes Estate (Lake Hayes Estate / Nerin Square) to Frankton (Kawarau Rd, 33-35)	Orbus bus timetable scheduled travel time. AM Peak period. https://orc.govt.nz/public-transport/queenstown-buses	2018: 22 mins *Qualitative Assessment*	2018: 22 mins 2028: - 2048: - *Qualitative Assessment*	2018: 22 mins 2028: - 2048: - *Qualitative Assessment*
PT - Jack's Point (Jacks Point Rise, opposite 66) to Frankton (Frankton Bus Shelter W)	Orbus bus timetable scheduled travel time. AM Peak period. https://orc.govt.nz/public-transport/queenstown-buses	2018: 24 mins *Qualitative Assessment*	2018: 24 mins *Qualitative Assessment*	2018: 24 mins *Qualitative Assessment*
PT - Lower Shotover (Stalker Road) to Frankton (Kawarau Rd, 33-35)	Orbus bus timetable scheduled travel time. AM Peak period. https://orc.govt.nz/public-transport/queenstown-buses	2018: 15 mins *Qualitative Assessment*	2018: 15 mins *Qualitative Assessment*	2018: 15 mins *Qualitative Assessment*
PT - Kelvin Heights (Four View / Grove Lane) to Frankton (Remarkables Park)	Orbus bus timetable scheduled travel time. AM Peak period. https://orc.govt.nz/public-transport/queenstown-buses	2018: 25 mins *Qualitative Assessment*	2018: 25 mins *Qualitative Assessment*	2018: 25 mins *Qualitative Assessment*
		Scheduled travel times of public transport improve with RTI's in short term but then increase as population growth continues travel times increase and PT investment does not keep up with demand.	Scheduled travel times improve and remain consistent over the three time horizons with designated corridors. Scheduled travel times are much faster than the base case.	Scheduled travel times improve and remain consistent over the three time horizons with designated corridors. Scheduled travel times are much faster than the base case.

Investment Objective	Source	Baseline - Do Minimum	Programme 3	Programme 4
General Traffic - SH6 Stalker Road to SH6/ SH6A Roundabout WBnd (AM Peak)	TomTom 2018 Travel times sourced from TomTom as per Stantec, WSP Opus, Abley, Mar 2019. 'Section 7.4 Journey Times,' Queenstown Business Case Transport Modelling Local Model Validation Report (LMVR), NZ Transport Agency.	2018: 216 secs 2028: Est. 283 secs 2048: Est. 306secs Travel times for general traffic deteriorates as population grows and there is more congestion on the network.	2018: 216 secs *Qualitative Assessment* Travel time for general traffic is much faster than the base case scenario from the medium term, with public transport and active mode improvements and mode shift. Travel times increase slightly in long term with continued growth but much less than the base case.	2018: 216 secs *Qualitative Assessment* Travel time for general traffic is much faster than the base case scenario from the medium term, with public transport and active mode improvements and mode shift. Travel times increase slightly in long term with continued growth but much less than the base case.
General Traffic - SH6/ SH6A Roundabout to Stalker Rd bend (PM Peak)	TomTom 2018 Travel times sourced from TomTom as per Stantec, WSP Opus, Abley, Mar 2019. 'Section 7.4 Journey Times,' Queenstown Business Case Transport Modelling Local Model Validation Report (LMVR), NZ Transport Agency.	2018: 250 secs 2028: Est. 259 secs 2048: Est. 524 secs Travel times for general traffic deteriorates as population grows and there is more congestion on the network.	2018: 250 secs *Qualitative Assessment* Travel time for general traffic remain constant and are faster than the base case in the medium term with public transport and active mode improvements and mode shift. Travel times increase in long term with continued growth but much less than the base case.	2018: 250 secs *Qualitative Assessment* Travel time for general traffic remain constant and are faster than the base case in the medium term with public transport and active mode improvements and mode shift. Travel times increase in long term with continued growth but much less than the base case.
General Traffic: SH6 Stalker Road to SH6 and SH6A intersection WBnd	Section 7.4 Queenstown Lakes District Model 2018 Update: Future Forecasting Report (from base case transport model -recheck when updated transport modelling outputs are received)	2018: AM Peak 253secs, PM Peak 257secs 2028: AM Peak 283secs, PM Peak 331secs 2048: AM Peak 306secs, PM Peak 557secs	2018: AM Peak 253secs, PM Peak 257secs *Qualitative Assessment*	2018: AM Peak 253secs, PM Peak 257secs *Qualitative Assessment*

Investment Objective	Source	Baseline - Do Minimum	Programme 3	Programme 4
General Traffic: SH6 & SH6A Intersection Roundabout to Stalker Rd Ebnd	Section 7.4 Queenstown Lakes District Model 2018 Update: Future Forecasting Report (from base case transport model -recheck when updated transport modelling outputs are received)	2018: AM Peak 229secs, PM Peak 247secs 2028: AM Peak 233secs, PM Peak 259secs 2048: AM Peak 240secs, PM Peak 524secs	2018: AM Peak 229secs, PM Peak 247secs *Qualitative Assessment*	2018: AM Peak 229secs, PM Peak 247secs *Qualitative Assessment*
		Travel times for general traffic deteriorates as population grows and there is more congestion on the network.	Travel time for general traffic remain constant and are faster than the base case in the medium term with public transport and active mode improvements and mode shift. Travel times increase in long term with continued growth but much less than the base case.	Travel time for general traffic remain constant and are faster than the base case in the medium term with public transport and active mode improvements and mode shift. Travel times increase in long term with continued growth but much less than the base case.
Average travel times between Shotover Bridge and Kawarau Falls Bridge for cycling, walking	Google Maps	2019: Cycling - 17 mins, Walking - 52 mins 2028: Est. Cycling - 17 mins, Walking - 52 mins 2048: Est. Cycling - 17 mins, Walking - 52 mins	2019: Cycling - 17 mins, Walking - 52 mins 2028: Est. Cycling - 15 mins, Walking - 50 mins 2048: Est. Cycling - 15 mins, Walking - 50 mins	2019: Cycling - 17 mins, Walking - 52 mins 2028: Est. Cycling - 15 mins, Walking - 50 mins 2048: Est. Cycling - 15 mins, Walking - 50 mins

Investment Objective	Source	Baseline - Do Minimum	Programme 3	Programme 4
KPI 5.2 Improve the attractiveness of public transport by reducing travel time difference between public transport and general traffic (travel time)		- Average travel times for public transport will improve slightly in the short term with the limited bus priority measures and bus lanes constructed. However, in the long term average travel times for PT will worsen. General traffic travel times will worsen significantly with predicted population and visitor growth and little incentive to mode shift. There may be some minor shifts to public transport (utilising Park & Ride) as general traffic travel times become more unreliable and if discounted fares for buses continue.	+ + There are increased but predictable travel times for general traffic. Active mode and public transport average travel times are improved. Predictability of travel times for public transport and general traffic is improved. At the same time, travel time variance between public transport and general traffic is reduced. There are more people travelling through key locations on SH6 and SH6A particularly via the trackless tram service.	+ There are increased but predictable travel times for general traffic. Mass transit directly improves public transport reliability. It competes with single occupancy vehicle travel times where mass transit hubs exist but travel times are slower than the trackless tram option. Throughput of people on key corridors increased for all modes. Bus prioritisation is provided in the short term. Slightly increased travel times and travel time reliability is expected until mass transit is provided in year 10.
Reduce travel time difference between public transport and general traffic between SH6 Stalker Road and BP Roundabout (westbound and eastbound)	Transport modelling ORC PT service schedules	Qualitative Assessment Travel time difference between public transport and general traffic worsens as populations growth.	Qualitative Assessment Travel time difference between public transport and general traffic improves greatly against the base case which supports uptake as populations growth.	Qualitative Assessment Travel time difference between public transport and general traffic improves greatly against the base case which supports uptake as populations growth.

Short list programmes MCA Assessment Summary- Criteria Two

Environmental and Social Impacts	Programme 1	Programme 3	Programme 4
Landscape	Minimum landscape effects with most works confined to existing road corridors. Moderate landscape effects of shoulder widening capacity improvements and Park & Ride facilities.	Some landscape effects of new trackless tram and active mode lanes in Frankton and construction of an active mode bridge. Some corridor capacity increases for Public Transport.	Significant landscape effects of gondola infrastructure for route from near Queenstown Event Centre to Queenstown Hill. Some corridor capacity increases for Public Transport and construction of an active mode bridge.
Visual amenity	Low visual effects of overall extent of infrastructure improvements. Minor visual effects of the shoulder widening and Park & Ride.	Moderate visual effects of the active mode bridge.	High visual effects of gondola infrastructure for route from near Queenstown Event Centre to Queenstown Hill and then along SH6 to Ladies Mile, Moderate visual effects of the active mode bridge.
Air quality	In the long run increased general traffic could make emission targets difficult to realise.	Uptake of public transport and active modes, and reduced speed limits on SH6 will reduce vehicle emissions. Freight vehicles will continue to travel to and through Frankton and use SH 6 and SH 6A, particularly in the short to medium term in line with growth predictions.	Less traffic will reduce emissions with mass transit and uptake of active modes. Some general traffic will remain in the study area. Freight vehicles will continue to travel to and through Frankton and use SH 6 and SH 6A.
Water quality and ecology	A lack of mode shift and increased general traffic could increase the levels of hydrocarbons and metals in road sediment run-off in the study area.	Mode shift towards public transport and active modes could reduce metal sediment and hydrocarbon run-off into the natural environment. Freight and some general traffic will remain.	Mode shift to mass transit could create less traffic and reduce metal sediment and hydrocarbon run-off into the natural environment. Freight and some general traffic will remain.
Noise	Increases in general traffic and freight volumes along SH6 has potential to create noise impacts for residential areas near the state highway corridor. Areas likely to be impacted are in the south of the study area near Kawarau Falls Bridge, and recent and proposed developments at Quail Rise.	Noise improved through mode shift and a maintained number of general vehicles travelling on SH6 and SH6A. There could be some noise impacts from bus lanes that traverse close to residential areas around Remarkables Park in Frankton, routes of bus lanes indicative only at this stage.	Noise improved through mode shift and a reduction of general vehicles travelling on SH6 and SH6A. Noise and vibration impacts from gondola unknown but expected to be minimal. Freight vehicles will continue to travel on the state highway corridors and within the light commercial area of Frankton.
Cultural	-	-	-

Environmental and Social Impacts	Programme 1	Programme 3	Programme 4
Archaeological and built heritage	- No known areas of archaeological or built heritage effected.	- No known areas of archaeological or built heritage effected.	- No known areas of archaeological or built heritage effected.
Visitors	Potential visitor impacts with increasing traffic volumes contributing to negative visitor experience.	Visitor access within and from Frankton to the wider Queenstown area is improved with greater access to transport options. Active mode facilities around and through Frankton allows visitors to have improved experiences such as being closer to the natural landscape of Frankton.	Provision of mass transit facilities will improve visitor access and transport choices within Queenstown, and could be marketed as a tourist activity. Improved active mode facilities in Frankton allows visitors to have improved experiences such as being closer to the natural landscape.
Human health	- Some improvement to human health with public transport and minor cycling improvements. Increased general traffic will have negative impacts on human health.	The completion of the cycleway network and separated cycle paths around Frankton offer some improvements to human health and wellbeing. There could be improved social connections in the community with increased uptake of public transport as a travel option.	Some improvement to human health with completion of Frankton cycleway network, and separated cycle paths. There could be improved social connections in the community with increased uptake of High occupancy vehicles, public transport and mass transit transport options.
Public and stakeholders	Programme does not go far enough to realising benefits for Frankton local residents or achieving stakeholder outcomes.	Programme aligns strongly with the current GPS 2018-21, public and stakeholder desire for mode shift, promotion of walking and cycling and improved travel time reliability in the study area.	Programme aligns strongly with the current GPS 2018-21, public and stakeholder desire for mode shift, promotion of walking and cycling and improved travel time reliability in the study area.
Land	Majority of planned works are contained within existing road corridors.	A number of properties are required to construct bus / trackless tram lanes, Super Stop and new road connections (Humphrey St).	Land acquisition is required mass transit gondola line, Park & Rides and new road connections (Humphrey St).

Short list programmes MCA Assessment Summary- Criteria Three

Cost, constructability and operations	Programme 1	Programme 3	Programme 4
Constructability	Works can be achieved.	Works can be achieved but will require planning and technical input.	Likely to have engineering and construction challenges.
Technical feasibility	Interventions are technically feasible, and able to be designed and constructed by the existing regional labour force.	Two bridge structures required for the public transport and active mode river crossings in the north east and south of the study area.	Is achievable but requires experience not currently available in New Zealand for mass transit (gondola).
Maintainability	Maintenance of Programme 1 infrastructure can easily be added to the existing road infrastructure maintenance and asset management plans.	Will require specific skills in Queenstown for trackless tram.	Will require specific skills in Queenstown for Gondolah.
Affordability	Do minimum programme is affordable as improvement works are all planned.	Costs associated with trackless tram infrastructure and property acquisition required for bus lanes.	The construction of mass transit infrastructure presents a significant up-front capital cost.
Costs: CAPEX estimate includes property acquisitions	Approximately $10M	$295M	$366M

Appendix I - Short List Programme Costs

Summary of Travel Totals and Costs from Strategic Modelling - Frankton Cordon

Year	Scenario	Network Name	Period	Total Vehicle Kms	Total Vehicle Minutes	Mean Network Speed	Total Vehicle Operating Costs	Total In Vehicle Time Cost	Total Link Congestion Cost	Total Intersection Congestion Cost	Total Additional Congestion Costs	Total Network Operating Costs
Base 2018	2018 Network Do Min	QT18NU.000	AM Peak									
			Inter Peak									
			PM Peak									
			Annual	-	-		-	-	-	-	-	-
	2018 Network + TT Priority	QT18NU.000	AM Peak									
			Inter Peak									
			PM Peak									
			Annual	-	-		-	-	-	-	-	-
Updated 2028	2028 Network Do Min	QT28NU.DMN	AM Peak	18,546	29,615	37.60	$ 5,773	$ 13,924	$ 83	$ 458	$ 542	$ 20,240
			Inter Peak									
			PM Peak	23,345	38,726	36.20	$ 7,302	$ 18,739	$ 179	$ 732	$ 911	$ 26,953
			Annual	56,519,299	91,866,550		17,632,542	43,785,041	336,037	1,569,132	1,906,813	63,327,155
	2028 Network + TT Priority	QT28NU.DMN	AM Peak	17,744	28,209	37.70	$ 5,512	$ 13,192	$ 76	$ 418	$ 494	$ 19,199
			Inter Peak									
			PM Peak	23,016	38,159	36.20	$ 7,193	$ 18,395	$ 142	$ 703	$ 846	$ 26,434
			Annual	54,833,976	88,922,881		17,081,923	42,198,073	283,274	1,471,037	1,755,426	61,037,066
Updated 2048	2048 Network Do Min	QT48NU.DMN	AM Peak	23,260	38,536	36.20	$ 7,281	$ 18,523	$ 255	$ 697	$ 952	$ 26,757
			Inter Peak									
			PM Peak	31,551	57,742	32.80	$ 10,159	$ 30,422	$ 1,163	$ 1,690	$ 2,853	$ 43,435
			Annual	73,418,805	127,735,514		23,297,249	64,372,342	1,715,965	3,030,218	4,746,183	92,418,533
	2048 Network + TT Priority	QT48NU.DMN	AM Peak	21,872	36,107	36.30	$ 6,832	$ 17,198	$ 143	$ 613	$ 756	$ 24,787
			Inter Peak									
			PM Peak	29,020	50,503	34.50	$ 9,183	$ 25,682	$ 359	$ 1,252	$ 1,611	$ 36,478
			Annual	68,314,868	115,670,753		21,470,853	56,908,942	635,377	2,403,752	3,039,129	81,422,798

Summary of Annualised Benefits from Strategic Modelling Of TT Priority Option - Frankton Cordon

	Scenario	Year	Total Vehicle Operating Costs	Emissions Benefits (4% of VOC)	Total In Vehicle Time Cost	Total Additional Congestion Costs	Total Accident Costs	Travel Time Reliability Costs (5% of TTC)	Cycling and walking health cost savings	Total Network Operating Costs
Benefits	TT Priority vs Base	2018	$ -	$ -	$ -	$ -	$ -	$ -		$ -
	TT Priority vs Do Min	2028	$ 550,619	$ 22,025	$ 1,586,968	$ 151,387	$ 333,540	$ 79,348	$ 1,879,020	$ 4,602,907
	TT Priority vs Do Min	2048	$ 1,826,396	$ 73,056	$ 7,463,400	$ 1,707,054	$ 333,540	$ 373,170	$ 3,720,080	$ 15,496,696
				14,611						

Expansion factors	Factor	pk hr to per
AM Peak	1644	1
Interpeak	0	1
PM Peak	1115	1

Accident cost savings analysis

Total reduction of DSIs	Deaths	Serious Injuries	
2028	0.2	1.8	Every 5 years
2048	0.2	1.8	Every 5 years
Cost per crash (50km/hr)	**Deaths**	**Serious Injuries**	
2006	$3,350,000	$360,000	per crash
2019	$4,238,843	$455,517	per crash

Assumes all movement crash cost (does not distinguish between type of crash)
Values sourced from EEM

Year	CPI (june)
2019	1032
2018	1015
2017	1000
2016	982.8
2015	978.7
2014	974.7
2013	959.2
2012	952.6
2011	943.7
2010	896.4
2009	881.7
2008	865.4
2007	831.9
2006	815.6
Total change of CPI	216.4
Total percentage change of CPI	**27%**

Cycling and walking health benefits

Mode share Do min	2018	2028	2048
General traffic (%)	85	85	85
PT (%)	3	3	3
Walking (%)	8	8	8
Cycling (%)	3	3	3
Project option	**2018**	**2028**	**2048**
General traffic (%)	85	68	55
PT (%)	3	12	20
Walking (%)	8	12	15
Cycling (%)	3	8	10

Year	Population	Mode share increase (between do min and project option)	Number of trips per day	Km per trip	$ / cycling or walking km	Total annual health cost savings	
Cycling							
2024	6000	3%	4	2	1.3	$ 683,280	p.a
2028	7500	5%	4	2	1.3	$ 1,423,500	p.a
2048	10000	7%	4	2	1.3	$ 2,657,200	p.a
Walking							
2024	6000	3%	4	0.4	2.6	$ 273,312	p.a
2028	7500	4%	4	0.4	2.6	$ 455,520	p.a
2048	10000	7%	4	0.4	2.6	$ 1,062,880	p.a
Total (cycling and walking)							
2024						$ 956,592	p.a
2028						$ 1,879,020	p.a
2048						$ 3,720,080	p.a

24% Growth rate between 2024 and 2028

Table 2

Total costs ($)	Lower cost estimates	Upper cost estimates	Maintenance costs (1% of Capex per annum)
Do Minimum	$7,000,000	$12,740,000	$70000 - $127400
Project Option (incl. Do Minimum)	$213,880,000	$396,100,000	$2138800 - $3961000
Project Option (excl. Do Minimum)	$206,880,000	$383,360,000	$2068800 - $3833600

Table 3

NPV (40 year analysis period, $)	4%	6%	8%	6% with 10 yr growth delay
Project option (lower cost) vs Do Min	$206,128,180	$141,464,949	$120,341,193	$141,464,949
Project option (upper cost) vs Do Min	$381,966,837	$262,142,319	$222,998,839	$262,142,319

Table 4

Year	2028				2048			
Scenario	Network Do Min		Network + TT Priority		Network Do Min		Network + TT Priority	
Time Period	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
Total Vehicle Kms	18,546	23,345	17,744	23,016	23,260	31,551	21,872	29,020
Total Vehicle Minutes	29,615	38,726	28,209	38,159	38,536	57,742	36,107	50,503
Mean Network Speed (km/hr)	37.6	36.2	37.7	36.2	36.2	32.8	36.3	34.5
Total Vehicle Operating Costs ($)	$5,773	$7,302	$5,512	$7,193	$7,281	$10,159	$6,832	$9,183
Total In Vehicle Time Cost ($)	$13,924	$18,739	$13,192	$18,395	$18,523	$30,422	$17,198	$25,682
Total Congestion Costs ($)	$542	$911	$494	$846	$952	$2,853	$756	$1,611
Total Network Operating Costs ($)	$20,239	$26,953	$19,199	$26,434	$26,757	$43,435	$24,787	$36,478

Table 5

Annual values	Trackless Tram	
Scenario	TT Priority vs Do Min	TT Priority vs Do Min
Year	2028	2048
Total VOC savings	$550,619	$1,826,396
Emissions benefits (4% of VOC)	$22,025	$73,056
Total in vehicle time cost savings	$1,586,968	$7,463,400
Total congestion costs savings	$151,387	$1,707,054
Total accident costs savings	$333,540	$333,540
Travel time reliability costs (5% of TTC)	$79,348	$373,170
Total cycling and walking health cost savings	$1,879,020	$3,720,080
Total network operating costs savings	$4,602,907	$15,496,696

75% Contribution of health benefits and travel time savings to total benefits in 2028
72% Contribution of health benefits and travel time savings to total benefits in 2048
Note the above are quoted in the body of the report

Table 6

NPV (40 year analysis period)	4%	6%	8%	6% with 10 yr growth delay
Project option vs Do min	$148,434,055	$89,387,773	$61,312,585	$51,549,675

Table 7

	Project option			
Discount rate	4%	6%	8%	6% with 10 yr growth delay
NPV of Benefits	$148,434,055	$89,387,773	$61,312,585	$51,549,675
NPV of Costs (lower)	$206,128,180	$141,464,949	$120,341,193	$141,464,949
NPV of Costs (Upper)	$381,966,837	$262,142,319	$222,998,839	$262,142,319
Total NPV (lower costs)	-$57,694,125	-$52,077,176	-$59,028,608	-$89,915,274
Total NPV (upper costs)	-$233,532,782	-$172,754,545	-$161,686,253	-$210,592,644
BCR (lower costs)	0.7	0.6	0.5	0.4
BCR (upper costs)	0.4	0.3	0.3	0.2

BASE CASE DISCOUNTING

		Discount rate	6%
Year 0	2019	**Package Costs**	
Construction Year	2027	**Lower Cost Estimate**	**$206,880,000**
Years to Construct	1	**Upper Cost Estimate**	**$383,360,000**
Start of Benefits	2028	**Maint every year**	**1%**
		Residual Value Lower cost	$ 49,134,000
		Residual Value upper cost	$ 91,048,000

From Year 0	Year	Benefit	SPPWF (6%)	NPV Benefit	NPV Lower Cost	NPV Upper Cost	FYRR
0.5	2019	$0	0.97	$0			
1.5	2020	$0	0.92	$0			
2.5	2021	$0	0.86	$0			
3.5	2022	$0	0.82	$0			
4.5	2023	$0	0.77	$0	$10,950,414	$20,291,719	
5.5	2024	$956,592	0.73	$694,296			
6.5	2025	$1,187,199	0.68	$812,897			
7.5	2026	$1,473,399	0.65	$951,758			0%
8.5	2027	$1,828,593	0.61	$1,114,339	$117,398,249	$217,545,402	0%
9.5	2028	$4,602,907	0.57	$2,646,223	$1,189,359	$2,203,947	
10.5	2029	$5,147,597	0.54	$2,791,855	$1,122,036	$2,079,195	
11.5	2030	$5,692,286	0.51	$2,912,522	$1,058,525	$1,961,505	
12.5	2031	$6,236,975	0.48	$3,010,584	$998,608	$1,850,476	
13.5	2032	$6,781,665	0.46	$3,088,212	$942,083	$1,745,732	
14.5	2033	$7,326,354	0.43	$3,147,407	$888,758	$1,646,917	
15.5	2034	$7,871,044	0.41	$3,190,005	$838,451	$1,553,695	
16.5	2035	$8,415,733	0.38	$3,217,697	$790,991	$1,465,750	
17.5	2036	$8,960,423	0.36	$3,232,033	$746,218	$1,382,783	
18.5	2037	$9,505,112	0.34	$3,234,437	$703,979	$1,304,513	
19.5	2038	$10,049,801	0.32	$3,226,214	$664,132	$1,230,672	
20.5	2039	$10,594,491	0.30	$3,208,558	$626,539	$1,161,012	
21.5	2040	$11,139,180	0.29	$3,182,564	$591,075	$1,095,294	
22.5	2041	$11,683,870	0.27	$3,149,233	$557,618	$1,033,296	
23.5	2042	$12,228,559	0.25	$3,109,478	$526,054	$974,808	
24.5	2043	$12,773,249	0.24	$3,064,133	$496,278	$919,630	
25.5	2044	$13,317,938	0.23	$3,013,960	$468,187	$867,575	
26.5	2045	$13,862,628	0.21	$2,959,648	$441,685	$818,467	
27.5	2046	$14,407,317	0.20	$2,901,829	$416,684	$772,139	
28.5	2047	$14,952,006	0.19	$2,841,072	$393,098	$728,433	
29.5	2048	$15,496,696	0.18	$2,777,897	$370,848	$687,201	
30.5	2049	$15,496,696	0.17	$2,620,657	$349,856	$648,303	
31.5	2050	$15,496,696	0.16	$2,472,318	$330,053	$611,606	
32.5	2051	$15,496,696	0.15	$2,332,376	$311,371	$576,987	
33.5	2052	$15,496,696	0.14	$2,200,354	$293,746	$544,328	
34.5	2053	$15,496,696	0.13	$2,075,806	$277,119	$513,517	
35.5	2054	$15,496,696	0.13	$1,958,308	$261,433	$484,450	
36.5	2055	$15,496,696	0.12	$1,847,460	$246,635	$457,028	
37.5	2056	$15,496,696	0.11	$1,742,887	$232,674	$431,158	
38.5	2057	$15,496,696	0.11	$1,644,233	$219,504	$406,753	
39.5	2058	$15,496,696	0.10	$1,551,163	$207,079	$383,729	
40.5	2059	$15,496,696	0.09	$1,463,361	-$4,444,392	-$8,235,703	

TOTAL NPV Benefits	$89,387,773
TOTAL NPV Lower Costs	$141,464,949
Benefit-Cost Ratio	0.6
TOTAL NPV Upper Costs	$262,142,319
Benefit-Cost Ratio	0.3

BASE CASE DISCOUNTING

		Discount rate	4%
Year 0	2019	**Package Costs**	
Construction Year	2027	**Lower Cost Estimate**	$206,880,000
Years to Construct	1	**Upper Cost Estimate**	$383,360,000
Start of Benefits	2028	**Maint every 10 years**	1%
		Residual Valu Lower cost	$ 49,134,000
		Residual Valu upper cost	$ 91,048,000

From Year 0	Year	Benefit	SPPWF (6%)	NPV Benefit	NPV Lower Cost	NPV Upper Cost	FYRR
0.5	2019	$0	0.98	$0			
1.5	2020	$0	0.94	$0			
2.5	2021	$0	0.91	$0			
3.5	2022	$0	0.87	$0			
4.5	2023	$0	0.84	$0	$11,930,453	$22,107,784	
5.5	2024	$956,592	0.81	$770,980			
6.5	2025	$1,187,199	0.77	$920,040			
7.5	2026	$1,473,399	0.75	$1,097,919			0%
8.5	2027	$1,828,593	0.72	$1,310,188	$138,031,463	$255,779,880	0%
9.5	2028	$4,602,907	0.69	$3,171,141	$2,068,800	$3,833,600	
10.5	2029	$5,147,597	0.66	$3,410,000	$2,068,800	$3,833,600	
11.5	2030	$5,692,286	0.64	$3,625,796	$2,068,800	$3,833,600	
12.5	2031	$6,236,975	0.61	$3,819,947	$2,068,800	$3,833,600	
13.5	2032	$6,781,665	0.59	$3,993,799	$2,068,800	$3,833,600	
14.5	2033	$7,326,354	0.57	$4,148,628	$2,068,800	$3,833,600	
15.5	2034	$7,871,044	0.54	$4,285,639	$2,068,800	$3,833,600	
16.5	2035	$8,415,733	0.52	$4,405,973	$2,068,800	$3,833,600	
17.5	2036	$8,960,423	0.50	$4,510,712	$2,068,800	$3,833,600	
18.5	2037	$9,505,112	0.48	$4,600,875	$2,068,800	$3,833,600	
19.5	2038	$10,049,801	0.47	$4,677,431	$2,068,800	$3,833,600	
20.5	2039	$10,594,491	0.45	$4,741,291	$2,068,800	$3,833,600	
21.5	2040	$11,139,180	0.43	$4,793,320	$2,068,800	$3,833,600	
22.5	2041	$11,683,870	0.41	$4,834,333	$2,068,800	$3,833,600	
23.5	2042	$12,228,559	0.40	$4,865,101	$2,068,800	$3,833,600	
24.5	2043	$12,773,249	0.38	$4,886,350	$2,068,800	$3,833,600	
25.5	2044	$13,317,938	0.37	$4,898,768	$2,068,800	$3,833,600	
26.5	2045	$13,862,628	0.35	$4,903,002	$2,068,800	$3,833,600	
27.5	2046	$14,407,317	0.34	$4,899,664	$2,068,800	$3,833,600	
28.5	2047	$14,952,006	0.33	$4,889,329	$2,068,800	$3,833,600	
29.5	2048	$15,496,696	0.31	$4,872,542	$2,068,800	$3,833,600	
30.5	2049	$16,041,385	0.30	$4,849,813	$2,068,800	$3,833,600	
31.5	2050	$16,586,075	0.29	$4,821,625	$2,068,800	$3,833,600	
32.5	2051	$17,130,764	0.28	$4,788,431	$2,068,800	$3,833,600	
33.5	2052	$17,675,454	0.27	$4,750,657	$2,068,800	$3,833,600	
34.5	2053	$18,220,143	0.26	$4,708,706	$2,068,800	$3,833,600	
35.5	2054	$18,764,832	0.25	$4,662,954	$2,068,800	$3,833,600	
36.5	2055	$19,309,522	0.24	$4,613,756	$2,068,800	$3,833,600	
37.5	2056	$19,854,211	0.23	$4,561,445	$2,068,800	$3,833,600	
38.5	2057	$20,398,901	0.22	$4,506,332	$2,068,800	$3,833,600	
39.5	2058	$20,943,590	0.21	$4,448,711	$2,068,800	$3,833,600	
40.5	2059	$21,488,280	0.20	$4,388,857	-$7,966,535	-$14,762,427	

TOTAL NPV Benefits	$148,434,055
TOTAL NPV Base Costs	$206,128,180
Benefit-Cost Ratio	0.7
TOTAL NPV Expected Costs	$381,966,837
Benefit-Cost Ratio	0.4

BASE CASE DISCOUNTING

		Discount rate	8%
Year 0	2019	**Package Costs**	
Construction Year	2027	**Lower Cost Estimate**	$206,880,000
Years to Construct	1	**Upper Cost Estimate**	$383,360,000
Start of Benefits	2028	**Maint every 10 years**	1%
		Residual Value Lower cost	$ 49,134,000
		Residual Value upper cost	$ 91,048,000

From Year 0	Year	Benefit	SPPWF (6%)	NPV Benefit	NPV Lower Cost	NPV Upper Cost	FYRR
0.5	2019	$0	0.96	$0			
1.5	2020	$0	0.89	$0			
2.5	2021	$0	0.82	$0			
3.5	2022	$0	0.76	$0			
4.5	2023	$0	0.71	$0	$10,066,999	$18,654,703	
5.5	2024	$956,592	0.65	$626,464			
6.5	2025	$1,187,199	0.61	$719,895			
7.5	2026	$1,473,399	0.56	$827,260			0%
8.5	2027	$1,828,593	0.52	$950,638	$100,151,983	$185,587,124	0%
9.5	2028	$4,602,907	0.48	$2,215,677	$995,847	$1,845,360	
10.5	2029	$5,147,597	0.45	$2,294,326	$922,081	$1,708,667	
11.5	2030	$5,692,286	0.41	$2,349,165	$853,779	$1,582,099	
12.5	2031	$6,236,975	0.38	$2,383,291	$790,536	$1,464,906	
13.5	2032	$6,781,665	0.35	$2,399,472	$731,978	$1,356,395	
14.5	2033	$7,326,354	0.33	$2,400,178	$677,757	$1,255,921	
15.5	2034	$7,871,044	0.30	$2,387,614	$627,553	$1,162,890	
16.5	2035	$8,415,733	0.28	$2,363,742	$581,067	$1,076,750	
17.5	2036	$8,960,423	0.26	$2,330,305	$538,025	$996,991	
18.5	2037	$9,505,112	0.24	$2,288,852	$498,172	$923,139	
19.5	2038	$10,049,801	0.22	$2,240,754	$461,270	$854,759	
20.5	2039	$10,594,491	0.21	$2,187,223	$427,102	$791,443	
21.5	2040	$11,139,180	0.19	$2,129,328	$395,465	$732,818	
22.5	2041	$11,683,870	0.18	$2,068,008	$366,171	$678,535	
23.5	2042	$12,228,559	0.16	$2,004,089	$339,047	$628,273	
24.5	2043	$12,773,249	0.15	$1,938,293	$313,933	$581,734	
25.5	2044	$13,317,938	0.14	$1,871,247	$290,678	$538,643	
26.5	2045	$13,862,628	0.13	$1,803,500	$269,147	$498,744	
27.5	2046	$14,407,317	0.12	$1,735,521	$249,210	$461,800	
28.5	2047	$14,952,006	0.11	$1,667,717	$230,750	$427,592	
29.5	2048	$15,496,696	0.10	$1,600,436	$213,657	$395,919	
30.5	2049	$16,041,385	0.10	$1,533,972	$197,831	$366,591	
31.5	2050	$16,586,075	0.09	$1,468,572	$183,177	$339,436	
32.5	2051	$17,130,764	0.08	$1,404,445	$169,608	$314,293	
33.5	2052	$17,675,454	0.08	$1,341,760	$157,044	$291,012	
34.5	2053	$18,220,143	0.07	$1,280,655	$145,412	$269,456	
35.5	2054	$18,764,832	0.07	$1,221,241	$134,640	$249,496	
36.5	2055	$19,309,522	0.06	$1,163,602	$124,667	$231,015	
37.5	2056	$19,854,211	0.06	$1,107,801	$115,432	$213,903	
38.5	2057	$20,398,901	0.05	$1,053,882	$106,882	$198,058	
39.5	2058	$20,943,590	0.05	$1,001,873	$98,965	$183,387	
40.5	2059	$21,488,280	0.04	$951,787	-$2,084,672	-$3,863,012	

TOTAL NPV Benefits	$61,312,585
TOTAL NPV Base Costs	$120,341,193
Benefit-Cost Ratio	0.5
TOTAL NPV Expected Costs	$222,998,839
Benefit-Cost Ratio	0.3

BASE CASE DISCOUNTING

		Discount rate	6%
Year 0	2019	**Package Costs**	
Construction Year	2027	**Lower Cost Estimate**	$206,880,000
Years to Construct	1	**Upper Cost Estimate**	$383,360,000
Start of Benefits	2028	**Maint every 10 years**	1%
		Residual Value Lower cost	$ 49,134,000
		Residual Value upper cost	$ 91,048,000

From Year 0	Year	Benefit	SPPWF (6%)	NPV Benefit	NPV Lower Cost	NPV Upper Cost	FYRR
0.5	2019	$0	0.97	$0			
1.5	2020	$0	0.92	$0			
2.5	2021	$0	0.86	$0			
3.5	2022	$0	0.82	$0			
4.5	2023	$0	0.77	$0	$10,950,414	$20,291,719	
5.5	2024	$956,592	0.73	$694,296			
6.5	2025	$1,187,199	0.68	$812,897			
7.5	2026	$1,473,399	0.65	$951,758			0%
8.5	2027	$1,734,191	0.61	$1,056,810	$117,398,249	$217,545,402	0%
9.5	2028	$1,994,983	0.57	$1,146,921	$1,189,359	$2,203,947	
10.5	2029	$2,255,776	0.54	$1,223,445	$1,122,036	$2,079,195	
11.5	2030	$2,516,568	0.51	$1,287,631	$1,058,525	$1,961,505	
12.5	2031	$2,777,361	0.48	$1,340,630	$998,608	$1,850,476	
13.5	2032	$3,038,153	0.46	$1,383,504	$942,083	$1,745,732	
14.5	2033	$3,298,945	0.43	$1,417,229	$888,758	$1,646,917	
15.5	2034	$3,559,738	0.41	$1,442,703	$838,451	$1,553,695	
16.5	2035	$3,820,530	0.38	$1,460,753	$790,991	$1,465,750	
17.5	2036	$4,081,322	0.36	$1,472,137	$746,218	$1,382,783	
18.5	2037	$4,342,115	0.34	$1,477,552	$703,979	$1,304,513	
19.5	2038	$4,602,907	0.32	$1,477,637	$664,132	$1,230,672	
20.5	2039	$5,052,964	0.30	$1,530,298	$626,539	$1,161,012	
21.5	2040	$5,503,021	0.29	$1,572,263	$591,075	$1,095,294	
22.5	2041	$5,953,078	0.27	$1,604,574	$557,618	$1,033,296	
23.5	2042	$6,403,135	0.25	$1,628,189	$526,054	$974,808	
24.5	2043	$6,853,193	0.24	$1,643,990	$496,278	$919,630	
25.5	2044	$7,303,250	0.23	$1,652,786	$468,187	$867,575	
26.5	2045	$7,753,307	0.21	$1,655,318	$441,685	$818,467	
27.5	2046	$8,203,364	0.20	$1,652,269	$416,684	$772,139	
28.5	2047	$8,653,421	0.19	$1,644,261	$393,098	$728,433	
29.5	2048	$9,103,478	0.18	$1,631,865	$370,848	$687,201	
30.5	2049	$9,553,535	0.17	$1,615,605	$349,856	$648,303	
31.5	2050	$10,003,592	0.16	$1,595,957	$330,053	$611,606	
32.5	2051	$10,453,649	0.15	$1,573,357	$311,371	$576,987	
33.5	2052	$10,903,706	0.14	$1,548,202	$293,746	$544,328	
34.5	2053	$11,353,763	0.13	$1,520,854	$277,119	$513,517	
35.5	2054	$11,803,820	0.13	$1,491,641	$261,433	$484,450	
36.5	2055	$12,253,877	0.12	$1,460,863	$246,635	$457,028	
37.5	2056	$12,703,935	0.11	$1,428,790	$232,674	$431,158	
38.5	2057	$13,153,992	0.11	$1,395,667	$219,504	$406,753	
39.5	2058	$15,496,696	0.10	$1,551,163	$207,079	$383,729	
40.5	2059	$15,946,753	0.09	$1,505,860	-$4,444,392	-$8,235,703	

TOTAL NPV Benefits	$51,549,675
TOTAL NPV Base Costs	$141,464,949
Benefit-Cost Ratio	0.4
TOTAL NPV Expected Costs	$262,142,319
Benefit-Cost Ratio	0.2

Appendix J - Economic Evaluation

Frankton Integrated Transport Programme Business Case Economic Analysis

1. Introduction

1.1 Project background and context

The Queenstown Lakes District Council and their project partners, the New Zealand Transport Agency and Otago Regional Council have engaged GHD and Boffa Miskell, to develop a Masterplan and Integrated Transport Programme Business Case for Te Kirikiri Frankton. These projects form part of the Wakatipu Way To Go initiative which is a collaborative partnership between these project partners.

They set out land use and transport plans for Frankton so that the area improves its liveability and accessibility and adapts to continued growth within Frankton and across the region. Both adopt a 30 year vision with the Integrated Transport Programme Business Case complimenting the land use changes proposed in the Masterplan so as Frankton develops, it can accommodate the needs of the community as well as the needs of tourists and visitors.

The simultaneous development of a Masterplan and Integrated Transport Programme Business Case represents a key step forward for integrated transport and land use planning practices in New Zealand. It also conveys the desire of project partners to work collaboratively to achieve high quality outcomes for visitors and residents of this nationally significant area.

Frankton is a suburb of Queenstown in the Central Otago, located on the north eastern shore of Lake Wakatipu. Frankton sits in the centre of the Wakatipu Ward of Queenstown which is known as a desirable place to visit and live. The Frankton study area is shown in Figure 1.

Figure 1 Frankton Masterplan and Integrated Transport PBC Study Area

The Frankton Integrated Transport Programme Business Case was able to determine the most optimal programme option by utilising a Multi-Criteria Analysis (MCA). The recommended programme was able to best deliver the following investment objectives:

1. Reduce severance, transport effects on the environment, and improve the liveability and attractiveness of Frankton
2. Improve access to and use of multi-modal transport options for people of all ages and abilities
3. Provide safe transport choices and improve safety perception
4. Improve active mode network connectivity and comfort
5. Improve transport system reliability and maintain travel times

The aim of this economic analysis is to determine the monetary value of the above benefits and compare against the overall capital costs of the project to determine its economic viability.

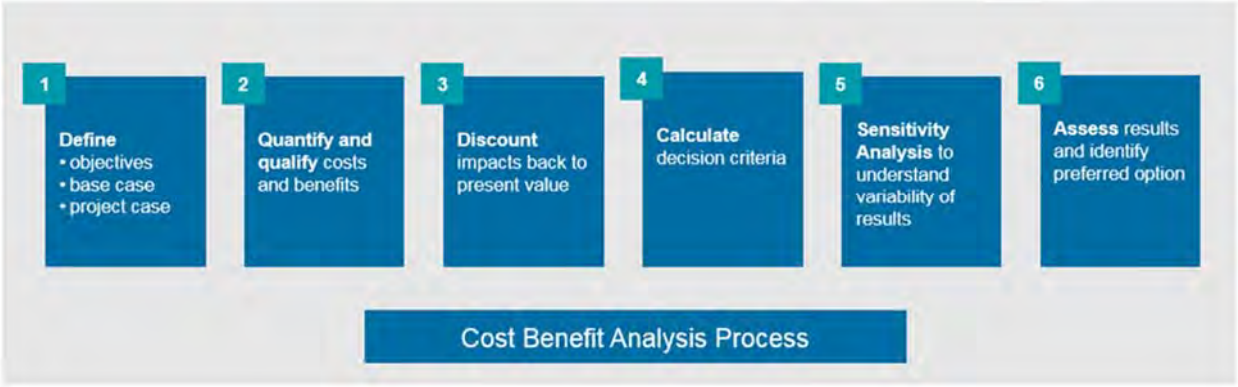
2. Methodology and assumptions

2.1 Methodology

A cost-benefit analysis (CBA) was undertaken to determine the economic feasibility of the project options. The CBA considers both costs and benefits, quantifying where possible to provide a basis for comparison. The analysis will apply standardised assumptions and values as outlined within the NZ Economic Evaluation Manual (EEM).

Figure 2 below provides an outline of the CBA methodology.

Figure 2 CBA methodology



1. **Define objectives, base case and project option:** Investment objectives were developed as part of the ILM are outlined above. The base case and project case are outlined below.
2. **Quantify and qualify costs and benefits:** All quantifiable costs and benefits are considered within the analysis and are detailed in sections 3 and 4 respectively. It should be noted that the quantifiable benefits reflect only a portion of the KPIs / investment objectives. Further qualitative assessments should be considered to reflect the non-quantifiable benefits.
3. **Discount:** Costs and benefits are then discounted back to a present value, providing a present value comparison of cost verse benefits. Discount rates of 6%, 8% and 4% were used as per EEM guidelines.
4. **Calculate:** Both a Net Present Value (NPV) and Benefit Cost Ratio (BCR) were calculated. This takes the incremental difference between the base case and project case for costs and benefits. These values are used for optioneering purposes and also to determine the overarching benefits of the investment.
5. **Sensitivity analysis:** Sensitivities were applied to the costs, assuming both a lower and higher cost estimate and another was used to determine the impact of a 10 year growth delay.
6. **Assess results and identify preferred option:** Consider how options compare against the base case under various discount rates and when applying different sensitivities.

2.1.1 Base Case

In this scenario, the base case has been defined as the Do Minimum. The Do Minimum makes a number of assumptions which are fully outlined in the *Queenstown Business Case Modelling Do Minimum Assumptions* Report. Some of the key assumptions include:

- The Do Minimum will include a number of shoulder widening, path widening for some roads and the installation of signals at some intersections to provide primarily public transport prioritisation
- A 'no frills' park and ride with sealed area for 200 spaces at Ladies Mile.
- No Do Minimum mode shift towards increased walking and cycling is to be included
- Relocation of parking will occur in line with the parking strategy
- The future baseline land use and tourism assumptions as endorsed by QLDC and NZTA were updated as part of the future spatial plan project and have been assumed for the future land use forecasts.

2.1.2 Project Option

As part of the network wide program, a number of short, medium and long term interventions have been proposed. These are generally categorised in the following way:

- Public transport improvements
- Network changes
- Walking and cycling improvements
- Travel demand management measures
- Road and infrastructure upgrades
- New corridors
- Land use planning
- Trackless tram (ground base mass transit) services on key routes State Highway 6 and State Highway 6A completed within 10 years. A trackless tram has been assumed as ground based mass transit system of choice by the project team.

2.2 Economic assumptions

The project option has been assessed based on the following assumptions.

Table 1 Economic assumptions

Item	Assumption / Value	Source
Evaluation period	40 years	EEM
Assessment boundaries	The following results are specific for the Frankton study area as shown in Figure 1	Integrated Transport PBC
Prices and values	Prices and values expressed in NZD dollars.	EEM
Maintenance costs	1% of capital costs	Project assumption
Construction period	Do Minimum construction starting in 2020 Project option construction in 2023 for medium term investments 2027 for long term investments	Project assumption
Operation start date	2028 for the high capacity public transport service 2024 for cycling and walking projects	Project assumption
Traffic model years	2028 and 2048	Wakatipu Strategic Model

Item	Assumption / Value	Source
Interpolation between modelling years	Linear interpolation has been assumed between modelling years	Project assumption
Emissions benefits	Assumed to be 4% of the vehicle operating cost savings	EEM
Travel time reliability costs savings	Assumed to be 5% of the travel time cost savings	EEM
Real discount rate	6% with a sensitivity test at 4% and 8%	EEM
Annualisation factor	AM peak values are multiplied by 1644 for annualisation PM peak values are multiplied by 1115 for annualisation	
Walking and cycling mode share	By 2028, the project will generate an additional 5% of cycling trips and 7% of walking trips By 2048, the project will generate an additional 4% of cycling trips and 7% of walking trips	Project assumption
Walking and cycling average trips per day	Cyclist average 4 trips per day at 2km trip length Pedestrians average 4 trips per day at 400 m trip length	Project assumption
Accident cost savings	A reduction of 2 DSIs per year. 10% of DSIs are deaths	Project assumption
Asset life	40 years	Project assumption
Residual Value	Assumed to have 10 years life at the end of 30 years analysis period (construction completed 2028)	Project assumption
Benefit realisation	Benefits are applied in 2028 when the option becomes operational. All benefits are discounted back to 2019 values	Project assumption
CPI	Accident costs were escalated by 26.5% to cater for inflation between 2006 and 2019	EEM, NZ stat

3. Costs

Total capital costs have been estimated by GHD. Maintenance costs have been assumed to occur annually at 1% of total capital costs. Total/absolute costs are summarised in Table 2.

Table 2 Total costs

Total costs ($)	Lower cost estimates	Upper cost estimates	Maintenance costs (1% of Capex per annum)
Do Minimum	$7,000,000	$12,740,000	$70,000 - $127,400
Project Option (incl. Do Minimum)	$213,880,000	$396,100,000	$2,138,800 - $3,961,000
Project Option (excl. Do Minimum)	$206,880,000	$383,360,000	$2,068,800 - $3,833,600

Source: *Cost estimates Frankton Shortlist for Draft Report 07102019*

Table 3 below assumes that capital costs for the project are spread across the following years:

- Do Minimum costs incurred in 2020
- 7% of remaining project costs incurred in 2023
- 93% of remaining project costs incurred in 2027

The total Net Present Value (NPV) is determined by calculating the difference between the present value of project costs and the present value of Do Minimum costs. Given the same Do Minimum costs are incurred in 2020 for both the Do Minimum option and project option, these costs negate each other have therefore been removed from the analysis. The same principle applies to the maintence costs

A residual value has also been applied at the end of the 40 year analysis period. The project does not become operational until 2028 and has a 40 year life span. This will mean the assets will have a residual value equivalent to 20% of the overall capital costs in year 2059. This is included as a *cost saving* within the NPV analysis.

The NPV results are highlighted below in Table 3.

Table 3 NPV of costs

NPV (40 year analysis period, $)	4%	6%	8%
Project option (lower cost) vs Do Min	$206,128,180	$141,464,949	$120,341,193
Project option (upper cost) vs Do Min	$381,966,837	$262,142,319	$222,998,839

Source: PT Skim Economics – TT Priority - Frankton

4. Benefits

4.1 Transport inputs

Transport inputs were determined using Queenstown-Lakes Tracks Transportation Model and were originally undertaken as part of the strategic modelling for the network. Table 4 below provide the raw transport inputs for the modelling year 2028 and 2048 for the trackless tram option for the Frankton study area only. The inputs have been provided for AM and PM peak periods only.

Table 4 Trackless tram priority option – transport inputs

Year	2028				2048			
Scenario	Network Do Min		Network + TT Priority		Network Do Min		Network + TT Priority	
Time Period	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
Total Vehicle Kms	18,546	23,345	17,744	23,016	23,260	31,551	21,872	29,020
Total Vehicle Minutes	29,615	38,726	28,209	38,159	38,536	57,742	36,107	50,503
Mean Network Speed (km/hr)	37.6	36.2	37.7	36.2	36.2	32.8	36.3	34.5
Total Vehicle Operating Costs ($)	$5,773	$7,302	$5,512	$7,193	$7,281	$10,159	$6,832	$9,183
Total In Vehicle Time Cost ($)	$13,924	$18,739	$13,192	$18,395	$18,523	$30,422	$17,198	$25,682
Total Congestion Costs ($)	$542	$911	$494	$846	$952	$2,853	$756	$1,611
Total Network Operating Costs ($)	$20,239	$26,953	$19,199	$26,434	$26,757	$43,435	$24,787	$36,478

Source: *Queenstown Transport Model*

4.2 Benefits analysis

4.2.1 Benefits methodology

In order to determine the present value of benefits across a 48 year analysis period the following steps were applied:

1. Annualise each of the raw inputs provided above using the annualisation factors shown in Table 1.
2. Calculate the difference between the Do Minimum scenario and the option scenario to determine the cost savings. This will provide the following inputs:
    a. Total vehicle operating cost (VOC) savings for the 2028 and 2048 modelling year
    b. Total travel time cost savings for the 2028 and 2048 modelling year
    c. Total congestion cost savings for the 2028 and 2048 modelling year
3. Determine emissions benefits and travel time reliability benefits by applying the following assumptions:
    a. The 2028 and 2048 emissions benefits is equivalent to 4% of the 2028 and 2048 VOC savings

b. The 2028 and 2048 travel time reliability cost savings is equivalent to 5% of the 2028 and 2048 travel time cost savings

4. Determine cycling and health benefits by applying the following assumptions:
    a. In 2028 cycling mode share increases by 5% and walking mode share will increase by 7%
    b. In 2048 cycling mode share increases by 4% and walking mode share will increase by 7%
    c. An average of 4 cycling and walking trips are undertaken per day with cycling trips averaging 2 km in length and walking trips averaging 400 m in length
    d. Total km travelled by both cycling and walking is multiplied by $1.30 per cycling km and $2.60 per walking km (as per the EEM manual).
5. Determine accident cost savings
    a. The project reduces Deaths and Serious Injuries (DSIs) by 2 per year (with deaths contributing 10% to total DSIs)
    b. Applying cost per fatal crash and cost per serious injury crash to the total change in crashes per year (as per EEM manual)
6. Determine the total network benefits (or cost savings) for 2028 and 2048 by taking the sum of all the annualised benefits identified above.
7. Extrapolate total network benefits across the 40 year analysis period, with benefits starting in 2028.
8. Apply a 6% discount rate to determine the present value of benefits (a 4% and 8% discount rate is applied as a sensitivity).

4.2.2 Quantifiable benefits summary

Table 5 below provides the total 2028 and 2048 values for each of the benefits identified. Table 6 provides the NPV values for the total benefits (calculated across a 40 year analysis period and discounted back to present values using 6%, 4% and 8% rates).

The total Frankton network benefits of the recommended option (trackless tram) in 2028 is $5.9 million and in 2048 is $16.8 million. The largest contribution to the benefits are a result of improved travel times (particularly in 2048) and improved health benefits. These two benefit streams contribute 75% to the total benefits in 2028 and 72% in 2048.

The NPV of benefits shown in Table 6Source: PT Skim Economics – TT Priority – Frankton

Table 6 below will need to be compared against the costs of each option before the value for money assessment can be made. The summary of both costs and benefits is detailed in section 5.

Table 5 Annual values for modelling years

Annual values	Project option 1: Trackless Tram	
Scenario	TT Priority vs Do Min	TT Priority vs Do Min
Year	2028	2048
Total VOC savings	$550,619	$1,826,396
Emissions benefits (4% of VOC)	$22,025	$73,056
Total in vehicle time cost savings	$1,586,968	$7,463,400
Total additional congestion costs savings	$151,387	$1,707,054
Total accident costs savings	$333,540	$333,540
Travel time reliability costs (5% of TTC)	$79,348	$373,170
Total cycling and walking health cost savings	$1,879,020	$3,720,080
Total network operating costs savings	$4,602,907	$15,496,696

Source: PT Skim Economics – TT Priority – Frankton

Table 6 Net Present Value of benefits

NPV (40 year analysis period)	4%	6%	8%	6% with 10 yr growth delay
Project option vs Do min	$148,434,055	$89,387,773	$61,312,585	$51,549,675

Source: PT Skim Economics – TT Priority – Frankton

5. Results

5.1 Economic summary

The following table provides a summary of the economic results for the recommended project option compared against the Do Minimum. As outlined in section 2.2 above, these results consider the costs and benefits for the Frankton study area only.

Table 7 Summary table

	Project option			
Scenario	**4% discount rate**	**6% discount rate**	**8% discount rate**	**6% with 10 yr growth delay**
NPV of Benefits	$148,434,055	$89,387,773	$61,312,585	$51,549,675
NPV of Costs (lower)	$206,128,180	$141,464,949	$120,341,193	$141,464,949
NPV of Costs (Upper)	$381,966,837	$262,142,319	$222,998,839	$262,142,319
Total NPV (lower costs)	-$57,694,125	-$52,077,176	-$59,028,608	-$89,915,274
Total NPV (upper costs)	-$233,532,782	-$172,754,545	-$161,686,253	-$210,592,644
BCR (lower costs)	0.7	0.6	0.5	0.4
BCR (upper costs)	0.4	0.3	0.3	0.2

Source: PT Skim Economics – TT Priority - Frankton

The results show that in each scenario, the costs outweigh the benefits. This is predominately because benefits are not fully realised until 2028 when the major investment in high capacity public transport is completed and operational and therefore monetised benefits been discounted significantly to 2019 values.

A 10 year growth delay will impact the realisation of benefits as it will take an additional 10 years for benefits to be fully realised.

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Appendix K - Network Operating Framework

Queenstown Lakes District Council

Frankton Network Operating Framework

December 2019

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1. Introduction

Queenstown Lakes District Council has commissioned GHD to develop a Network Operating Framework for Frankton. The development of a Network Operating Framework is in response to current and predicted future growth in Frankton and surrounds, to support the development of the Frankton Masterplan and the Frankton Integrated Transport Programme Business Case.

1.1 Network Operating Framework Purpose and Objectives

A Network Operating Framework is an approach to network planning which transport authorities can utilise to consider all transport and road users, and the inter-relationship with land use, transport networks, and transport infrastructure and services. The framework provides a collaborative and integrated approach to managing the transport system through a 'one network' approach.

Development of a Network Operating Framework aims to recognise the diverse needs of transport and road users. With a strategic and collaborative approach, stakeholders and road user groups have input into the development of a framework to understand the needs of users in the existing network and focus investment in future schemes that suit needs and demands of its users.

The Network Operations Framework takes the approach of considering the network needs of general traffic, freight, public transport users, pedestrians, and cyclists while considering the inter-relationship of those modes with land use. It will give guidance on network operations planning and where to consider trade-offs in terms of relative encouragement between modes.

A Network Operating Framework aims to provide a 'backbone' to support the development of Network Operating Plans, transport investments and support investment decisions. The Network Operating Framework provides transport services providers and road agencies strategy guidance on how to respond to land use and transport network interactions in the road network. The Network Operating Framework will:

- Support decisions as part of a wider decision making framework
- Provide a collaborative approach to planning outcomes
- Take a wider view of the network
- Provide transparency in decision-making
- Compliment Business Case development and Master Planning
- Assist with informing understanding of network interventions
- Form an iterative process to encourage an integrated transport network.

This Network Operating Framework is considered 'live' and will evolve as there are changes in the strategic environment especially land use, new projects come on-line, further data and analysis becomes available, and new technologies.

1.2 Study Area

The development of this Frankton Network Operating Framework generally encompasses the Frankton Flats area – the area bounded by SH6, Lake Wakatipu and the Kawarau and Shotover Rivers. It also includes the Lower Shotover area east of the Shotover River. The area is shown in Figure 1 as follows.

Figure 1: Frankton NOF Geographic Study Area[1]

1.3 Stakeholder Involvement

Representatives from the following stakeholder groups were involved in the development of this Network Operating Framework during workshops held 28th – 30th November 2018 in Frankton:

- Queenstown Lakes District Council
- NZ Transport Agency
- Otago Regional Council
- Queenstown Chamber of Commerce
- Frankton Community Association
- Queenstown Airport Corporation
- Southern District Health Board
- Southland Automobile Association
- Destination Queenstown
- NZ Ski Ltd

[1] Map source: https://www.openstreetmap.org/

- Remarkables Park Ltd
- Wakatipu Trails Trust
- Consultants including Boffa Miskell, WSP Opus, Beca and Stantec.

1.4 Purpose of this Report

This report has been prepared by GHD for Queenstown Lakes District Council. This report outlines the Network Operating Framework developed, the process undertaken, and documents the discussions. The purpose of this report is to inform the development of a concurrently developed Integrated Transport Programme Business Case and Masterplan for Frankton.

2. Network Operating Framework Development Process

The Austroads Network Operations Planning Framework and Part 4: Network Management guidelines informed the development of this Network Operating Framework. The development of this Network Operating Framework incorporated workshop sessions run over two days in conjunction with sessions to support the development of the Frankton Integrated Transport Programme Business Case and Masterplan. The workshop develops the strategic objectives, network principles, and the networks and places roles of each transport corridor. Mode priorities have been developed for each mode. This was a collaborative, interactive exercise, with stakeholders using maps to determine the priorities for each of the different modes.

2.1 Process Overview

The Network Operating Framework process has two phases dependant on requirements. The first being development of the strategic setting where mode based objectives are developed and network mode prioritisation maps are prepared and modal conflicts identified. This provides the foundation for planning and assessing the transport network, informing Strategic and Programme Business Cases and Masterplanning.

The second phase allows both quantitative and qualitative assessment of the network to understand network prioritisation and performance in a greater level of detail. Typically, this is undertaken to assess network interventions and to understand current network performance, and generally requires multi-modal performance and traffic volume data. This phase is not being undertaken at this time as it is more appropriately used during detailed business cases as part of the Business Case Approach (NZ Transport Agency).

Figure 2 below outlines the steps in the Network Operating Framework process with the strategic setting and assessment phases represented either side of the dotted line.

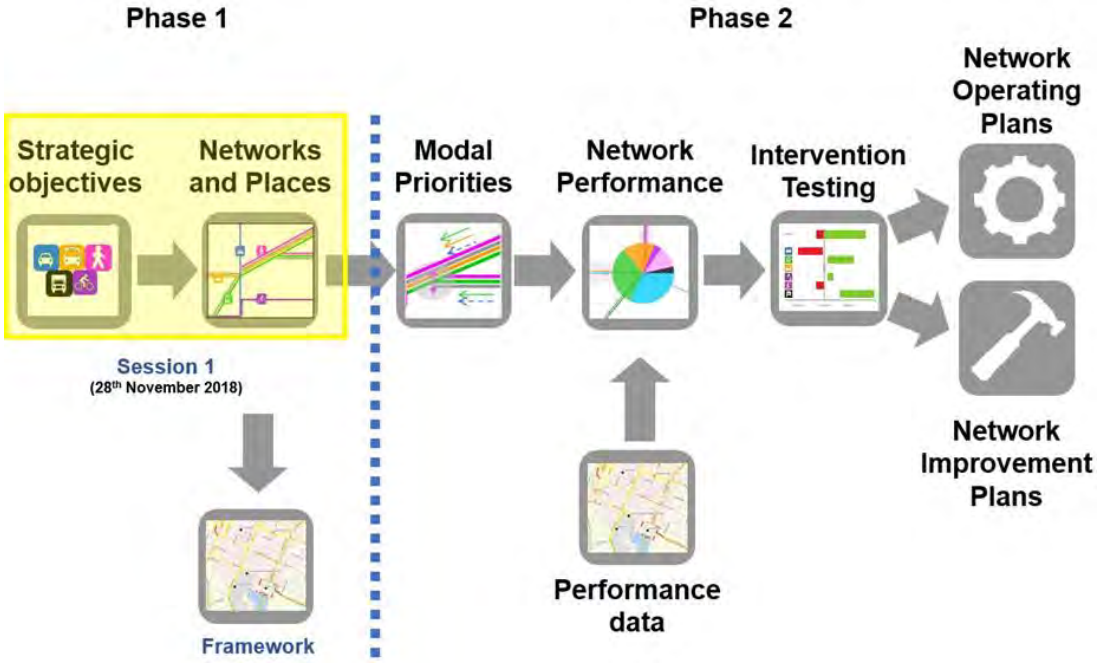

Figure 2: Network Operating Framework Process

The following section outlines the steps undertaken for developing the strategic setting (Phase 1).

2.2 Phase 1 Development

Strategic Objectives and Principles

Strategic Objectives and Principles set the strategic context and mode based aspirations for the network to inform the development of the Network Operating Framework. These underpin and guide the development of the Strategic network. The development of Strategic Objectives outline the aspirations and approach for operations for each mode in the network. Strategic Objectives have been developed for the following five modes:

- Pedestrians – Walkers, motorised scooters, mobility impaired users
- Cyclists – Commuter and recreational
- Public transport – Publicly available transport including tourist coaches and school buses
- General traffic – Private vehicles, taxis and small commercial vehicles i.e. couriers
- Freight traffic – Heavy commercial vehicles.

Once the initial Strategic Objectives are developed, Principles corresponding to each road user mode are developed. The Principles provide guidance on how to apply the Strategic Objectives at a network level by attributing modal priority routes throughout the network. For each mode, there are two Principles, Primary and Secondary, to identify mode based route priorities.

For general traffic, four levels of principles are developed to allow a greater level of prioritisation (from local access through to preferred access routes) to recognise the extent general traffic operates on the network.

The following is an example of a Strategic Objective and Principles for Cycling:

Strategic Objective: Provide a cycling network for people on bikes as a safe and connected everyday mode of transport and recreation.

Primary Routes: Direct and convenient connections to town centre, schools and commercial centres.

Secondary Routes: Connect residential catchments, recreational facilities and other key nodes.

Development of Strategic Objectives and guiding Principles draw on National, Regional, and local planning and policy literature with key stakeholders. These are refined through a collaborative session and tested through the development of the Network Operating Framework.

Network Links and Places

It is fundamental to the Network Operating Framework process to identify the key origins and destinations, as transport infrastructure and services provided support movements between these places. During the workshop(s) the land uses (key destinations and activity areas) are reviewed making additions and modifications where agreed.

The Principles, for each transport mode are used to define priority connections throughout the network in a workshop with stakeholders.

Modal Priorities

The strategic road network and assigned activity areas is developed in GIS. These modal priority maps provide a framework for making decisions and trade-off between modes throughout the network. At a high-level, these identify the level of priority for each mode relative to other modes based on the assigned route priority. The modal priority networks are informed through interactive workshop sessions.

3. Network Context

Frankton is a suburb of Queenstown in Central Otago and is located on the north-eastern shore of Lake Wakatipu. Due to the airport's location within Frankton and the connection that the suburb has to State Highway 6, Frankton functions as a gateway to Queenstown. Frankton also has a commercial and industrial hub and offers picturesque views of Lake Wakatipu, the Remarkables, Shotover River and Kawarau River as shown in Figure 3. As well as the airport, key land uses in Frankton include two shopping centres, a primary school and a high school along with residential and light industrial areas.

Figure 3: Frankton, Queenstown

3.1 Population and Growth

As per the 2013 Census conducted by Statistics New Zealand, Frankton's population was 1,827 (6.5% of the Queenstown Lakes District's population). Frankton has grown significantly since this time with the 2018 Census results expected to confirm this once released. Frankton also had a reported 741 occupied dwellings and 156 unoccupied dwellings. This has also likely increased however, as Queenstown and the surrounding district has experienced a tourist and population boom with the 2018 estimated peak day population increasing from 96,500 in 2015 to 117,349 (Ten Year Plan 2018 – 2028, Queenstown Lakes District Council). This is largely made up of visitors (overnight and intra-day), however there has also been a large increase in the resident population which will be supported by 2018 Census data.

The tourism boom has demonstrated that the Queenstown Lakes District is one of New Zealand's major tourist attractions. Due to this, towns within the district experience sudden fluxes where the population can double during peak periods, which predominantly occurs between late December and early January.

Figure 4 below highlights the rate of residential population growth experienced in Queenstown compared with the rest of New Zealand. The growth over the past five years has been higher than any previous period or year since 1996.

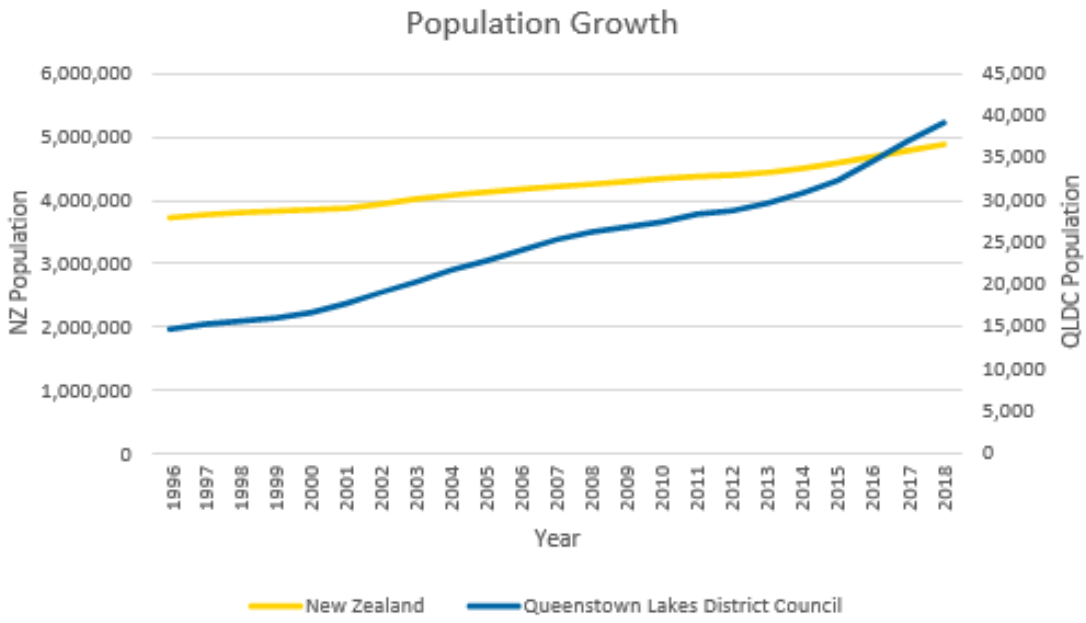

Figure 4: Estimated resident population in Queenstown-Lakes District and New Zealand, 1996 to 2018[2]

Table 1 below demonstrates the forecasted growth in both tourist and population numbers between 2018 and 2028 in the Wakatipu Ward as outlined in Queenstown Lakes District Councils Ten Year Plan 2018-2028. For the Wakatipu Ward (Queenstown and Frankton), the average day population is expected to increase 27%, to 53,987 in 2028, with the peak day population increasing to 89,386 during the same period – 222% of the average day population.

Table 1: Wakatipu Ward Growth Estimates[3]

	2018	2028 (estimated)	2038 (indicative)
Average Day Population	44,095	56,759	65,000 – 74,000
Peak Day Numbers	72,034	94,859	110,000 – 125,000

It is noted that the above estimates and projections have been sourced from Council adopted Population Growth projections in October 2018. These numbers are considered to be conservative and not reflective of the significant growth experienced in the past 12 to 18 months. Projections will be updated when the 2018 Census data is available, with further projections expected to be released in late 2019 / early 2020.

Events such as the Queenstown Marathon and the Winter Festival also increase visitor daily population numbers and require road closures. As would be expected, these peak visitor days are putting pressure on the town's transport network and infrastructure, particularly in terms of traffic flows and availability of car parking.

[2] ecoprofile.infometrics.co.nz/queenstown-lakes%2bdistrict/Population/Growth
[3] Data sources: Ten Year Plan 2018-2028 Consultation Document, Queenstown Lakes District Council (2018)

4. Strategic Policy and Planning

The following section outlines plans and strategies developed that consider growth and development, and the transport network, in the Frankton area. Further information summarising the planning and policy context at a national, regional and local level are in Appendix A.

The Frankton Masterplan Establishment Report[4] further informs this section. Additionally, the Frankton Masterplan and Integrated Transport Programme Business Case provides supporting information for this Network Operating Framework.

4.1 Queenstown Lakes District Council Ten-Year Plan 2018-28

The Queenstown Lakes District Council Ten-Year Plan 2018-28 Consultation Document outlines the strategic direction of the district for the next decade, and the big issues it expects to face in this time. In particular, the document states that maintaining vibrant, accessible town centres is vital to keeping the district liveable. This particularly applies to the two main centres of Queenstown and Wanaka (Ten Year Plan 2018-2028 Consultation Document, Queenstown Lakes District Council, 2018).

The Ten Year Plan states the Council's vision as 'Vibrant Communities, Enduring Landscapes, Bold Leadership'. The plan also acknowledges the need for urgent transportation planning and investment throughout the region to achieve this vision.

4.2 Queenstown Lakes District Council Economic Development Strategy 2015

This strategy was developed as a follow-up to the 2012 Economic Futures Taskforce report. The document states that economic development is the combination of policies, investments and actions that improve the ability of organisations and people in a community to more productively and effectively respond to opportunities. The aim is to achieve a high standard of living and quality of life for all residents.

The council is working with the NZ Transport Agency on mechanisms to achieve a reduction in congestion. Currently residents experience congestion between Frankton and Queenstown on SH6A with traffic expected to slow to 20kph in 20 years without remedial measures. In addition, Plan Change 19 from 2014 proposed rezoning Rural General land in in Frankton to enable commercial, residential and industrial development.

4.3 Queenstown Integrated Transport Programme Business Case 2017

NZ Transport Agency commissioned the development of the Queenstown Integrated Transport Programme Business Case (QITPBC) and the recommended programme to improve the transport system through modal choice and availability has been developed in collaboration with the Otago Regional Council and Queenstown Lakes District Council.

The PBC notes that due to unprecedented levels of growth the transport system in the Wakatipu Ward is under severe strain with the key example being that SH6A is operating at 88% capacity and is expected to reach 100% capacity in 2026. The implications for Frankton stem from the need to offer residents and visitors multi-modal travel options throughout the Wakatipu Ward in an effort to ensure an operational transportation system exists. This will lead to significant development within Frankton as the PBC acknowledges that *Frankton Flats is the*

[4] Frankton Masterplan Draft Establishment Report, July 2018, Queenstown Lakes District Council Rationale Limited

single greatest area of developable land in the Queenstown Lakes District. This will have a significant impact on how and where changes occur.

4.4 Queenstown Parking Strategy

A Parking Strategy is currently being prepared for Queenstown town centre and Frankton (due for completion December 2019) to outline a recommended approach to address parking-related issues and contribute to a more balanced transport system. The management of parking within Queenstown has important implications for development and investment in across the Wakatipu Basin by providing additional deterrents for single occupant vehicle trips and in providing incentives for public transport and active travel users.

Figure 5: Queenstown Parking Strategy[5]

To develop the Frankton strategy, the key issues that are being considered include:

- The parking types and patterns in the residential area
- What level of control is needed for protecting grass verges
- The parking types and patterns within Glenda Drive industrial zone (how to best use the available road space, particularly relating to on-street loading zones)
- The impact that SH6 parking removal has had on the Frankton residential area
- How to manage parking at the waterfront.

[5] Source: https://www.qldc.govt.nz/services/transport/transport-and-parking-strategies/parking-strategies-for-queenstown-and-frankton/

4.5 Otago Southland Regional Land Transport Plan 2015

The Otago Southland Regional Land Transport Plan (RLTP) developed in 2015 and updated in 2018 is a requirement of the Land Transport Act. The RLTP is required to seek funding form the NLTP. The RLTP notes that due to the location of the airport and the SH6/SH6A intersection, much of the projected growth in population and business can be expected to occur in and around Frankton.

Currently there is severe congestion in and around Frankton, particularly on SH6A. The main cause of congestion is the dominance of private vehicles. Development of a network that supports multi-modal choices for residents and visitors will go a long way to enabling further development and sustainable growth within the region.

There are a number of projects and initiatives completed, under construction and planned to improve modal choice and development including:

- Grant Road to Kawarau Falls Bridge – BP Roundabout improvements and corridor improvements through Frankton between the roundabout and Kawarau Falls Bridge
- Wakatipu Active Travel Network – improved cycling facilities, network and access throughout the region
- Park and Ride Transport Services – Parking facilities connected to major public transport hubs
- Frankton to Queenstown Single Stage Business Case – This business case will be developing the recommended option for this corridor, including the predicted demand by mode along the corridor[6]
- Queenstown Town Centre Detailed Business Case - This business case will be developing the recommended option for Queenstown Town Centre transport enhancements[7]
- Lake Wakatipu Public Water Ferry Service Detailed Business Case - This Detailed Business Case will look at potential ferry infrastructure and operations for the Wakatipu.

[6] Ibid

[7] QLDC, 2018, '1.4 Integrated Implementation', Request for Proposal: Wanaka and Frankton Masterplan Services, pp 6-7, Queenstown, Queenstown Lakes District Council

5. Land Use and Growth

The Network Operating Framework is a process to integrate land use with the transport network. Land use planning and growth discussions formed an important part of the workshop sessions. The discussions conveyed a wider understanding of development and growth in the Frankton area and beyond that informed the development of the strategic maps.

Existing and future land uses and key activity areas were discussed in the workshop to encourage emphasis on connecting key existing and future land uses during the strategic network mapping process. Key land use types identified include:

- Schools and community facilities
- Retail, tourism and commercial areas
- Residential
- Industrial.

5.1 Land Use Planning in Frankton

Queenstown Lakes District Council are currently in the process of updating the District Plan. The Operative District Plan is the current document for land use and zoning until the Proposed District Plan is made operative following the review.

5.1.1 Operative District Plan

The Operative District Plan is the current District Plan for zoning and land use and will remain so until the Proposed District Plan is ratified. The District Plan outlines several key areas of focus and supporting objectives in the Queenstown Lakes District Council District Plan as outlined below:

Consolidation and Maintenance of Existing Town Centres and Activities Therein

Viable town centres which respond to new challenges and initiatives but which are compatible with the natural and physical environment.

Built Form

Maintenance and enhancement of a built form and style within each town centre that respects and enhances the existing character, quality and amenity values of each town centre and the needs of present and future activities.

Town Centre and Building Appearance

Visually exciting and aesthetically pleasing town centres, reflect physical and historical setting.

Amenity

Enhancement of the amenity, character, heritage, environmental quality and appearance of the town centres.

Pedestrian and Amenity Linkages

Attractive, convenient and comprehensive network of pedestrian linkages within town centres.

5.1.2 Proposed District Plan

Queenstown Lakes District Council are currently reviewing the Operative District Plan in stages and notified the Proposed District Plan in 2015, which comprised 33 chapters and most of the land in the District.

The Proposed District Plan has a Strategic Directions (Chapter 3) which sets out the over-arching strategic directions for the District. The objectives and policies of the Strategic Directions Chapter are further elaborated on in the remaining chapters (Chapter 4 Urban Development, Chapter 5 Tangata Whenua, and Chapter 6 Landscapes) required to implement Chapter 3.

A distinction between the Proposed District Plan and the Operative District Plan is the introduced urban growth boundaries and a policy framework. This supports consolidation of urban development within the Frankton urban growth boundary. Urban development on Rural Zoned land outside the urban growth boundary is to be avoided, unless through a plan change. One reason for this policy approach is to provide certainty for development, economic resilience and to assist with the Council undertaking investment to the water, wastewater, roading and transport infrastructure. Expansion of future urban land will be encouraged through plan changes rather than ad-hoc development via resource consents on Rural Zoned land.

The urban growth boundary as shown in Figure 6 (Proposed District Plan) below has the objective of managing the scale and location of urban growth in the Queenstown Urban Growth Boundary. Policies include limiting the spatial growth of Queenstown contributing to strengthening the role of Frankton in providing local commercial and industrial services. The growth boundary is important as it provides direction regarding where to invest network infrastructure.

Key changes between the existing operative district plan and the proposed district plan in the Frankton area are as follows:

- Introduction of the urban growth boundary to consolidate urban development
- Special Zones: Remarkables Park, Frankton Flats and Quail Rise.

The Proposed District Plan maps relevant to Frankton have been included in Appendix B.

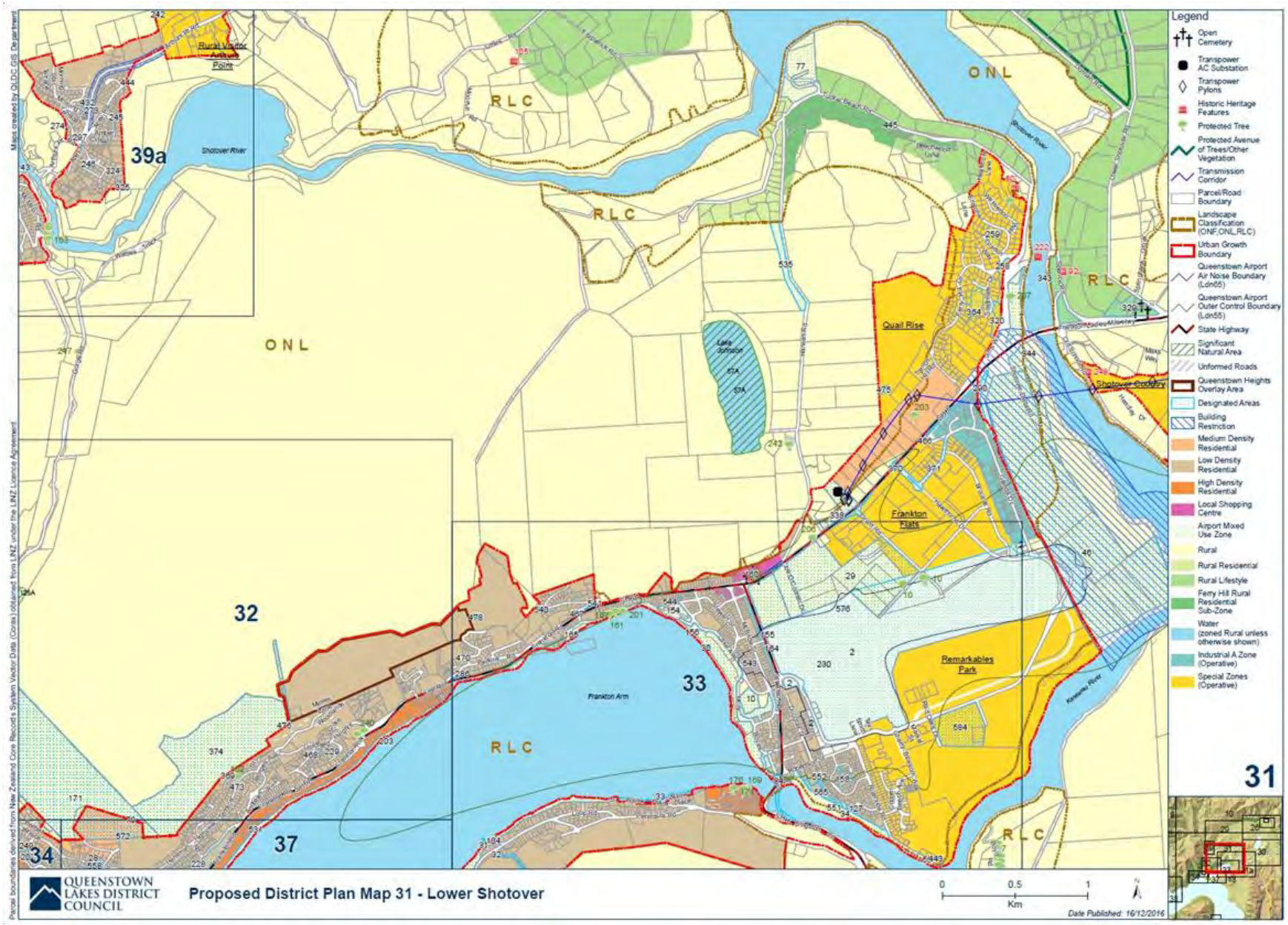

Figure 6: Proposed District Plan – Frankton and Airport

5.2 Land Use Development

The following is a summary of current and proposed land use and development areas in Frankton and surrounds that will contribute to growth and network challenges in the future. The information outlined in the following section has been sourced from Queenstown Lakes District Council Proposed District Plan chapters[8].

5.2.1 Frankton Industrial Area

The Shotover Park Development is strategically located off the main highway into Queenstown (State Highway 6), nestled between Queenstown Airport and the western side of the Shotover River. The development, centred on Glenda Drive, can be accessed from Frankton-Ladies Mile Highway via Hardware Lane or a large roundabout connecting to the new Eastern Access Road (Hawthorne Drive) which provides a high quality eastern arterial connection to the large Remarkables Park Zone and Town Centre and recently opened Wakatipu High School. The Park contains a range of industrial businesses and developers as well as some large commercial chain stores including Pak'nSave, Mitre 10 Mega and Placemakers.

5.2.2 Queenstown Airport

Queenstown Airport provides facilities for the transportation of people and freight and is a key asset to the District in terms of supporting the tourism industry and the needs of local and business travellers. The annual passenger numbers are approximately two million into Queenstown Airport with a forecast demand much higher in coming decades. Queenstown Airport Corporation is the operator of the airport and is currently reviewing it medium and long- term passenger levels.

Queenstown Airport acts as an important gateway into the District and facilitates access and economic activity in the local and broader regional economies. The Airport's main function is for domestic and international scheduled passenger movements as well as freight. The Airport is a nationally significant asset in the light of its significant contribution to the tourism industry.

Queenstown Airport also provides facilities and infrastructure for helicopter, sightseeing and general aviation operations. It is also a critical provider of emergency services and is a lifeline utility under the Civil Defence Emergency Management Act 2002.

International tourism is New Zealand's largest foreign exchange earner and the Queenstown Lakes District tourism industry is heavily reliant on air transport. The airport is a significant source of employment for the District.

The Airport Mixed Use zone applies to all land used for airport and airport-related activities at Queenstown Airport. The Zone rules apply a range of performance standards to manage the effects of land uses carried out at the Airport on amenity values.

5.2.3 Frankton Flats

In Frankton Flats, there are townhouse developments comprising three and four-storey townhouses, and large scale commercial developments such as Mitre 10 MEGA, Kmart and PAK'nSAVE.

The purpose of the zone was to enable development of a new shopping centre incorporating opportunity for retail, office, educational, visitor and residential accommodation and leisure activities. In particular, creating a high amenity urban environment while maintaining and enhancing the natural values of the environment (particularly as viewed from State Highway 6 as it enters the Frankton and Queenstown urban environment).

[8] Reference: https://www.qldc.govt.nz/planning/district-plan/proposed-district-plan-stage-1/proposed-district-plan-chapters/

Within the Frankton Flats area there are currently two major retail areas: Five Mile Shopping Centre and Queenstown Central.

Five Mile Shopping Centre (under development)

Five Mile Centre is a retail and commercial precinct situated on Grant Road alongside SH6. Stage one of the precinct opened in 2015. Currently work is underway on Frankton's second office tower, Craigs Investment Partners House (also known as Building 8), with the five storey building expected to open mid-year 2020.

Queenstown Central (under development)

Queenstown Central is a retail mall with over 40 stores situated between Grant Road and Hawthorne Drive in Frankton (opposite Five Mile).[9] Stage one of the 4.7ha complex opened in October 2018 with 10,000m2 of retail space and 4,500m2 of office space. Stage 2 of the complex is currently under development.

5.2.4 Remarkables Park (under development)

As stated on the Remarkables Park website, the 'Remarkables Park's vision is to create a dynamic urban environment. The unique 150 hectare Remarkables Park Zone is designed to deliver comprehensive multi-use, retail, resort, residential and recreational opportunities to further enhance Queenstown's thriving community.' As part of the development, there will be retail expansion, commercial premises and residential apartments, terraces and residences.

The Remarkables Park zone in the Operative District Plan is to provide for a comprehensively managed and integrated high-density development containing opportunities for a range of supporting and complementary activities. The development activities propose open space, visitor accommodation, and transport, educational, recreational and commercial facilities.

To achieve a high standard of integrated development, sustainable management, building and open space design, the zone is subject to a Structure Plan (refer Figure 7 below for overview), which details activity areas, and provides for a wide range of matters to be subject to Controlled Activity consent.

[9] Queenstown Central, 2019, 'Queenstown Central', retrieved 29/01/19, from https://queenstowncentral.co.nz/

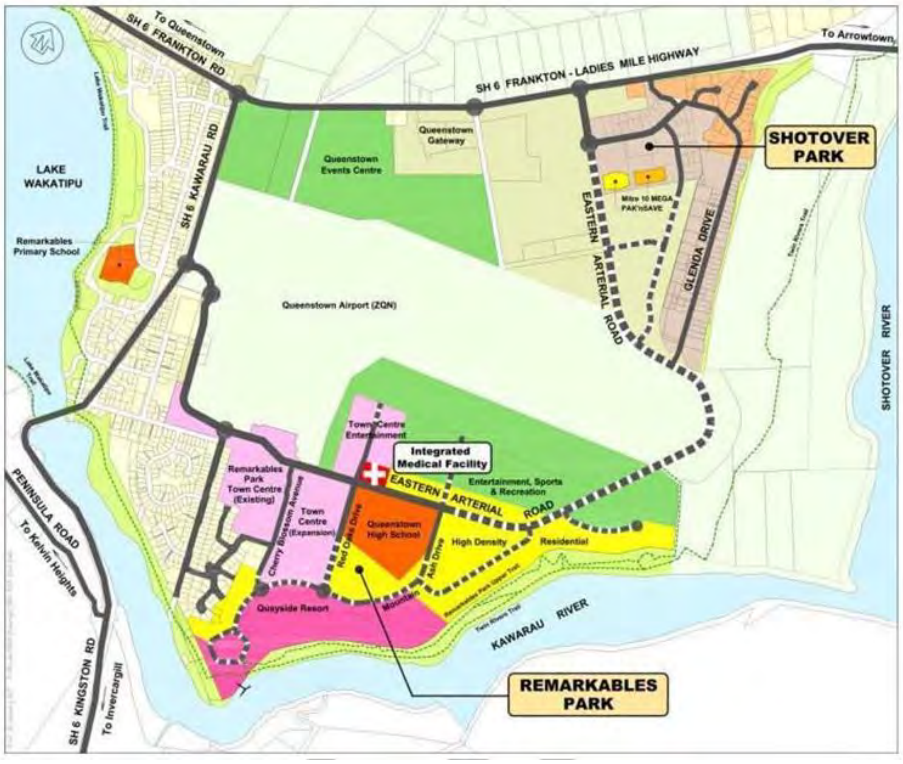

Figure 7: Remarkables Park Structure Plan Overview[10]

Within the Remarkables Park Zone, future development is proposed on the riverside peninsula at the southern end of the Structure Plan. The provisions enable a wide range of development including retail, offices, commercial, residential, visitor accommodation and facilities along with restaurants, cafés and riverside facilities such as ferry transport. The intention is for the Riverside Peninsula area to develop as a vibrant mixed-use precinct that includes pedestrian activities.

In the east of the Remarkables Park Zone (shown generally in yellow in Figure 7 above), a significant proportion of this area is proposed to be higher density housing to cater for visitor and residential accommodation, including student and staff accommodation, educational, health and day care facilities

In May 2019 the construction of the Holiday Inn Queenstown Remarkables Park hotel was confirmed, with the hotel scheduled to open in early 2021.

5.2.5 Quail Rise (under development)

Quail Rise a residential suburb to the north of Frankton and SH6, situated above the western bank of the Shotover River as shown in Figure 8 below. The Operative District Plan states 'The purpose of the Quail Rise Zone is to provide low-density residential living within a high amenity area'. The subdivision is intended to be 'family-type living' which provides character and community. The 200-section suburb enhanced by design standards which encourage landscaping – presently over 50 per cent of the subdivision is in open space. In July 2018, it was announced that funding to bring the development forward several years had been secured through loans from the Housing Infrastructure Fund. The announcement stated that the development will contain 900 houses in the next ten years.

With the addition of dwellings in Quail Rise and increasing traffic volumes on State Highway 6, a slip road is currently under construction to remove the difficult right turn from Tucker Beach Road

[10] Source:https://www.remarkablespark.com/news/integrated-medical-facility-announced-for-queenstown-s-remarkables-park/

onto State Highway 6. The improvements incorporate a slip road accessed via the existing road under Shotover River Bridge.

Figure 8: Quail Rise Residential Development Area[11]

5.2.6 Jacks Point (Area of Influence)

Jacks Point is a 1,200-hectare settlement, 6 km south of Frankton on SH6. The spacious resort settlement offers residential homes, an education innovation campus, hotels, office space, hospitality venues and two villages as well as a variety of recreation opportunities and community benefits including access to public open space and amenities.

Anticipated amenities include an 18-hole championship golf course, a luxury lodge, craft and winery activities, outdoor recreation and enhanced access to and enjoyment of Lakes Tewa and Wakatipu.

5.2.7 Ladies Mile (Area of Influence)

Ladies Mile is an urban development located northeast of Frankton between the Shotover River to the west and Lake Hayes to the northeast. It lies opposite the Queenstown Country Club on the main transport corridor (SH6) into Queenstown, making public transport connections more viable. It is next to the major employment area of the Frankton Flats and its industrial zones.

The development of nearly 2,000 new homes is planned to meet demand, with growth projections showing an almost doubling of the number of existing residential units in Queenstown and Wanaka over the next 30 years.

After deciding not to recommend Ladies Mile as a Special Housing Area, QLDC purchased the 14.6ha site in May 2019 and on 30 May voted to lead the development of a structure plan and plan

[11] https://www.openstreetmap.org

variation. However, due to the likelihood of encountering significant delays, it is expected that it will be between two and four years before any houses are constructed.

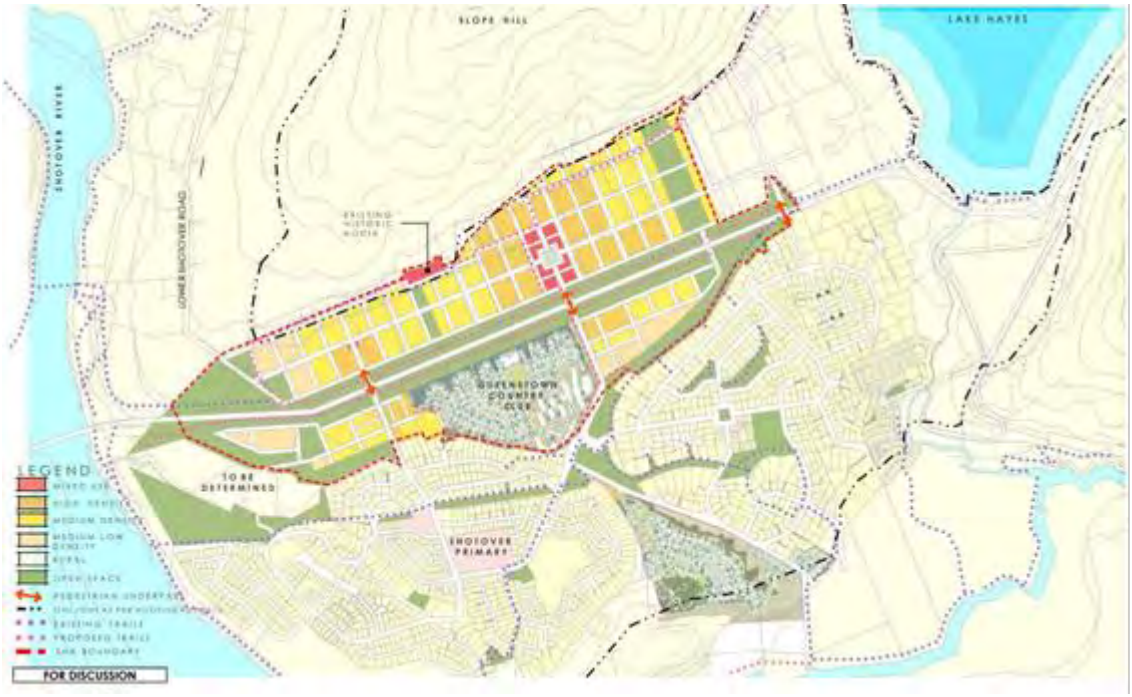

Figure 9: Ladies Mile - Indicative Master Plan[12]

5.2.8 Shotover Country Special Housing Area (Area of Influence)

Located opposite the Ladies Mile development, to the south of SH6, the Shotover Country Special Housing Area will provide opportunities for predominantly low density living with a smaller mixture of medium density living, community and educational activities within a central core.

The residential neighbourhood aims to provide 800-900 affordable homes close to Queenstown. The zone seeks to establish a high level of connectivity with established communities through a network of open space, pedestrian paths and transport linkages.

Stage 1 opened for sale on 15 November 2012, and stage 14 opened for sale in June 2016. Shotover Primary School also opened in 2015.

[12] Source: https://www.qldc.govt.nz/assets/Uploads/Your-Views/Ladies-Mile/1c.-Indicative-Master-Plan.pdf

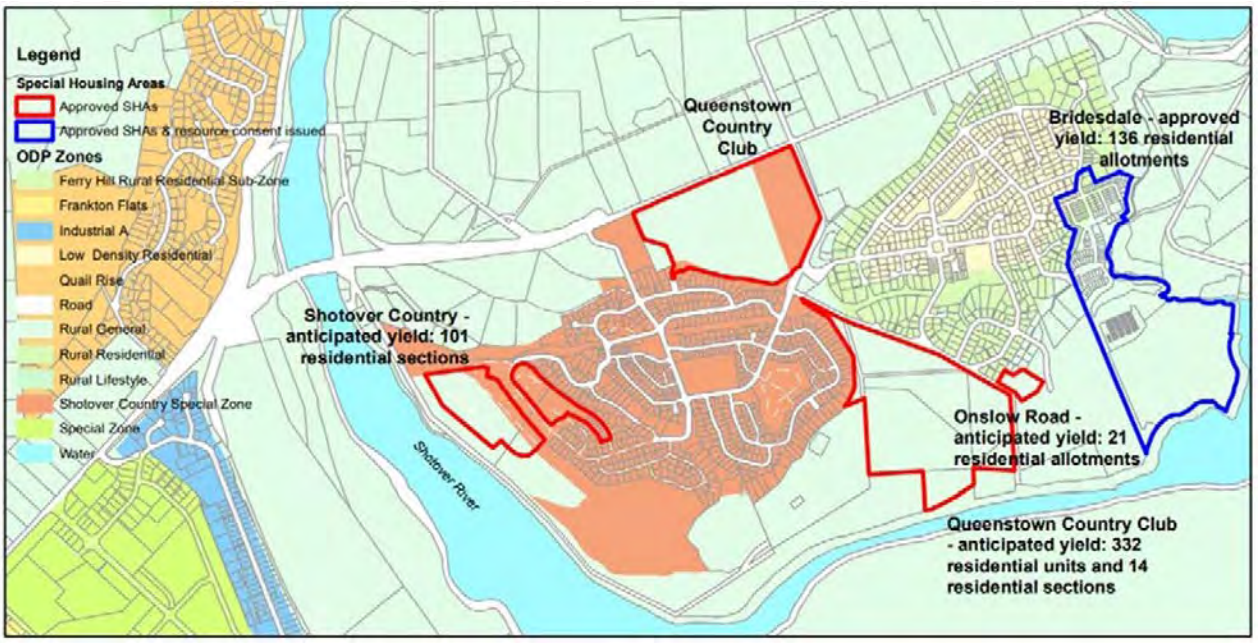

Figure 10: Shotover Country Special Housing Area[13]

5.2.9 Hanleys Farm (Area of Influence)

Hanleys Farm is a 135 hectare master-planned subdivision situated between Lake Wakatipu, Jack's Point Golf Course and The Remarkables (south of Frankton). This residential development will consist of 2,200 homes, a commercial and retail precinct and recreational facilities including parklands, and active mode tracks[14].

[13] Image source: https://www.qldc.govt.nz/assets/Uploads/SHAs-Map-August2017-Update-V6-A4.pdf
[14] Source: https://winton.nz/our-projects/hanleys-farm/?gclid=EAIaIQobChMIqMThip2P4gIVkIBwCh3zowg9EAAYASAAEgLyYPD_BwE

6. Network Operating Framework Development

When considering a balanced transport network approach using numerous transport solutions, it is important that there is a consideration of how the different road user groups use the network.

This Network Operating Framework takes an integrated approach to support master planning, land use and mode prioritisation in Frankton. Within the study area, it is also important to consider the key factor of variable user numbers, which will affect the way the transport network operates, and its efficiencies.

6.1 Operating Framework Horizon

The Network Operating Framework horizon considers a future point in time based on population and land use growth assumptions to allow consideration of a future aspirational network function. This allows consideration of future changes in land use and growth to encourage forward thinking for network planning, avoiding a focus on only addressing current challenges. Development of the strategic road network has this horizon in mind to determine how stakeholders 'aspire' to operate the network. The time horizon reflects a 'step' towards the networks long-term aspiration.

During the workshop the stakeholders agreed that given the rapid development and relatively well understood future developments occurring in Frankton and surrounds, that a short-term timeframe for both the transport network and land use should be considered. As such, this Network Operating Framework considers a short timeframe in the order of two to five years.

The short-term timeframe allows focus on significant current changes occurring that impact the network, such as the developments outlined in Section 5.2 assumed, including:

- Quail Rise
- Frankton Flats
- Remarkables Park
- Queenstown Airport
- Areas of influence including Shotover Country, Lake Hayes Estate, Ladies Mile, Jacks Point and Hanleys Farm.

This Network Operating Framework also takes into consideration longer-term growth scenarios and land uses. This is to reflect how a number of factors can affect the rate of development, in residential and commercial land use. Transport planning needs to take into consideration any planned future development.

7. Strategic Objectives and Principles

Strategic objectives provide a guideline for the development of a strategic road network. These were established (in draft form) drawing on existing policy and planning goals and visions, and stakeholder knowledge, to develop a common set of Strategic Objectives and Principles for the network. The Strategic Objectives and Principles also considered wider regional objectives.

During the workshop, attendees were involved in an interactive session for each mode to describe what was important to their organisation and the community. The notes and corresponding workshop discussion formed an understanding of the overarching Strategic Objective for each mode and the corresponding Principles. The strategic discussion further refined the Strategic Objectives and Principles for pedestrians, cyclists, public transport, freight, and general traffic. Key themes from the discussions included the following points:

- Development of a network that encourages and enables active transport as the preferred mode choice
- Safe access, for all ages on all modes, with more direct and attractive routes between home, work and commercial areas
- Strengthening existing network improving connections between key catchments and destinations, to and within Frankton considered on a mode-by-mode basis.

The key objectives that the stakeholders were targeting as outcomes from the Network Operating Framework discussions included:

- Frankton as a less car centric and dependant place by improving the active mode transport accessibility
- Cycling/walking the first choice for all trips within Frankton
- Improve mode-choice in Frankton and surrounds.

The Strategic Objectives and Principles frame the aspirations of Queenstown Lakes District Council and key stakeholders in regards to the operation of the network as it relates to each mode.

The following section outlines the key themes, discussions and basis for the formation of each modes Strategic Objectives and corresponding Network Principles. A summary of the Strategic Objectives and Principles is included at the end of this section in Table 2.

7.1 Pedestrians

In Queenstown Lakes District, there are visions and outcomes sought to promote greater movement by people through active modes such as walking and cycling. There is a desire to provide and maintain outstanding cycling and walking facilities, to encourage and enhance walking and cycling as a healthy active activity, and to improve pedestrian and cycle accessibility for the community to support a stronger sense of community.

Discussions during workshop sessions between stakeholders supported the promotion of active transport. Objectives for pedestrians should consider:

- Direct, continuous and convenient connections
- Safe, direct and attractive routes between residential, commercial and recreation areas
- Encourage and provide accessibility to other transport modes
- Provide good permeability for pedestrians across Frankton.

The key themes of the discussion were the need to connect the residential areas, the lakefront, schools and recreation areas, and commercial centres. Further, the group considered:

- The importance within commercial centres areas for pedestrian prioritisation
- Pedestrian movement be encouraged between key activity areas and destinations, and between schools, community facilities and residential catchments.

The corresponding strategic objective and network principles are detailed below.

Strategic Objective

A network for pedestrians* that provides enjoyable and commuter friendly connections within and throughout Frankton.

**Pedestrian network principles consider all forms of active travel (i.e. mobility scooter, running, walking) with the exception of cycling*

Principles

Primary Pedestrian Routes

Provide linkages that enable movement in and between areas of high commercial and retail activity, schools, and support connectivity to off-road trails.

Secondary Pedestrian Routes

Provides linkages to Primary routes to/from residential and commercial areas, recreational facilities.

7.2 Cyclists

The vision and outcomes sought for cycling are consistent with pedestrians. Generally, the outcomes sought are to promote greater movement of people through active modes such as cycling, with a desire to provide and maintain outstanding cycling facilities that encourage and enhance cycling as a healthy active activity. There is also a desire to continue to improve cycling infrastructure, connectivity and accessibility for the community and tourism.

Discussions during workshop sessions between stakeholders supported the promotion of active transport. Stakeholders noted their respective objectives for pedestrians consider:

- Direct, safe and attractive connections to schools, homes, commercial centres and trails
- Separation from general traffic
- Fun, healthy and attractive
- Clear understanding between pedestrians and cyclists in shared use areas.

The corresponding strategic objective and network principles are detailed below.

Strategic Objective

Provide a continuous cycling network that connects communities for people on bikes to encourage cycling as an everyday mode of transport to enable people to travel for work, education, social and recreational purposes.

Principles

Primary Cycling Routes

Provide direct and convenient connections between residential areas and commercial centres, schools, off-road networks.

Provide connections to/from surrounding areas.

Secondary Cycling Routes

Routes that provide connections between Primary routes and within tourism, commercial and residential areas.

7.3 Public Transport

The Otago Regional Council, with support from the Queenstown Lakes District Council and the Transport Agency launched Orbus, a public transport service for Queenstown. The service is an easy, convenient, and affordable way to get around Queenstown with flat-rate fares. The new public transport service has been operating since November 20, 2017. The vision is to provide an efficient, modern and reliable service that becomes part of everyday life for Queenstown locals. While the public transport service provides an affordable alternative to driving, uptake will assist with easing general traffic congestion reducing the impact that private transport has on our environment[15].

Key themes in the discussion regarding public transport included providing strong connections with the airport, Queenstown centre and satellite towns where public transport receives priority over general traffic. With the significant tourism industry in Queenstown and the high reliance on private vehicles (including rental vehicles), in addition to a developer proposed gondola network supporting tourist activities and connectivity in Frankton and surrounds. In general, the discussion on public transport considered the need to cater for and consider:

- Coaches and tourism for pick-up/drop-off
- School buses and routes
- Longer-term 'traditional' public transport provision and a gondola network
- Potential public transport hub / connection point for accommodation providers.

When considering the outcomes sought for a public transport network, the stakeholder group considered the following themes:

- Convenience, demand driven services that are reliable, frequent, safe and inexpensive
- Priorities and more attractive that private vehicle use – first choice for commuters.

An integrated public transport network between transport types e.g. bus, ferry, gondola. The corresponding strategic objective and network principles are detailed below.

Strategic Objective

Promote a connected network for efficient movement between commercial centres and residential catchments to support public transport as an attractive mode of transport.

Principles

Primary Public Transport Routes

Routes that provide major connections between residential, commercial and tourism areas, Frankton and Queenstown Public Transport Hubs, and the Airport.

Routes of higher public transport frequency.

[15] Source: https://www.orc.govt.nz/public-transport/queenstown-buses/bus-information/introducing-the-new-service

Secondary Public Transport Routes

Local routes that complement primary routes providing local access and connectivity.

7.4 General Traffic

General traffic movements typically occur on all links throughout the transport network. While it recognised that general traffic typically has access to the entire road network, general traffic should also allow for other modal networks, promote mode choice, and provide safe journeys. The underpinning approach taken through development of the Network Operating Framework is recognising the fundamental need to make trade-offs in mode priority primarily beginning with general traffic.

The key theme of the discussion around general traffic in Frankton is that stakeholders do not want a car-dominated network – different routes throughout the network have varying levels of importance for general traffic movements. Stakeholders considered that a multi-modal approach was required for the best outcomes and public transport and active modes should lead discussion. The group noted there is a high proportion of intra-regional movements each day, especially on peak days, that travel through Frankton given the geographic placement of Frankton. State Highway 6 and 6a is the predominant access corridor into Queenstown and passed through Frankton with a key connection into Frankton at Hawthorne Drive in Frankton Flats and SH6 Kawarau Road.

Four principles, adopted for general traffic, are in line with application of the Network Operating Framework process. The use of four principles for general traffic (as appose to two for other modes), reflects the level of granularity required to represent and prioritise the different types of general traffic movements through a network.

In developing the strategic objective and principles, the stakeholder group considered the following key themes relating to outcomes sought for general traffic:

- Available for essential trips, not the preferred option for non-essential trips
- Appropriate speed levels
- Reduced dominance with improved integration and access to alternative modes
- Prioritise multiple occupancy and car sharing.

With general traffic, the predominant theme through all discussion was a desire to reduce the dominating level of priority general traffic currently has. Themes reflected a desire to promote active transport and public transport over general traffic recognising there is still a level of access required. A second key discussion point was the significant proportion of rental vehicles on the network given the tourism industry in Queenstown Lakes District, and the need to provide and promote alternative forms of transport for visitors as well as locals.

The corresponding strategic objective and network principles are detailed below.

Strategic Objective

Promote a General Traffic network that focuses on customer journeys that promotes inter-modal connectivity from origin to destination. Encourage routes that are safer and more predictable for general traffic, while address safety and conflict issues in areas with high amenity. In these instances an appropriate response may be speed reductions to reflect the community's aspirations for their neighbourhood.

Principles

Preferred Traffic routes

Provides for longer distance traffic avoiding areas of high land use conflict.

Traffic Routes

Provides for general traffic connectivity with residential and commercial centres to preferred traffic routes.

Local Primary Access Routes

Provides access routes to/from local destinations within the local area. May also provide circulation routes/gateway routes.

Local Secondary Access Routes

Collects and distributes between primary local access routes.

7.5 Freight

Freight movement plays an important role in the Queenstown Lakes District. With the significant tourism industry in operation, efficient and reliable freight movement from large-scale import of goods down to 'just-in-time' delivery is critical to the ongoing success of Queenstown Lakes District.

The key themes during the discussions regarding freight movement in the Frankton network considered providing efficient movement of freight to and from the required destinations. In particular, access to commercial and industrial areas while maintaining a need to minimise disruption on active modes and avoid areas with higher amenity land use.

The key freight access areas in Frankton are the Airport, the commercial centres in Frankton Flats and Remarkables Park and the industrial area along Glenda Drive. Freight network provision and aspirations for Frankton are to consider:

- Connected freight distribution hubs at a local and regional level
- Ability to service town centres by smaller commercial vehicles.

The corresponding strategic objective and network principles are detailed below.

Strategic Objective

Provide a network that facilitates freight movement for local distribution and export mobilising the region to a high level of efficiency and supporting the economy.

Principles

Primary Freight Routes

Provide for inter-regional movements avoiding key land use and areas of high amenity or community value conflicts along routes with restricted access (e.g. state highways).

Secondary Freight Routes

Routes that provide connections linking primary routes to commercial and industrial centres.

Table 2: Frankton Strategic Objectives and Network Principles Summary

Mode	Strategic Objectives	Network Principles
	A network for pedestrians* that provides enjoyable and commuter friendly connections within and throughout Frankton. **Pedestrian network principles consider all forms of active travel (i.e. mobility scooter, running, walking) with the exception of cycling*	*Primary pedestrian* routes* Provide linkages that enable movement in and between areas of high commercial and retail activity, schools, and support connectivity to off-road trails. *Secondary pedestrian* routes* Provides linkages to Primary routes to/from residential and commercial areas, recreational facilities.
	Provide a continuous cycling network that connects communities for people on bikes to encourage cycling as an everyday mode of transport to enable people to travel for work, education, social and recreational purposes.	*Primary cycling routes* Provide direct and convenient connections between residential areas and commercial centres, schools, off-road networks. Provide connections to/from surrounding areas. *Secondary cycling routes*
		Routes that provide connections between Primary routes and within tourism, commercial and residential areas.
	Promote a connected network for efficient movement between commercial centres and residential catchments to support public transport as an attractive mode of transport.	*Primary Public Transport routes* Routes that provide major connections between residential, commercial and tourism areas, Frankton and Queenstown Public Transport Hubs, and the Airport. Routes of higher public transport frequency. *Secondary Public Transport routes* Local routes that complement primary routes providing local access and connectivity.
	Provide a network that facilitates freight movement for local distribution and export mobilising the region to a high level of efficiency and supporting the economy.	*Primary freight routes* Provide for inter-regional movements avoiding key land use and areas of high amenity or community value conflicts along routes with restricted access (e.g. state highways). *Secondary freight routes* Routes that provide connections linking primary routes to commercial and industrial centres.
	Promote a General Traffic network that focuses on customer journeys that promotes inter-modal connectivity from origin to destination. Encourage routes that are safer and more predictable while making trade-offs in areas with high amenity and considering the community's aspirations for their neighbourhood	*Preferred Traffic routes* Provides for longer distance traffic avoiding areas of high land use conflict. *Traffic routes* Provides for general traffic connectivity with residential and commercial centres to preferred traffic routes. *Local Primary Access routes* Provides access routes to/from local destinations within the local area. May also provide circulation routes/Gateway routes. *Local Secondary Access routes* Collects and distributes between primary local access routes

8. Multi-Modal Network Prioritisation

To provide an effective, multi-modal network, a balanced approach takes into account the needs of all transport and road users. A Network Operating Framework takes this approach through development of a strategic road network that defines a roads priority by mode. This moves away from a traditional road hierarchy classification and focuses more on the need to recognise the variety of transport modes, their inter-relationships and the strategic intent for the network. The strategic transport network defines user priority by mode, place and time of day.

Once the strategic road network is established, the network can be input into the SmartRoads Network Operating Framework software tool at a future stage, to provide aspirational performance targets and granular detail on modal priorities. Aspirational performance targets determine the difference between existing and aspirational network performance.

The following section outlines the strategic road networks. Individual maps are in Appendix C.

8.1 Road User Groups

The following road user groups were included when mapping the strategic road network:

- Pedestrians
- Cycling
- Public Transport
- General vehicle traffic
- Freight traffic.

During workshops, stakeholders established an aspirational strategic road network for each road user group. The routes established followed the Principles identified earlier in the process.

8.2 Pedestrians

The strategic pedestrian network, in line with the defined strategic objectives and principles aims to promote walking as a safe, efficient and enjoyable that is also viable transport alternative.

The workshop identified similarities between walking and cycling routes (refer to Section 8.3), identified and that these routes were utilised for both access trip purposes as well as recreation. The development of key connections between schools, the airport, shopping centres, public transport hubs and nodes and recreational facilities for both tourists and residents are desirable.

Figure 11 outlines the draft primary and secondary pedestrian routes developed during the group interactive workshop sessions.

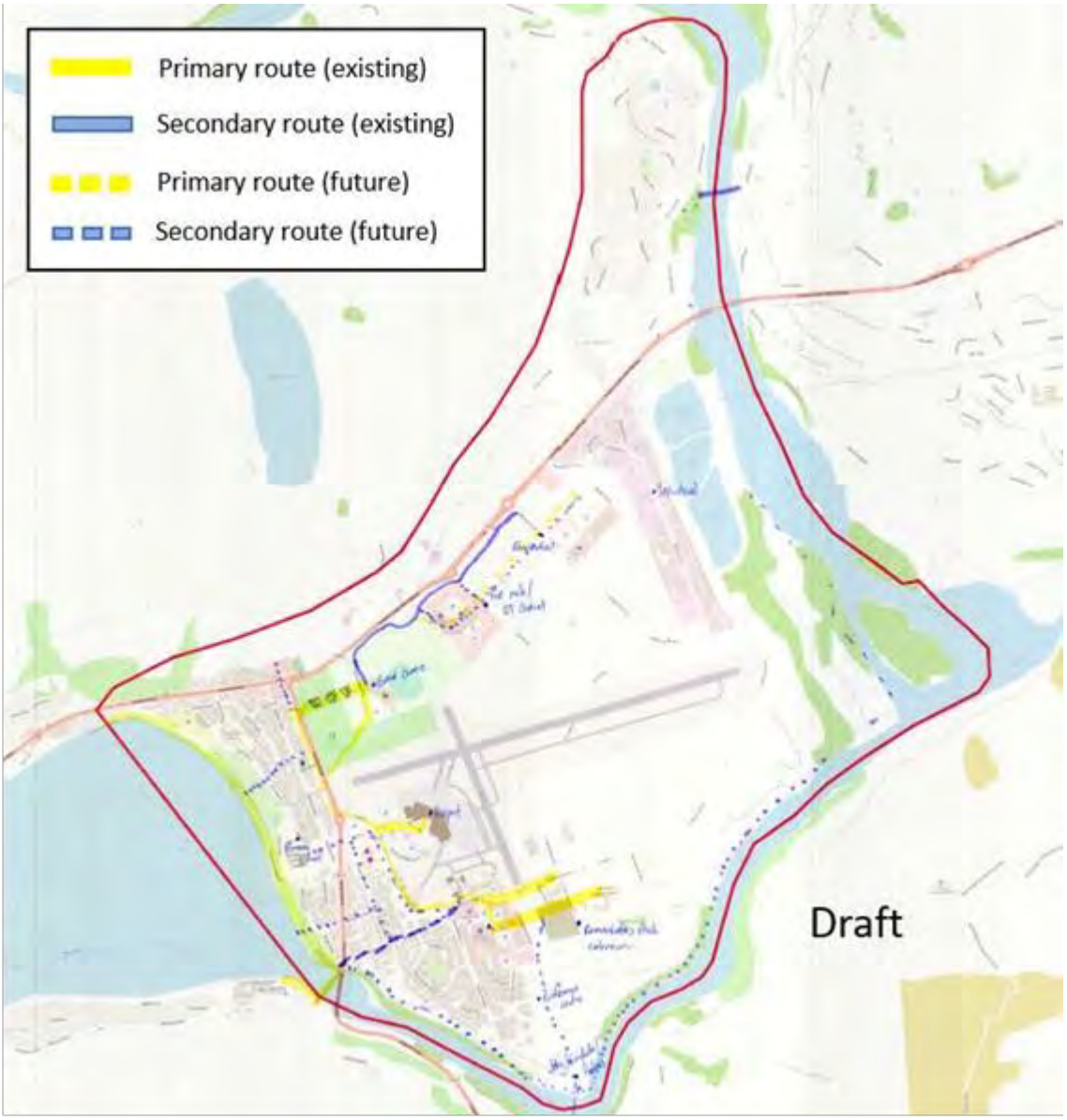

Figure 11: Pedestrian Routes As Identified During the Group Sessions

Five primary pedestrian routes in Frankton identified as follows:

1. The Frankton foreshore from the shared path connected to Queenstown CBD along Frankton Arm to the bridge across the Kawarau River to Kelvin Heights.
2. From the Remarkables Park Town Centre to Wakatipu High School and Remarkables Park (currently this uses Hawthorn Drive, but this will change once current construction ceases). Some considered this a secondary route, however, with development increasing this will continue to be a key link.
3. The Kawarau Road bus stop and the Events Centre.
4. Five Mile Queenstown Central commercial developments and the industrial land to the north-east. There was debate as to whether this should be a primary or secondary route as it is not linked to the 'heart' of the developments.
5. A secondary link – a sealed shared path between the Events Centre and the Five Mile development were also discussed with mixed opinions.

It was also identified that key routes should provide access to and from the airport, with Lucas Place currently being utilised to connect Queenstown Airport to Remarkables Park

A number of 'future' secondary links were also identified. Some of these routes currently exist in parts but could be indirect of nature, not continuous, poor pedestrian crossing facilities resulting in community severance, or of a low level of service that is not adequate in meeting pedestrian needs of varying abilities (e.g. steep grades or mobility impaired). These routes include:

- Across SH6A (Frankton Road) at the Frankton roundabout from the Frankton shops across to the BP petrol station / commercial buildings and further along to the 'hitchhikers' hot spot on SH6
- Direct secondary pedestrian routes connecting the Frankton foreshore to Kawarau Road, including Remarkables Primary School
- Along Douglas Street (Lakes District Hospital)
- Remarkables Park extension connecting the proposed convention centre and Quay Side development (jetty, quay side and hotels)
- A recreational walking trail along the Kawarau River. In Remarkables Park there are two trails at different heights. The lower route is currently the primary, however a trail at the top of the bank is under construction and will become the primary route once open as it is less steep than then the lower route
- The future residential development of Remarkables Park will need good secondary routes linking Hawthorn Drive to the trial along Kawarau River
- There is a proposed commercial / mixed-use housing development on the northern side of SH6 (Frankton Road/Ladies Mile). There is potential for further pedestrian severance linking this development to Five Mile/Queenstown Central due to traffic volumes.

The historic Shotover River Bridge was identified as a secondary route predominantly used by recreational walkers (and both recreational and commuter cyclists). The indirect nature of this link, the lack of pedestrian and cycling facilities on the Shotover River Bridge and the geographic constrains of the lower Shotover River (i.e. span across the river and steepness of riverbanks) inhibits easy walking connecting between Frankton and Shotover Country/Lake Hayes housing developments.

8.3 Cyclists

Figure 12 details the primary and secondary cycling routes identified during the group discussions.

Figure 12: Cycling Routes As Identified During the Group Sessions

A number of primary cycle routes were identified as follows:

- The majority agreed that the existing cycle trails functioned as primary cycle routes, both for recreational and commuter cyclists. These trails provide safe connections, segregated from general traffic; between Frankton and Queenstown are soon to be upgraded to paved surfaces
- The southeast area of Frankton has two cycle trails that are at different heights. The lower route is currently the primary route, however a trail at the top of the bank is under construction and will become the primary route once open as it is less steep than the lower route
- There is also existing cycle trail south/adjacent to SH6 Ladies Mile considered a primary route, which provides connections to the Events Centre and Five Mile/Queenstown Central. This route is likely to require future development to enable cyclists separated from general traffic. There were discussions about how this could occur and whether a new bridge would be required to enable a direct route. The group also discussed whether any future bridge should be located north or south of the State Highway
- The old traffic bridge across the Kawarau River linking Frankton with Peninsula Road was also marked as a primary route. This is a popular route for recreational cyclists heading south on SH6 Kingston Road

- The last existing primary route identified was the cycle trail between SH6 Ladies Mile and Glenda Drive, which provides access for Shotover Country and cyclists from the north/northeast.

In addition to existing routes, a number of future primary cycle links identified are as follows:

- Hawthorne Drive – although this is presently a secondary link, over time the majority of the group felt that there would be a transition of the primary route, particularly for commuter cyclists. After completion of development along the drive, this route would provide a more direct route for cyclists accessing businesses in the Frankton area as well as the Wakatipu High School and Remarkables Park
- Robertson Street is a key future cycle link, due to the existing underpass beneath the new Kawarau River Bridge, which would link to the cycle trail and Remarkables Park
- A potential new bridge to link the proposed jetty/gondola at Quayside to link with Jacks Point to the south
- A link between Lake Hayes Estate to the south side of the Kawarau River into the southeast of the existing cycle trail – however, this would require two new bridges.

Secondary cycle routes, included missing links and future projects, identified as follows:

- The old Shotover Bridge, primarily due to the indirect nature of the route that requires a detour from the desire line across the Shotover River
- A link between Hawthorne Drive and SH6 Kawarau Road (behind the event centre and Five Mile/Queenstown Central
- SH6 and Lucas Place roundabout and the airport, as well as a connection on Lucas Place to link with current cycle facilities on Hawthorne Drive in the vicinity of Remarkables Park
- The current cycle trail with Wakatipu High School, Hawthorne Drive with the proposed jetty/gondola via Cherry Blossom Avenue
- The lake front and McBride street, with some groups suggesting an existing alleyway/walkway could be used (located between 71/75 McBride Street) linking to Lake Avenue
- SH6A Frankton Road and Shoreline Road was mentioned by one group although it was noted that the steep hill/gradient would be difficult for some cyclists
- A future link between the new development to the north of SH6 Ladies Mile was mentioned, with the suggestion of a bridge or underpass at the end of Jims Way could provide a better link with the existing ped/cycle Shotover Bridge. This could also continue north along Tucker Beach Road, although there were concerns about suitability due to steep gradients. As an alternative one person identified a potential future road connection to the SH6 Ladies Mile/Hawthorne Drive Roundabout linking to French Hills Road
- Finally, a future project to achieve behaviour change could be a route to the rear of existing properties, adjacent to the oxidation ponds with connections through to Glenda Drive.

8.4 Public Transport

Existing Public Transport Network

A new public transport network commenced operation on 20 November 2017. The Otago Regional Council with support from the Queenstown Lakes District Council operates the network. The network features of four return bus routes servicing the length and breadth of the Queenstown Lakes District with a hub in Frankton. Figure 13 below is an extract of the network.

Figure 13: Existing Public Transport Network in Frankton[16]

Proposed Public Transport Routes

Figure 14 details the primary and secondary public transport routes identified during the group discussions.

[16] Source: https://www.orc.govt.nz/media/6334/queenstown-bus-timetable-full.pdf

Figure 14: Public Transport Routes As Identified During The Group Sessions

Priority Public Transport Links

The primary public transport routes outlined below identified through focussing on the provision of direct and reliable service between key catchment areas and destinations. The discussion considered travel journeys that commenced and finished outside the Frankton area. The key catchments and destinations listed below:

- Residential Catchment Areas
  - Quail Rise
  - Kelvin Heights
  - Shotover Country
  - Lake Hayes Estate
  - Jacks Point
  - Hanley's Farm

- Destinations within Frankton
  - Event Centre and sporting fields
  - Wakatipu High School
  - Queenstown Central and Five Mile retail and commercial areas
  - Remarkables Park shopping centre, hotels and convention centre
  - Glenda Drive industrial area
  - Hospital
  - Airport
  - Quayside – hotels, ferry terminus and waterfront t area as part of the Remarkable Park development, key attractor and destination
- Destinations outside of Frankton:
  - Queenstown town centre
  - Ski fields – Cadorna, The Remarkables

With these key catchments and destinations, the following primary routes identified:

- SH6 Shotover Bridge to Frankton Road (SH6A)
- SH6 Kawara Falls Bridge to Frankton Road (SH6A)
- SH6/Humfrey St to Remarkable Park / Wakatipu High School
- Remarkable Park / Wakatipu High School to Hawthorne Drive / SH6
- SH6/ Lucas Ave to Queenstown Airport.

The group raised destinations such as ferry connections, the lakefront, primary schools and river frontage for consideration. The group noted that due to the intent of primary routes, there may not be secondary routes, or secondary routes may occur with small route deviations.

An important aspect discussed was the need for public transport routes to link with active modes and to the have appropriate supporting facilities. This is key to providing a multi-modal and connected network that is not reliant on private vehicle transport.

Park and Ride facilities was discussed by the group with most in agreement that they need to be on the outer areas of the residential catchments with considerable discussion about the need to drive to public transport hubs/routes given the catchment areas.

The use of gondolas for mass transit was considered and the group agreed they would need to service both tourists and commuters with multiple stops. The two routes discussed were as follows:

1. Quayside - Remarkables Park – Lake Hayes Estate – Remarkables Ski Field.
2. Lake Hayes Estate – Shotover Country – Frankton North (specific sites not yet determined) – Queenstown town centre.

The first route has been in consideration for a number of years and has potential extensions to Queenstown Airport, Kelvin Heights, Queenstown Town Centre and Jacks Point.

The second route is commuter focussed with the Frankton hubs being particularly important.

Ferry services and locations considered for Frankton acknowledged that locations are preliminary and that connections to public transport options will require design.

8.5 General Traffic

As outlined in the strategic objective, the general traffic network aims to focuses on customer journeys that promote inter-modal connectivity from origin to destination. In particular, the need for the network to encourage routes that are safer while making trade-offs in areas with high amenity and considering the community's aspirations for their neighbourhood.

It was noted that the general traffic priority network should complement public transport and active mode networks while providing opportunities for inter-modal, inter-regional and commuter connectivity.

Figure 15 details the general traffic routes identified during the group discussions.

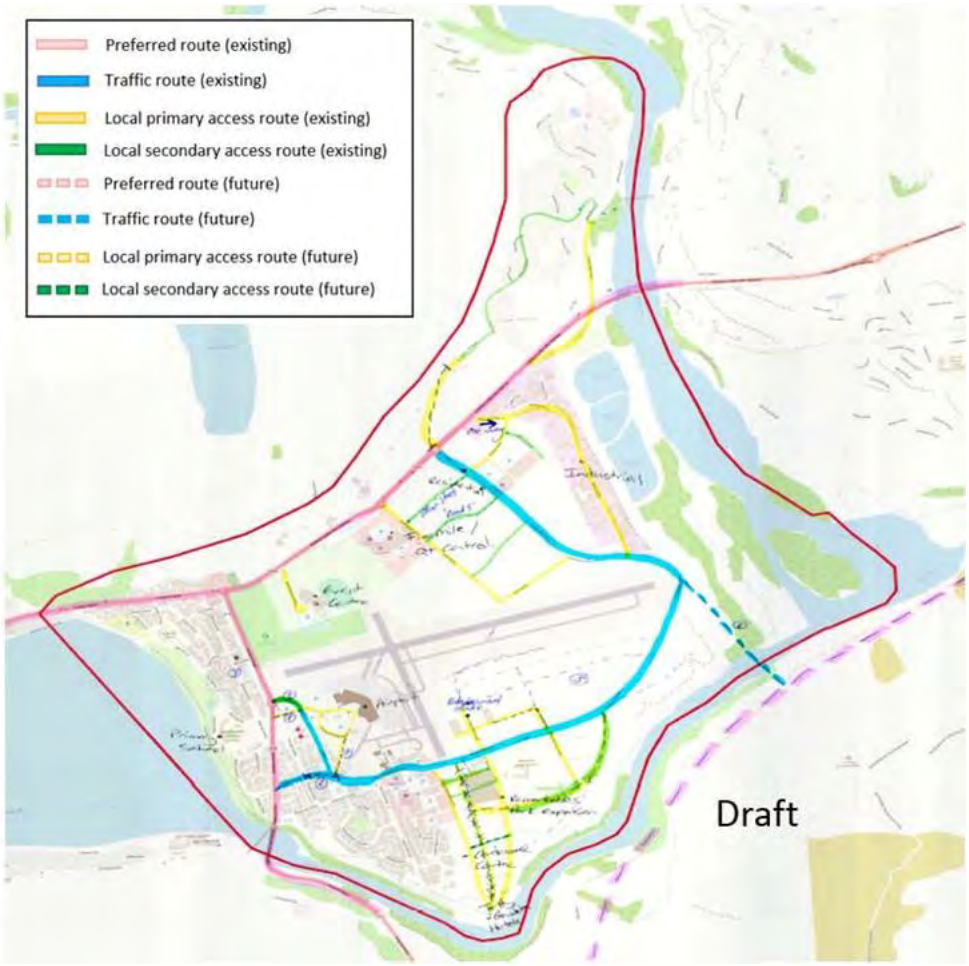

Figure 15: General Traffic Routes As Identified During The Group Sessions

The general traffic routes are break down into four tiers as follows:

Preferred Traffic Routes provide for longer distance traffic avoiding areas of high land use conflict. In the Frankton area, only the State Highways were identified and considered for preferred traffic route priority. The intention being an alternative movement from the developing Jacks Point area avoiding from Frankton.

Traffic Routes provide for general traffic connectivity with residential and commercial centres to preferred traffic routes. Hawthorne Drive was considered the only traffic route important to provide this function with a connection to State Highway 6 Kawarau Road via Lucas Place. An alternative connection to SH6 considered a new connection along Robertson Street. This would provide a more direct connection and avoid the Airport access way.

A future traffic route connecting Hawthorne Drive to a potential future SH6 bypass connection on the south-eastern side of Kawarau River over an additional Kawarau River Bridge was also considered. It is noted that both the 'bypass' and connector routes marked as potential future links are not currently under investigation or development, these are concept ideas generated during the workshop for future consideration at a network level.

Local Primary Access Routes provide access routes to/from local destinations within the local area. May also provide circulation routes/Gateway routes. A number of local primary access routes were identified. These largely support connections to proposed and existing recreational, commercial and industrial centres such as the airport, the Remarkables Park Quayside development area, the events centre, Glenda Drive (industrial area connection to SH6) and Five Mile / Queenstown Central.

Local Secondary Access Routes collect and distribute between primary local access routes. In Frankton these included Ferry Hill Drive through Quail Rise, connecting streets between Grant Road and Hawthorne Drive, and a new proposed road in the Remarkables Park development from Hawthorne Drive south of Wakatipu High School connecting to Cherry Blossom Avenue.

8.6 Freight

Figure 16 details the primary and secondary freight routes identified during the group discussions.

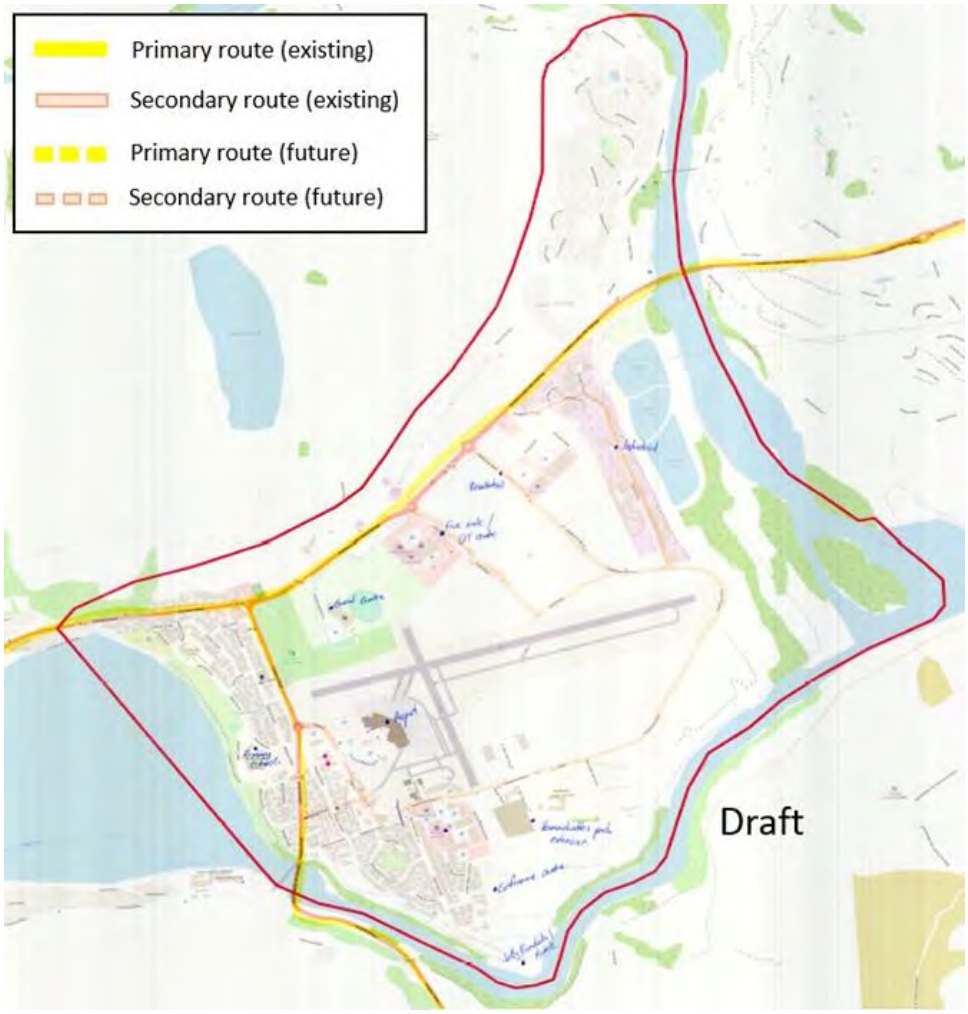

Figure 16: Freight Routes As Identified During the Group Sessions

9. Modal Priority Conflicts

The following locations are where future conflicts may occur, where roads or corridors have several modes competing for priority. This Network Operating Framework does not specifically provide 'solutions' to priority conflict areas, however, the following section discusses how the different modes could be considered when addressing competing demands.

During the workshop stakeholders were able to identify where they considered modal conflicts would occur in the future (and where conflicts currently occur). The conflicts occur on the roads or corridors that have several modes at a single location. Key conflict points that stakeholders identified are shown in Figure 17 below.

Figure 17: Modal Conflict Areas

9.1 Airport Roundabout

Concerns were raised about the speed of general traffic movements at this intersection, which conflicts with pedestrians and cyclists. In addition, delays to public transport services were highlighted as the airport access currently prioritises general traffic. A new car park access has been added to the roundabout as a fourth arm which the intersection was not initially designed for. Douglas Street was noted as an area where airport staff and passengers park – fast traffic area.

9.2 Shotover Bridge

Conflicts with general travel, public transport and active modes. The desire line for all modes is across the bridge. An alternative crossing for active modes is located to the north-west, however this results in a detour (not direct), and suitability for mobility scooters was raised as an issue.

9.3 Events Centre and SH6

Pedestrians and cyclists conflict with general traffic when accessing the events centre/commercial area and have to cross SH6 – limited footpath provision in this area and limited crossing facilities.

9.4 SH6 / SH6A Frankton Road (BP Roundabout)

With traffic growth pressures on SH6A and SH6 the colloquially named BP roundabout has accommodated large increases in travel demand. The intersection between SH6 and SH6A needs to accommodate substantial demand on all three major legs, and is currently unable to do so in its current form. Coupled with the demands for active modes of transport, the limited facilities available in this location do not adequately support and promote uptake of walking and cycling.

In terms of strategic priorities, all modes had some level of priority discussed at this location resulting in a high level of conflicting mode priorities at this intersection. Stakeholders noted level of general traffic growth from Shotover Country and Hanley Farm which is likely to exacerbate issues in the future. A conflict between movement and place function was raised for this location (public transport hub, events centre, main traffic route).

9.5 State Highway 6 Kawarau Road

In Frankton the State Highway network comprising SH6 causes a severance between the lakefront and existing residential area to schools and commercial centres.

The location of the primary school and residential dwellings on opposite sides of the road result in conflicts between general traffic and pedestrians and cyclists trying to cross the road, this particularly occurs during school pick up/drop off times. The current 70km speed limit was noted and visibility of the current signalised crossing for fast moving general traffic coming up the hill. Also noted key emergency service accesses to the fire station and hospital.

10. Application of Network Operating Framework

This Network Operating Framework focussed on the development of Strategic Objectives and Principles followed by assigning network priorities. The following outlines the applications of the Network Operating Framework.

10.1 Master Plan and Integrated Transport Programme Business Case

Queenstown Lakes District Council commenced master planning for Frankton in late 2018. The Master Plan is being undertaken concurrently with an Integrated Transport Programme Business Case with a similar geographic scope to this Network Operating Framework. The business case and master plan are being developed with input from elements of this NOF, as are adjacent business cases[17]. The business case is considering multi-modal interventions as well as travel demand management for the area of Frankton.

The Network Operating Framework is a tool that provides the required transport inputs for the masterplan by considering the conflict points on a future aspirational transport network. The outputs indicate which transport corridors are suitable for altering to provide for modes i.e. support a place function, and what roads are required to place an emphasis on throughput to cater for the transport requirements.

10.2 Network Operating Framework lifecycle

This Network Operation Framework is a live document based on the outcome of workshop sessions with stakeholders. This Network Operating Framework is being used to inform strategic planning through the Master Planning and Integrated Transport Programme Business Case. Conversely, changes in policy, land use and the network, as well as outcomes from Master Planning and Business Cases may alter thinking with a more refined understanding. As such, this Network Operating Framework is considered ‘live’ and an iterative approach can be undertaken so that the framework compliments and supports outcomes. This may result in changes to primary or secondary routes for modes of transport; however, these would be justified and informed at future stages.

Appendices

Appendix A – Strategic Objectives and Principles

Table 1 Frankton Strategic Objectives and Network Principles

Policy and Planning documentation	Strategic Objectives and Network Principles
Pedestrians **Draft Government Policy Statement on Land Transport 2018/19-2027/28:** The strategic direction of GPS 2018 is demonstrated through its 2 key strategic priorities, and 2 supporting strategic priorities. Key Strategic Priorities: • Safety • Access Supporting Strategic Priorities: • Value for Money • Environment Themes have been included in the GPS to assist understanding of how to effectively deliver on the priorities. The themes influence how the results should be delivered to ensure the best transport solutions for New Zealand are achieved. The themes for GPS 2018 are: • a mode-neutral approach to transport planning and investment decisions • incorporating technology and innovation into the design and delivery of land transport investment • integrating land use and transport planning and delivery Environment in the GPS 2018 supports a mode shift to lower emission forms of transport, including walking, cycling, public transport and lower emission vehicles (such as electric vehicles). It also recognises the public health benefits of reducing harmful transport emissions and increasing uptake of walking and cycling. Access in the GPS 2018 and the increased focus on urban centres is to ensure that transport and land use planning reduces the need to travel by private motor vehicle by supporting a mode shift for trips in urban centres from single occupant private vehicles to more efficient, low cost modes like walking, cycling and public transport. **NZTA Statement of Intent 2017-21:** This Statement of Intent outlines the Transport Agency's strategy of working to deliver three big changes that form the foundation of their new direction: • One connected transport system: Transform the performance of the land transport system by integrating digital technology with physical infrastructure to create a safe, connected system that works for everyone. • People-centred services: Simplify our customers' lives and our partners' work with innovative services and experiences that make it easy for them to do what they need to. • Partnerships for prosperity: Unlock social and economic opportunities for customers, businesses and communities through targeted partnerships. These changes have been targeted into eight focus areas that have clear measurable outcomes for customers and New Zealanders: • Shape the land transport system • Target rapid growth • Connect and develop regions • Keep people safe • Improve customer experiences • Deliver connected journeys • Achieve Organisational excellence • Transform the Transport Agency **Otago Southland Regional Land Transport Plans 2015-2021:** The long-term goal set by the Committee for land transport in Otago Southland is to provide accessible transport connections, giving users an appropriate choice of modes, and to gain improved performance from the land transport system, by focusing on: road safety, economic growth and productivity, and value for money. Walking, delivering on priorities: • Users being able to access the network, in a manner that is convenient and affordable to users and funders. • The network is reliable and resilient, helping community resilience. • The social cost of crashes and accidents is substantially reduced. **Regional Policy Statement Review Consultation Draft 2014:** Good quality infrastructure meets community needs. Roads networks support our communities, economy, and health and safety. Integrating infrastructure with urban growth and development is essential to ensure it occurs in a sustainable and efficient manner.	**A network for pedestrians* that provides enjoyable and commuter friendly connections within and throughout Frankton.** *Primary pedestrian* routes:* Provide linkages that enable movement in and between areas of high commercial and retail activity, schools, and support connectivity to off-road trails. *Secondary pedestrian* routes:* Provides linkages to Primary routes to/from residential and commercial areas, recreational facilities. *Pedestrian network principles consider all forms of active travel (i.e. mobility scooter, running, walking) with the exception of cycling.

Otago Regional Council Annual Plan 2017 – 2018: Our transport activities contribute to the following community outcomes. *The environmental, economic, social, cultural needs of the Otago people are met.*

Otago Regional Council Strategic Plan 2014: Transport is one of nine areas of focus identified in this plan.
Description:
- While there is a well-developed roading network, travel throughout Otago is vulnerable to disruption because of weather events, natural hazards and crashes.
- Conflict between transport modes and actions of travellers reduces travel safety.

The Opportunity:
- State highways and local roads, cycle-paths and walkways operate as an uninterrupted single network to enable people to travel for work, education, social and recreation reasons; and freight movement for local distribution and export, thereby mobilising the region to a high level of efficiency and supporting the economy.
- Investment in maintenance of natural and physical resources and amenity values of Otago by the implementation of measures that limit unacceptable effects from the transport network providing value for money.
- Continuous access throughout Otago as a result of well-considered expenditure on the transport network.
- Safe individual and community travel using a variety of connected travel modes, within and between centres throughout Otago, and with the rest of New Zealand.

Approach:
- Provide clear definition of valued areas so that they are protected from the effects of use, maintenance and development of the transport network.
- Set standards to address the causes of factors that may have adverse effects on natural and physical resources and amenity values.
- Develop proposals to address safe and efficient transport of people and freight through coordinated transport expenditure achieving a single integrated network.
- Provision for an appropriate variety of transport modes that meet the needs of industry, lifestyle and tourism.

Outcome sought:
- People and communities can safely and efficiently access natural and physical resources for social and economic activities, including land use and development, by appropriate transport modes.

Queenstown Lakes District Council Annual Plan 2017-18: Our long-term council outcome is to provide high performing infrastructure and services that: meet current and future user needs and are fit for purpose, are cost effective and efficiently managed on a full life-cycle basis, and are affordable for the District.

Queenstown Lakes District Council 10-Year Plan 2018-28 Consultation Document: The 10-Year Plan outlines one of the big issues facing the district is maintaining vibrant, accessible town centres is vital to keeping the district liveable. This particularly applies to the two main centres of Queenstown and Wanaka.
The ten-year plan acknowledges that $0.4M has been included in 2018/19 for the development of the Frankton Masterplan. While there is also money allocated towards parking facilities, public transport, pedestrianizing the Shotover Bridge and town centres and the investigation and implementation of pedestrian and cycle connections outside of the town centres.

Queenstown Lakes District Council 10-Year Plan 2015-25 Volume 1: The Council provides a road and footpath network that accommodates seasonal and future growth.

Queenstown Lakes District Council Operative District Plan 2007:
A well-managed transport system needs to:
- be sustainable
- maximise safety
- cater for all modes of transport
- minimise adverse effects
- minimise energy usage
- minimise conflicts with other land uses and amenity values, especially landscape, visual, heritage and pedestrian amenities.

Queenstown Lakes District Council Transport Strategy Summary 2016: Queenstown town centre transport strategy- Preserve and improve resident and visitor enjoyment of the town centre by reducing congestion and leading a necessary shift away from reliance on private cars.

Parking Strategy for Frankton: Due December 2019, the parking strategy for Frankton will consider the following key issues:
- the parking types and patterns in the residential area
- what level of control is needed for protecting grass verges
- the parking types and patterns within Glenda Drive industrial zone (how to best use the available road space, particularly relating to on=street loading zones)
- the impact that SH6 parking removal has had on the Frankton residential area; and
- how to manage parking at the waterfront

Queenstown Integrated Transport Programme Business Case 2017: The Queenstown area is experiencing unprecedented levels of growth, which has significant implications for the transport network. The exponential growth has led to congestion and traditional transport strategies and response to growth are no longer working in the Queenstown environment. The recommended programme includes the following key activities:

- Making public transport an attractive and viable alternative to the private car through improvements to service provision, and the introduction of bus priority, park and ride and a Mass Rapid Transit corridor between Queenstown and Frankton.
- Altering cost, provision and management of parking across the area to support the goals of reducing private vehicle usage, and encouraging greater use of public transport
- Completing key infrastructure projects for vehicular and active modes, including a new town centre arterial to facilitate economic growth, better provision for public transport and access for pedestrians, and removing unnecessary vehicle movements in the most congested areas of the town centre.

Draft Queenstown Lakes District on foot, by cycle strategy 2008: The council's strategy is in line with the national vision. *A New Zealand where people from all sectors of the community walk and cycle for transport and enjoyment*. The broad outcomes sought by this strategy are to see more people walking and cycling and greater satisfaction within the community with the ease, safety and security of walking and cycling in the district. If these things are achieved, a positive contribution is being made to the quality of the district as a place to live and visit.

Queenstown Lakes District Council Strategy for the Procurement of Transport Infrastructure Services: Community outcome aligned to the LTP. Effective and efficient infrastructure that meets the needs of growth.

Queenstown Lakes District Council Economic Development Strategy 2015: A follow-up document to the Economic Futures Taskforce report which builds on on the methods and analysis of this work and supplements it with detailed and evidence-based assessment. The aim of this strategy is to address key economic development priorities which have been identified.
The strategy notes that the road network is reliant on a few main road routes which present connectivity risks for the district. These routes (such as SH6) experience peak hour congestion and at present traffic is predicted to slow to 20 km/h in 20 years.
There are plans in place to address this, however it is a significant cost to the Council and NZTA.

Queenstown Lakes District Council Land Transport Activity Management Plan 2018-19 to 2032-33: QLDC's vision for land transport is to provide a safe, resilient, efficient transport system that supports modal choice and addresses current and future demand for economic and social opportunities.
Future Link Transport and Parking Strategy 2005: Transport policy and investment will contribute to the community outcome, effective and efficient infrastructure that meets the needs of growth by:

- Ensuring all modes of transport have a means to enter transport networks efficiently and effectively, and once there, move between 'destinations' effectively and efficiently.
- Having a balanced approach to meeting traffic demand. This means having some roading improvement and also providing alternatives such as public transport. A public transport system, even at a basic level, will require significant infrastructure to ensure efficient operation.

Queenstown Lakes District Council Urban Design Strategy: Connections – transport and land use. The urban form of a town or neighbourhood has a direct impact on its residents' lifestyle options. This makes it worthwhile to consider the community's aspirations for their neighbourhood, before committing to a street pattern and roading layout.

Queenstown Lakes District Council Infrastructure Strategy 2015-2045: Key strategies are linked to the 10 Ten year Plan 2015-2025.

Cyclists

Draft Government Policy Statement on Land Transport 2018/19-2027/28: The strategic direction of GPS 2018 is demonstrated through its 2 key strategic priorities, and 2 supporting strategic priorities.
Key Strategic Priorities:

- Safety
- Access

Supporting Strategic Priorities:

- Value for Money
- Environment

Themes have been included in the GPS to assist understanding of how to effectively deliver on the priorities. The themes influence how the results should be delivered to ensure the best transport solutions for New Zealand are achieved. The themes for GPS 2018 are:

- a mode-neutral approach to transport planning and investment decisions
- incorporating technology and innovation into the design and delivery of land transport investment
- integrating land use and transport planning and delivery

Provide a continuous cycling network that connects communities for people on bikes to encourage cycling as an everyday mode of transport to enable people to travel for work, education, social and recreational purposes.

Primary cycle routes: Provide direct and convenient connections between residential areas and commercial centres, schools, off-road networks.

Secondary cycle routes: Routes that provide connections between Primary routes and within tourism, commercial and residential areas.

NZTA Statement of Intent 2017-21:
This Statement of Intent outlines the Transport Agency's strategy of working to deliver three big changes that form the foundation of their new direction:
- One connected transport system: Transform the performance of the land transport system by integrating digital technology with physical infrastructure to create a safe, connected system that works for everyone.
- People-centred services: Simplify our customers' lives and our partners' work with innovative services and experiences that make it easy for them to do what they need to.
- Partnerships for prosperity: Unlock social and economic opportunities for customers, businesses and communities through targeted partnerships.

These changes have been targeted into eight focus areas that have clear measurable outcomes for customers and New Zealanders:
- Shape the land transport system
- Target rapid growth
- Connect and develop regions
- Keep people safe
- Improve customer experiences
- Deliver connected journeys
- Achieve Organisational excellence
- Transform the Transport Agency

Otago Regional Council Long Term Plan 2015 – 2025: ORC continues to manage the provision of public passenger transport services for Dunedin and Queenstown. The aim is to ensure a viable, quality service is delivered that will attract patronage growth and which will be affordable for passengers and ratepayers alike.

Otago Southland Regional Land Transport Plans 2015-2021: The long-term goal set by the Committee for land transport in Otago Southland is to provide accessible transport connections, giving users an appropriate choice of modes, and to gain improved performance from the land transport system, by focusing on: road safety, economic growth and productivity, and value for money.
Cycling, delivering on priorities:
- Users are able to access the network, in a manner that is convenient and affordable to users and funders.
- The network is reliable and resilient, helping community resilience.
- The social cost of crashes and accidents is substantially reduced.

Regional Policy Statement Review Consultation Draft 2014: Good quality infrastructure meets community needs. Roads networks support our communities, economy, and health and safety. Integrating infrastructure with urban growth and development is essential to ensure it occurs in a sustainable and efficient manner.

Otago Regional Council Annual Plan 2017 – 2018: Our transport activities contribute to the following community outcomes. *The environmental, economic, social, cultural needs of the Otago people are met.*

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Description:
- While there is a well-developed roading network, travel throughout Otago is vulnerable to disruption because of weather events, natural hazards and crashes.
- Conflict between transport modes and actions of travellers reduces travel safety.

The Opportunity:
- State highways and local roads, cycle-paths and walkways operate as an uninterrupted single network to enable people to travel for work, education, social and recreation reasons; and freight movement for local distribution and export, thereby mobilising the region to a high level of efficiency and supporting the economy.
- Investment in maintenance of natural and physical resources and amenity values of Otago by the implementation of measures that limit unacceptable effects from the transport network providing value for money.
- Continuous access throughout Otago as a result of well-considered expenditure on the transport network.
- Safe individual and community travel using a variety of connected travel modes, within and between centres throughout Otago, and with the rest of New Zealand.

Approach:
- Provide clear definition of valued areas so that they are protected from the effects of use, maintenance and development of the transport network.
- Set standards to address the causes of factors that may have adverse effects on natural and physical resources and amenity values.
- Develop proposals to address safe and efficient transport of people and freight through coordinated transport expenditure achieving a single integrated network.
- Provision for an appropriate variety of transport modes that meet the needs of industry, lifestyle and tourism.

Outcome sought:
- People and communities can safely and efficiently access natural and physical resources for social and economic activities, including land use and development, by appropriate transport modes.

Queenstown Lakes District Council Annual Plan 2017-18: Our long-term council outcome is to provide high performing infrastructure and services that: meet current and future user needs and are fit for purpose, are cost effective and efficiently managed on a full life-cycle basis, and are affordable for the District.

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The ten-year plan acknowledges that $0.4M has been included in 2018/19 for the development of the Frankton Masterplan. While there is also money allocated towards parking facilities, public transport, pedestrianizing the Shotover Bridge and town centres and the investigation and implementation of pedestrian and cycle connections outside of the town centres.

Queenstown Lakes District Council 10-Year Plan 2015-25 Volume 1: The Council provides a road and footpath network that accommodates seasonal and future growth.

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A well-managed transport system needs to:
- be sustainable
- maximise safety
- cater for all modes of transport
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- Altering cost, provision and management of parking across the area to support the goals of reducing private vehicle usage, and encouraging greater use of public transport
- Completing key infrastructure projects for vehicular and active modes, including a new town centre arterial to facilitate economic growth, better provision for public transport and access for pedestrians, and removing unnecessary vehicle movements in the most congested areas of the town centre.

Draft Queenstown Lakes District on foot, by cycle strategy 2008: The council's strategy is in line with the national vision. *A New Zealand where people from all sectors of the community walk and cycle for transport and enjoyment*. The broad outcomes sought by this strategy are to see more people walking and cycling and greater satisfaction within the community with the ease, safety and security of walking and cycling in the district. If these things are achieved, a positive contribution is being made to the quality of the district as a place to live and visit.
Queenstown Lakes District Council Strategy for the Procurement of Transport Infrastructure Services: Community outcome aligned to the LTP. Effective and efficient infrastructure that meets the needs of growth.

Queenstown Lakes District Council Economic Development Strategy 2015: A follow-up document to the Economic Futures Taskforce report which builds on on the methods and analysis of this work and supplements it with detailed and evidence-based assessment. The aim of this strategy is to address key economic development priorities which have been identified.
The strategy notes that the road network is reliant on a few main road routes which present connectivity risks for the district. These routes (such as SH6) experience peak hour congestion and at present traffic is predicted to slow to 20 km/h in 20 years.
There are plans in place to address this, however it is a significant cost to the Council and NZTA.

Queenstown Lakes District Council Land Transport Activity Management Plan 2018-19 to 2032-33: QLDC's vision for land transport is to provide a safe, resilient, efficient transport system that supports modal choice and addresses current and future demand for economic and social opportunities.

Future Link Transport and Parking Strategy 2005: Transport policy and investment will contribute to the community outcome, effective and efficient infrastructure that meets the needs of growth by:
- Ensuring all modes of transport have a means to enter transport networks efficiently and effectively, and once there, move between 'destinations' effectively and efficiently.

Queenstown Lakes District Council Urban Design Strategy: Connections – transport and land use. The urban form of a town or neighbourhood has a direct impact on its residents' lifestyle options. This makes it worthwhile to consider the community's aspirations for their neighbourhood, before committing to a street pattern and roading layout. **Queenstown Lakes District Council Infrastructure Strategy 2015-2045:** Key strategies are linked to the 10 Ten Year Plan 2015-2025.	
 # Public Transport **Draft Government Policy Statement on Land Transport 2018/19-2027/28:** The strategic direction of GPS 2018 is demonstrated through its 2 key strategic priorities, and 2 supporting strategic priorities. Key Strategic Priorities: • Safety • Access Supporting Strategic Priorities: • Value for Money • Environment Themes have been included in the GPS to assist understanding of how to effectively deliver on the priorities. The themes influence how the results should be delivered to ensure the best transport solutions for New Zealand are achieved. The themes for GPS 2018 are: • a mode-neutral approach to transport planning and investment decisions • incorporating technology and innovation into the design and delivery of land transport investment • integrating land use and transport planning and delivery **The National Infrastructure Plan:** A public transport system that is robust and effective and offers a range of user options that will attract a greater percentage of long term users. **NZTA Statement of Intent 2017-21:** This Statement of Intent outlines the Transport Agency's strategy of working to deliver three big changes that form the foundation of their new direction: • One connected transport system: Transform the performance of the land transport system by integrating digital technology with physical infrastructure to create a safe, connected system that works for everyone. • People-centred services: Simplify our customers' lives and our partners' work with innovative services and experiences that make it easy for them to do what they need to. • Partnerships for prosperity: Unlock social and economic opportunities for customers, businesses and communities through targeted partnerships. These changes have been targeted into eight focus areas that have clear measurable outcomes for customers and New Zealanders: • Shape the land transport system • Target rapid growth • Connect and develop regions • Keep people safe • Improve customer experiences • Deliver connected journeys • Achieve Organisational excellence • Transform the Transport Agency **Otago Regional Council Long Term Plan 2015 – 2025:** ORC continues to manage the provision of public passenger transport services for Dunedin and Queenstown. The aim is to ensure a viable, quality service is delivered that will attract patronage growth and which will be affordable for passengers and ratepayers alike. **Otago Regional Public Transport Plan 2014:** Regional Public Transport Plan ('Plan') sets out priorities and needs for public transport services and infrastructure in Otago. The plan details: • public transport services available in the region • policies that apply to those services • information and infrastructure that supports those services. The Plan encourages ORC, district/city councils (within regional boundary), and bus operators, to work together to meet the needs of Otago passenger transport customers. For public transport services in Otago, ORC expect: • coordinated public transport services • that good service reliability, frequency, coverage, and integration between services will encourage more users • that the public transport market will enable operators to compete for services, increasing your confidence in services being priced appropriately • to incentivise operators to increase patronage and reduce the reliance on government money for public transport services	**Promote a connected network for efficient movement between commercial centres and residential catchments to support public transport as an attractive mode of transport.** *Primary public transport routes:* Routes that provide major connections between residential, commercial and tourism areas, Frankton and Queenstown Public Transport Hubs, and the Airport. *Secondary public transport routes:* Local routes that complement primary routes providing local access and connectivity

• planning and procurement of public transport services to be transparent. **Otago Southland Regional Land Transport Plans 2015-2021:** The long-term goal set by the Committee for land transport in Otago Southland is to provide accessible transport connections, giving users an appropriate choice of modes, and to gain improved performance from the land transport system, by focusing on: road safety, economic growth and productivity, and value for money. Public passenger transport (scheduled/unscheduled services, taxis, shuttles, private hire), delivering on priorities: • Users are able to access the network, in a manner that is convenient and affordable to users and funders. • The network is reliable and resilient, helping community resilience. • Value for money. **Regional Policy Statement Review Consultation Draft 2014:** Good quality infrastructure meets community needs. Roads networks support our communities, economy, and health and safety. Integrating infrastructure with urban growth and development is essential to ensure it occurs in a sustainable and efficient manner. **Otago Regional Council Annual Plan 2017 – 2018:** Our transport activities contribute to the following community outcomes. *The environmental, economic, social, cultural needs of the Otago people are met.* **Otago Regional Council Strategic Plan 2014:** Transport is one of nine areas of focus identified in this plan. Description: • While there is a well-developed roading network, travel throughout Otago is vulnerable to disruption because of weather events, natural hazards and crashes. • Conflict between transport modes and actions of travellers reduces travel safety. The Opportunity: • State highways and local roads, cycle-paths and walkways operate as an uninterrupted single network to enable people to travel for work, education, social and recreation reasons; and freight movement for local distribution and export, thereby mobilising the region to a high level of efficiency and supporting the economy. • Investment in maintenance of natural and physical resources and amenity values of Otago by the implementation of measures that limit unacceptable effects from the transport network providing value for money. • Continuous access throughout Otago as a result of well-considered expenditure on the transport network. • Safe individual and community travel using a variety of connected travel modes, within and between centres throughout Otago, and with the rest of New Zealand. Approach: • Provide clear definition of valued areas so that they are protected from the effects of use, maintenance and development of the transport network. • Set standards to address the causes of factors that may have adverse effects on natural and physical resources and amenity values. • Develop proposals to address safe and efficient transport of people and freight through coordinated transport expenditure achieving a single integrated network. • Provision for an appropriate variety of transport modes that meet the needs of industry, lifestyle and tourism. Outcome sought: • People and communities can safely and efficiently access natural and physical resources for social and economic activities, including land use and development, by appropriate transport modes. **Queenstown Lakes District Council Annual Plan 2017-18:** Our long-term council outcome is to provide high performing infrastructure and services that: meet current and future user needs and are fit for purpose, are cost effective and efficiently managed on a full life-cycle basis, and are affordable for the District. **Queenstown Lakes District Council 10-Year Plan 2018-28 Consultation Document:** The 10-Year Plan outlines one of the big issues facing the district is maintaining vibrant, accessible town centres is vital to keeping the district liveable. This particularly applies to the two main centres of Queenstown and Wanaka. The ten-year plan acknowledges that $0.4M has been included in 2018/19 for the development of the Frankton Masterplan. While there is also money allocated towards parking facilities, public transport, pedestrianizing the Shotover Bridge and town centres and the investigation and implementation of pedestrian and cycle connections outside of the town centres. **Queenstown Lakes District Council 10-Year Plan 2015-25 Volume 1:** The Council provides a road and footpath network that accommodates seasonal and future growth. **Queenstown Lakes District Council Operative District Plan 2007:** A well-managed transport system needs to: • be sustainable • maximise safety • cater for all modes of transport • minimise adverse effects • minimise energy usage • minimise conflicts with other land uses and amenity values, especially landscape, visual, heritage and pedestrian amenities.	

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Queenstown Lakes District Council Economic Development Strategy 2015: A follow-up document to the Economic Futures Taskforce report which builds on on the methods and analysis of this work and supplements it with detailed and evidence-based assessment. The aim of this strategy is to address key economic development priorities which have been identified.
The strategy notes that the road network is reliant on a few main road routes which present connectivity risks for the district. These routes (such as SH6) experience peak hour congestion and at present traffic is predicted to slow to 20 km/h in 20 years.
There are plans in place to address this, however it is a significant cost to the Council and NZTA.

Queenstown Lakes District Council Land Transport Activity Management Plan 2018-19 to 2032-33: QLDC's vision for land transport is to provide a safe, resilient, efficient transport system that supports modal choice and addresses current and future demand for economic and social opportunities.
To meet this vision and new business model QLDC through this Business Case Approach Activity Management Plan (BCA AMP) must:

- Monitor, address and embed growth in all transport activities
- Focus on customer journeys, from origin to destination, that span across network boundaries and modes. To this end, it will be the catalyst to more collaborative working arrangements across the Otago/Southland region, and with other transport providers such as NZ Transport Agency (NZTA) State Highways, Queenstown Airport Corporation (QAC) and Otago Regional Council (ORC)
- Enable customers to better assess service delivery options and their costs against the nationally consistent customer outcomes of the ONRC in an appropriate way for the QLDC network
- Demonstrate where QLDC's network performance and cost of delivery sits on a comparative basis to similar networks i.e. self-benchmarking analysis
- Use the Business Case Approach (BCA) and the ONRC framework to provide Councillors and co-investors a more consistent and coherent platform for decision making
- Further develop robust evidence-based cases for investment, ensuring understanding of the asset lifecycle, the costs and options
- Enhance its capability to deliver greater value for money from its existing infrastructure assets, and give greater consideration to customer focussed transport solutions for future customers
- Demonstrate best practice activity management that addresses the principles of the business case approach supported by good practice asset management.

Future Link Transport and Parking Strategy 2005: Transport policy and investment will contribute to the community outcome, effective and efficient infrastructure that meets the needs of growth by:

- Ensuring all modes of transport have a means to enter transport networks efficiently and effectively, and once there, move between 'destinations' effectively and efficiently.
- Ensuring that roads are able to be the primary corridor for all other infrastructure needs. For example water, sewerage, telecommunications and energy.
- Having a balanced approach to meeting traffic demand. This means having some roading improvement and also providing alternatives such as public transport. A public transport system, even at a basic level, will require significant infrastructure to ensure efficient operation.

Queenstown Lakes District Council Infrastructure Strategy 2015-2045: Key strategies are linked to the 10 Ten year Plan 2015-2025.

Freight

Draft Government Policy Statement on Land Transport 2018/19-2027/28: The strategic direction of GPS 2018 is demonstrated through its 2 key strategic priorities, and 2 supporting strategic priorities.
Key Strategic Priorities:

- Safety
- Access

Supporting Strategic Priorities:

- Value for Money
- Environment

Themes have been included in the GPS to assist understanding of how to effectively deliver on the priorities. The themes influence how the results should be delivered to ensure the best transport solutions for New Zealand are achieved. The themes for GPS 2018 are:

- a mode-neutral approach to transport planning and investment decisions
- incorporating technology and innovation into the design and delivery of land transport investment
- integrating land use and transport planning and delivery

The National Infrastructure Plan

- A network of priority roads that will improve journey time and reliability, and ease severe congestion, boosting the growth potential of key economic areas and improving transport efficiency, road safety and access to markets.
- A rail system that enables the efficient movement of freight and complements other modes of passenger transport and freight movement.
- Sea and air ports that are linked to the overall transport network to support efficient nationwide movement of passengers, domestic goods and exports and imports and are able to respond to technological changes and changing international safety and security standards.

Vision: By 2030 New Zealand's infrastructure is resilient and coordinated and contributes to economic growth and increased quality of life.

NZTA Statement of Intent 2017-21:
This Statement of Intent outlines the Transport Agency's strategy of working to deliver three big changes that form the foundation of their new direction:

- One connected transport system: Transform the performance of the land transport system by integrating digital technology with physical infrastructure to create a safe, connected system that works for everyone.
- People-centred services: Simplify our customers' lives and our partners' work with innovative services and experiences that make it easy for them to do what they need to.
- Partnerships for prosperity: Unlock social and economic opportunities for customers, businesses and communities through targeted partnerships.

These changes have been targeted into eight focus areas that have clear measurable outcomes for customers and New Zealanders:

- Shape the land transport system
- Target rapid growth
- Connect and develop regions
- Keep people safe
- Improve customer experiences
- Deliver connected journeys
- Achieve Organisational excellence
- Transform the Transport Agency

Otago Southland Regional Land Transport Plans 2015-2021: The long-term goal set by the Committee for land transport in Otago Southland is to provide accessible transport connections, giving users an appropriate choice of modes, and to gain improved performance from the land transport system, by focusing on: road safety, economic growth and productivity, and value for money.
Freight – road, rail, delivering on priorities:

- Transport services and infrastructure support economic productivity and growth.
- Users are able to access the network, in a manner that is convenient and affordable to funders and users.
- The network is reliable and resilient.

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Otago Regional Council Annual Plan 2017 – 2018: Our transport activities contribute to the following community outcomes. *The environmental, economic, social, cultural needs of the Otago people are met.*

Provide a network that facilitates freight movement for local distribution and export mobilising the region to a high level of efficiency and supporting the economy.

Primary Freight Routes: Provide for inter-regional movements avoiding key land use and areas of high amenity or community value conflicts along routes with restricted access (e.g. state highways).

Secondary Freight Routes: Routes that provide connections linking primary routes to commercial and industrial centres.

Otago Regional Council Strategic Plan 2014: Transport is one of nine areas of focus identified in this plan.
Description:

- While there is a well-developed roading network, travel throughout Otago is vulnerable to disruption because of weather events, natural hazards and crashes.
- Conflict between transport modes and actions of travellers reduces travel safety.

The Opportunity:

- State highways and local roads, cycle-paths and walkways operate as an uninterrupted single network to enable people to travel for work, education, social and recreation reasons; and freight movement for local distribution and export, thereby mobilising the region to a high level of efficiency and supporting the economy.
- Investment in maintenance of natural and physical resources and amenity values of Otago by the implementation of measures that limit unacceptable effects from the transport network providing value for money.
- Continuous access throughout Otago as a result of well-considered expenditure on the transport network.
- Safe individual and community travel using a variety of connected travel modes, within and between centres throughout Otago, and with the rest of New Zealand.

Approach:

- Provide clear definition of valued areas so that they are protected from the effects of use, maintenance and development of the transport network.
- Set standards to address the causes of factors that may have adverse effects on natural and physical resources and amenity values.
- Develop proposals to address safe and efficient transport of people and freight through coordinated transport expenditure achieving a single integrated network.
- Provision for an appropriate variety of transport modes that meet the needs of industry, lifestyle and tourism.

Outcome sought:

- People and communities can safely and efficiently access natural and physical resources for social and economic activities, including land use and development, by appropriate transport modes.

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# General traffic **Draft Government Policy Statement on Land Transport 2018/19-2027/28:** The strategic direction of GPS 2018 is demonstrated through its 2 key strategic priorities, and 2 supporting strategic priorities. Key Strategic Priorities: • Safety • Access Supporting Strategic Priorities: • Value for Money • Environment Themes have been included in the GPS to assist understanding of how to effectively deliver on the priorities. The themes influence how the results should be delivered to ensure the best transport solutions for New Zealand are achieved. The themes for GPS 2018 are: • a mode-neutral approach to transport planning and investment decisions • incorporating technology and innovation into the design and delivery of land transport investment • integrating land use and transport planning and delivery	**Promote a General Traffic network that focuses on customer journeys that promotes inter-modal connectivity from origin to destination. Encourage routes that are safer and more predictable for general traffic, while address safety and conflict issues in areas with high amenity. In these instances an appropriate response may be speed reductions to reflect the community's aspirations for their neighbourhood.** *Preferred Traffic Routes:* Provides for longer distance traffic avoiding areas of high land use conflict.

The National Infrastructure Plan: A flexible and resilient transport system that offers greater accessibility and can respond to changing patterns in demand by maintaining and developing the capacity of the network. Improved operational management practice and the use of demand management tools especially in urban areas experiencing significant growth.

A network of priority roads that will improve journey time and reliability, and ease severe congestion, boosting the growth potential of key economic areas and improving transport efficiency, road safety and access to markets.

Transport vision: A transport sector that supports economic growth by achieving efficient and safe movement of freight and people.

NZTA Statement of Intent 2017-21:
This Statement of Intent outlines the Transport Agency's strategy of working to deliver three big changes that form the foundation of their new direction:

- One connected transport system: Transform the performance of the land transport system by integrating digital technology with physical infrastructure to create a safe, connected system that works for everyone.
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Private motor vehicles and shared transport, delivering on priorities:

- Users are able to access the network, in a manner that is convenient and affordable to users and funders
- The network is reliable and resilient, helping community resilience.
- The social cost of crashes (and any accidents on the roadway) is substantially reduced.

Regional Policy Statement Review Consultation Draft 2014: Good quality infrastructure meets community needs. Roads networks support our communities, economy, and health and safety. Integrating infrastructure with urban growth and development is essential to ensure it occurs in a sustainable and efficient manner.

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Description:

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The Opportunity:

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- Continuous access throughout Otago as a result of well-considered expenditure on the transport network.
- Safe individual and community travel using a variety of connected travel modes, within and between centres throughout Otago, and with the rest of New Zealand.

Approach:

- Provide clear definition of valued areas so that they are protected from the effects of use, maintenance and development of the transport network.

Traffic Routes: Provides for general traffic connectivity with residential and commercial centres to preferred traffic routes.

Local Primary Access Routes: Provides access routes to/from local destinations within the local area. May also provide circulation routes/Gateway routes.

Local Secondary Access Routes: Collects and distributes between primary local access routes.

- Set standards to address the causes of factors that may have adverse effects on natural and physical resources and amenity values.
- Develop proposals to address safe and efficient transport of people and freight through coordinated transport expenditure achieving a single integrated network.
- Provision for an appropriate variety of transport modes that meet the needs of industry, lifestyle and tourism.

Outcome sought:

- People and communities can safely and efficiently access natural and physical resources for social and economic activities, including land use and development, by appropriate transport modes.

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- how to manage parking at the waterfront

Queenstown Integrated Transport Programme Business Case 2017: The Queenstown area is experiencing unprecedented levels of growth, which has significant implications for the transport network. The exponential growth has led to congestion and traditional transport strategies and response to growth are no longer working in the Queenstown environment. The recommended programme includes the following key activities:

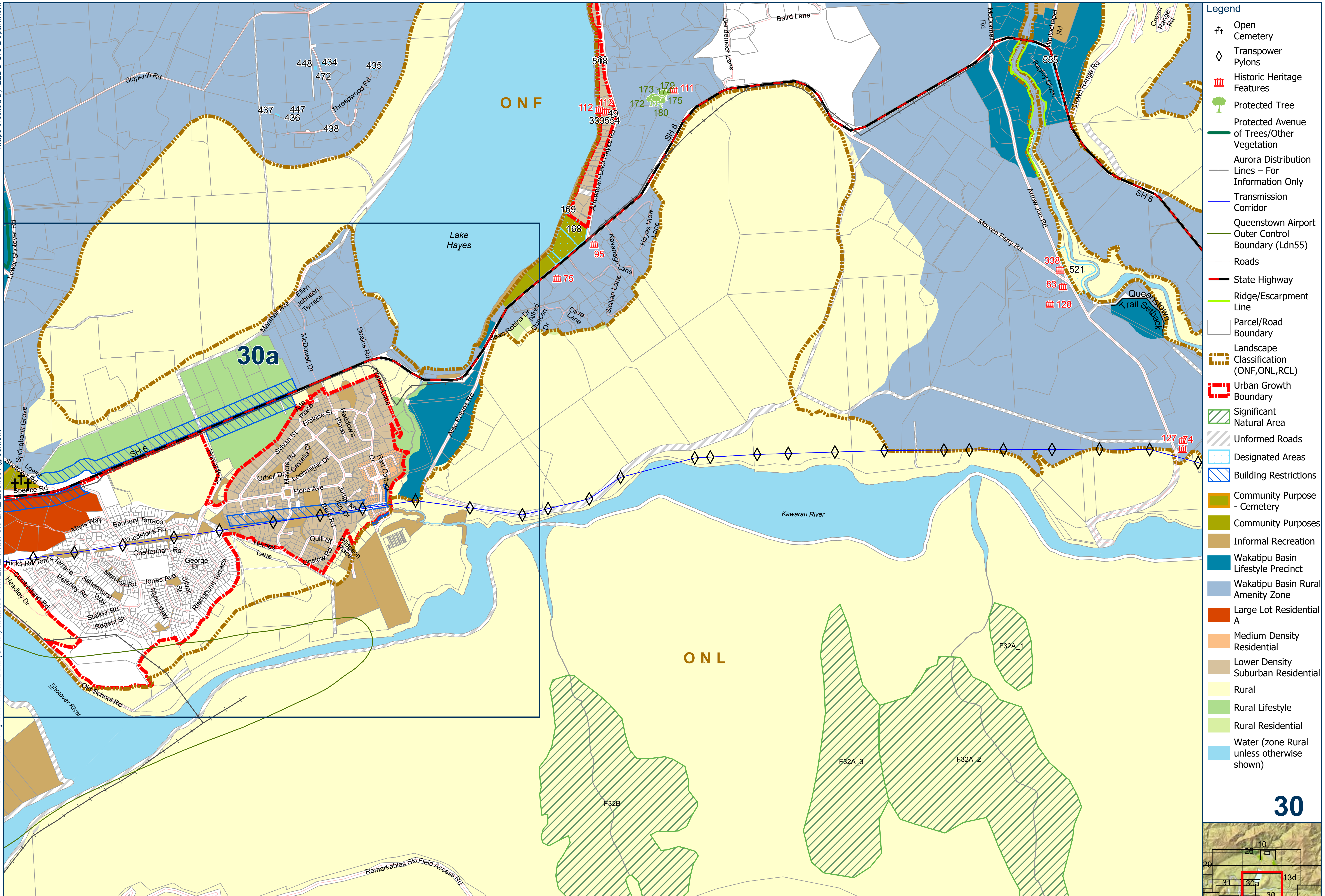
- Making public transport an attractive and viable alternative to the private car through improvements to service provision, and the introduction of bus priority, park and ride and a Mass Rapid Transit corridor between Queenstown and Frankton.
- Altering cost, provision and management of parking across the area to support the goals of reducing private vehicle usage, and encouraging greater use of public transport
- Completing key infrastructure projects for vehicular and active modes, including a new town centre arterial to facilitate economic growth, better provision for public transport and access for pedestrians, and removing unnecessary vehicle movements in the most congested areas of the town centre.

Queenstown Lakes District Council Strategy for the Procurement of Transport Infrastructure Services: Community outcome aligned to the LTP. Effective and efficient infrastructure that meets the needs of growth.

Queenstown Lakes District Council Economic Development Strategy 2015: A follow-up document to the Economic Futures Taskforce report which builds on on the methods and analysis of this work and supplements it with detailed and evidence-based assessment. The aim of this strategy is to address key economic development priorities which have been identified.
The strategy notes that the road network is reliant on a few main road routes which present connectivity risks for the district. These routes (such as SH6) experience peak hour congestion and at present traffic is predicted to slow to 20 km/h in 20 years.
There are plans in place to address this, however it is a significant cost to the Council and NZTA.

Queenstown Lakes District Council Land Transport Activity Management Plan 2018-19 to 2032-33: QLDC's vision for land transport is to provide a safe, resilient, efficient transport system that supports modal choice and addresses current and future demand for economic and social opportunities. To meet this vision and new business model QLDC through this Business Case Approach Activity Management Plan (BCA AMP) must: • Monitor, address and embed growth in all transport activities • Focus on customer journeys, from origin to destination, that span across network boundaries and modes. To this end, it will be the catalyst to more collaborative working arrangements across the Otago/Southland region, and with other transport providers such as NZ Transport Agency (NZTA) State Highways, Queenstown Airport Corporation (QAC) and Otago Regional Council (ORC) • Enable customers to better assess service delivery options and their costs against the nationally consistent customer outcomes of the ONRC in an appropriate way for the QLDC network • Demonstrate where QLDC's network performance and cost of delivery sits on a comparative basis to similar networks i.e. self-benchmarking analysis • Use the Business Case Approach (BCA) and the ONRC framework to provide Councillors and co-investors a more consistent and coherent platform for decision making • Further develop robust evidence-based cases for investment, ensuring understanding of the asset lifecycle, the costs and options • Enhance its capability to deliver greater value for money from its existing infrastructure assets, and give greater consideration to customer focussed transport solutions for future customers • Demonstrate best practice activity management that addresses the principles of the business case approach supported by good practice asset management. **Future Link Transport and Parking Strategy 2005:** Transport policy and investment will contribute to the community outcome, effective and efficient infrastructure that meets the needs of growth by: • Ensuring all modes of transport have a means to enter transport networks efficiently and effectively, and once there, move between 'destinations' effectively and efficiently. • Ensuring that roads are able to be the primary corridor for all other infrastructure needs. For example water, sewerage, telecommunications and energy. • Having a balanced approach to meeting traffic demand. This means having some roading improvement and also providing alternatives such as public transport. A public transport system, even at a basic level, will require significant infrastructure to ensure efficient operation. **Queenstown Lakes District Council Urban Design Strategy:** Connections – transport and land use. The urban form of a town or neighbourhood has a direct impact on its residents' lifestyle options. This makes it worthwhile to consider the community's aspirations for their neighbourhood, before committing to a street pattern and roading layout. **Queenstown Lakes District Council Infrastructure Strategy 2015-2045:** Key strategies are linked to the 10 Ten-Year Plan 2015-2025.	

Appendix B - Proposed District Plan Maps


Legend
Open Cemetery
Transpower Pylons
Historic Heritage Features
Protected Tree
Protected Avenue of Trees/Other Vegetation
Aurora Distribution Lines – For Information Only
Transmission Corridor
Queenstown Airport Outer Control Boundary (Ldn55)
Roads
State Highway
Ridge/Escarpment Line
Parcel/Road Boundary
Landscape Classification (ONF,ONL,RCL)
Urban Growth Boundary
Significant Natural Area
Unformed Roads
Designated Areas
Building Restrictions
Community Purpose - Cemetery
Community Purposes
Informal Recreation
Wakatipu Basin Lifestyle Precinct
Wakatipu Basin Rural Amenity Zone
Large Lot Residential A
Medium Density Residential
Lower Density Suburban Residential
Rural
Rural Lifestyle
Rural Residential
Water (zone Rural unless otherwise shown)
30
ONF
ONL
Lake Hayes
Kawarau River
Shotover River
30a
SH 6
F32A_1
F32A_2
F32A_3
F32B
Remarkables Ski Field Access Rd
Queenstown Trail Setback
Morven Ferry Rd
Arrow Junction Rd
Arrowtown - Lake Hayes Rd
Slopehill Rd
Threepwood Rd
Old School Rd
Lower Shotover Rd
Spence Rd
Springbank Grove

Maps created by QLDC GIS Department

Parcel boundaries derived from New Zealand Core Records System Vector Data (Corax) obtained from LINZ under the LINZ Licence Agreement

QUEENSTOWN LAKES DISTRICT COUNCIL

PDP Decisions Version Map 30 - Lake Hayes

0 0.5 1 Kilometres

N

Date Published: 28/03/2019

PDP Decisions Version Map 31 - Lower Shotover

QUEENSTOWN LAKES DISTRICT COUNCIL

0 0.5 1 Km

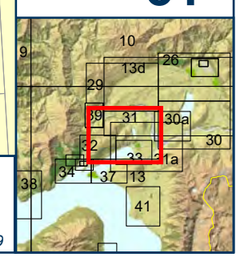
N

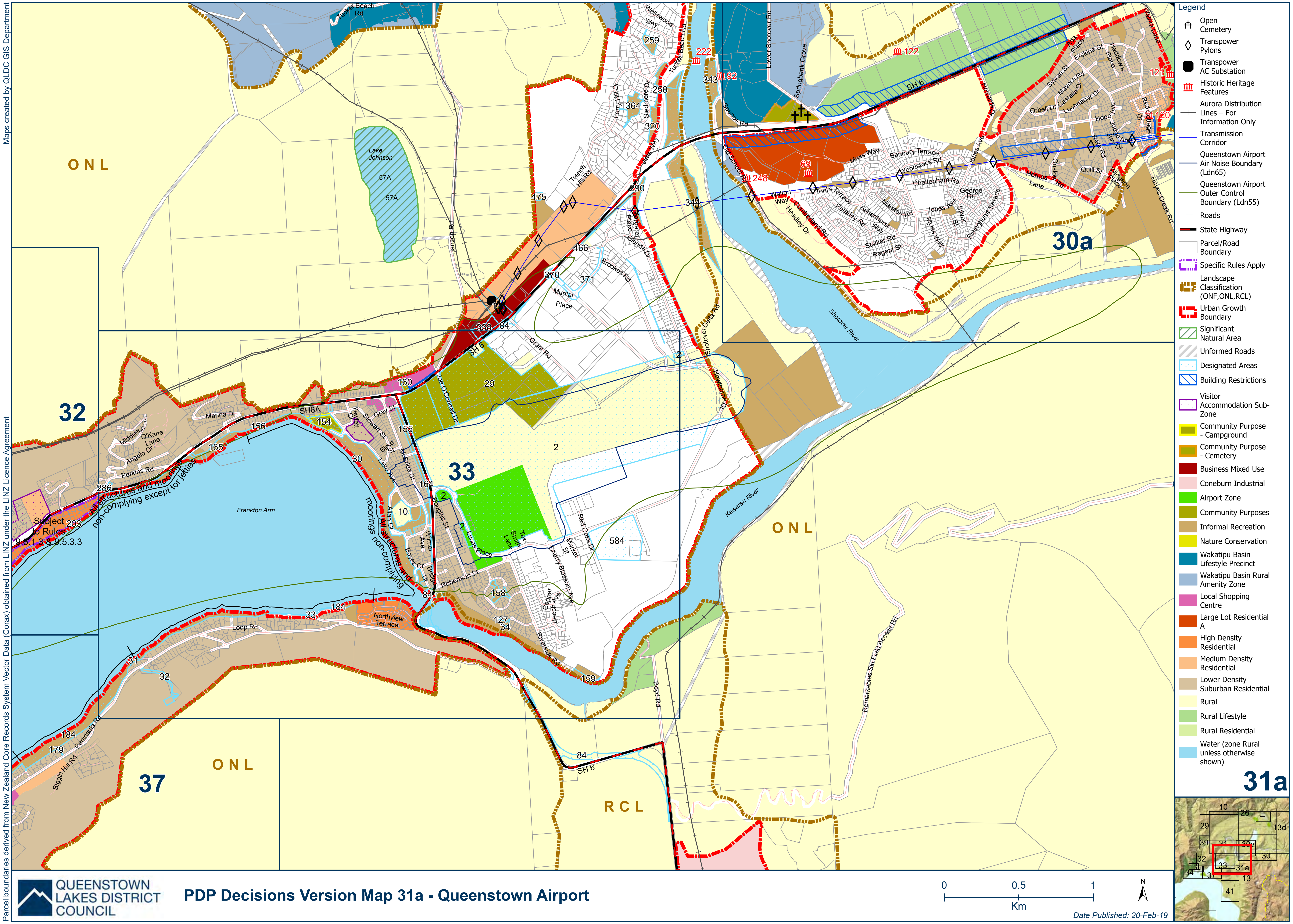
Date Published: 20-Feb-19

Legend

- Transpower Pylons
- Transpower AC Substation
- Historic Heritage Features
- Protected Tree
- Protected Avenue of Trees/Other Vegetation
- Aurora Distribution Lines – For Information Only
- Transmission Corridor
- Queenstown Airport Air Noise Boundary (Ldn65)
- Queenstown Airport Outer Control Boundary (Ldn55)
- Roads
- State Highway
- Ridge/Escarpment Line
- Parcel/Road Boundary
- Specific Rules Apply
- Landscape Classification (ONF,ONL,RCL)
- Urban Growth Boundary
- Significant Natural Area
- Unformed Roads
- Designated Areas
- Building Restrictions
- Visitor Accommodation Sub-Zone
- Community Purpose - Campground
- Community Purpose - Cemetery
- Business Mixed Use
- Airport Zone
- Community Purposes
- Informal Recreation
- Nature Conservation
- Wakatipu Basin Lifestyle Precinct
- Wakatipu Basin Rural Amenity Zone
- Local Shopping Centre
- Large Lot Residential A
- High Density Residential
- Medium Density Residential
- Lower Density Suburban Residential
- Rural
- Rural Lifestyle
- Rural Residential
- Water (zone Rural unless otherwise shown)

31




ONL
32
33
37
30a
31a
RCL
Frankton Arm
Lake Johnson
Shotover River
Kawarau River
All structures and moorings non-complying except for jetties
All structures and moorings non-complying
Subject to Rules 9.5.1.3 & 9.5.3.3
Legend
Open Cemetery
Transpower Pylons
Transpower AC Substation
Historic Heritage Features
Aurora Distribution Lines – For Information Only
Transmission Corridor
Queenstown Airport Air Noise Boundary (Ldn65)
Queenstown Airport Outer Control Boundary (Ldn55)
Roads
State Highway
Parcel/Road Boundary
Specific Rules Apply
Landscape Classification (ONF,ONL,RCL)
Urban Growth Boundary
Significant Natural Area
Unformed Roads
Designated Areas
Building Restrictions
Visitor Accommodation Sub-Zone
Community Purpose - Campground
Community Purpose - Cemetery
Business Mixed Use
Coneburn Industrial
Airport Zone
Community Purposes
Informal Recreation
Nature Conservation
Wakatipu Basin Lifestyle Precinct
Wakatipu Basin Rural Amenity Zone
Local Shopping Centre
Large Lot Residential A
High Density Residential
Medium Density Residential
Lower Density Suburban Residential
Rural
Rural Lifestyle
Rural Residential
Water (zone Rural unless otherwise shown)
0 0.5 1
Km
N

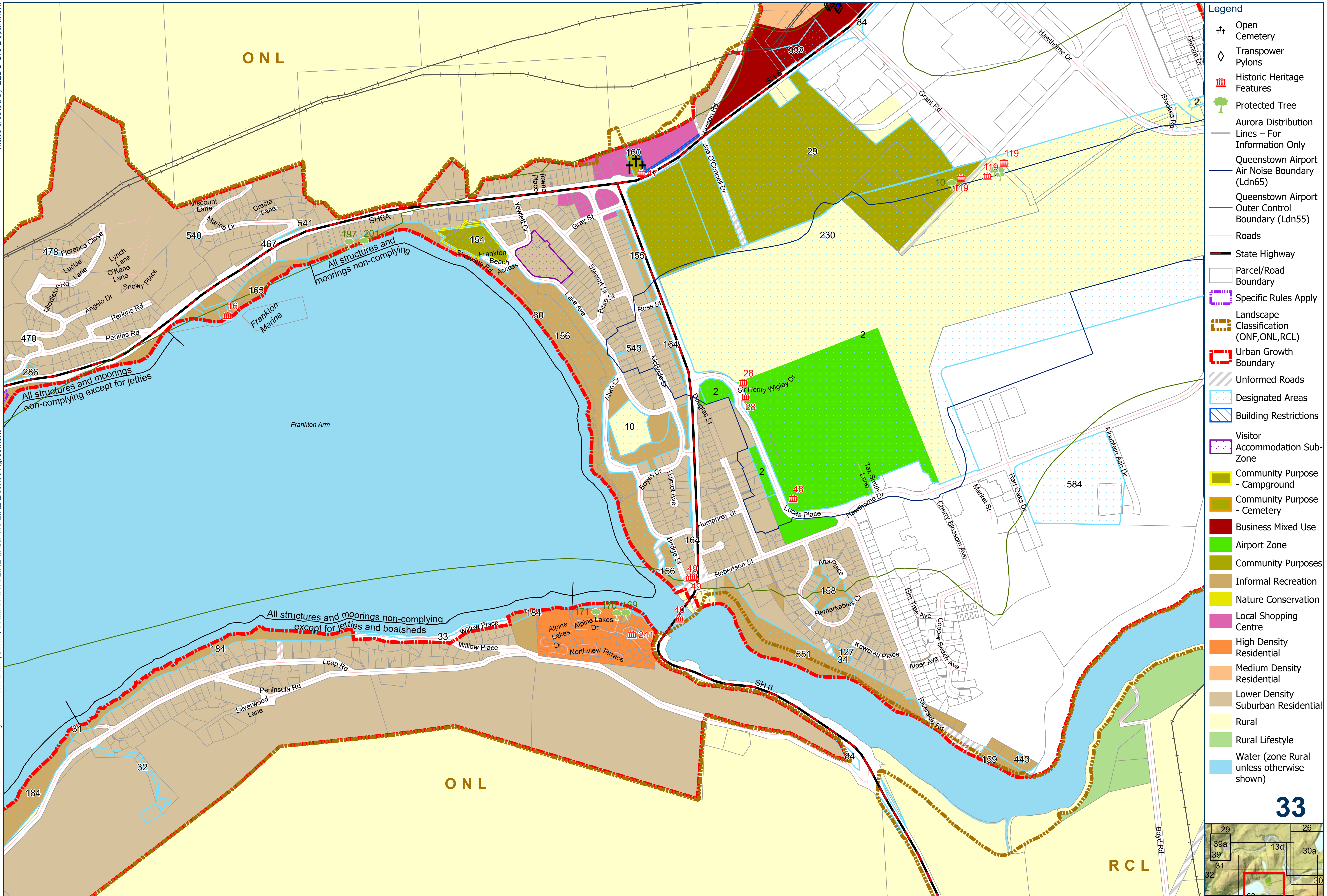
Maps created by QLDC GIS Department

Parcel boundaries derived from New Zealand Core Records System Vector Data (Corax) obtained from LINZ under the LINZ Licence Agreement

QUEENSTOWN LAKES DISTRICT COUNCIL

PDP Decisions Version Map 31a - Queenstown Airport

Date Published: 20-Feb-19



QUEENSTOWN LAKES DISTRICT COUNCIL

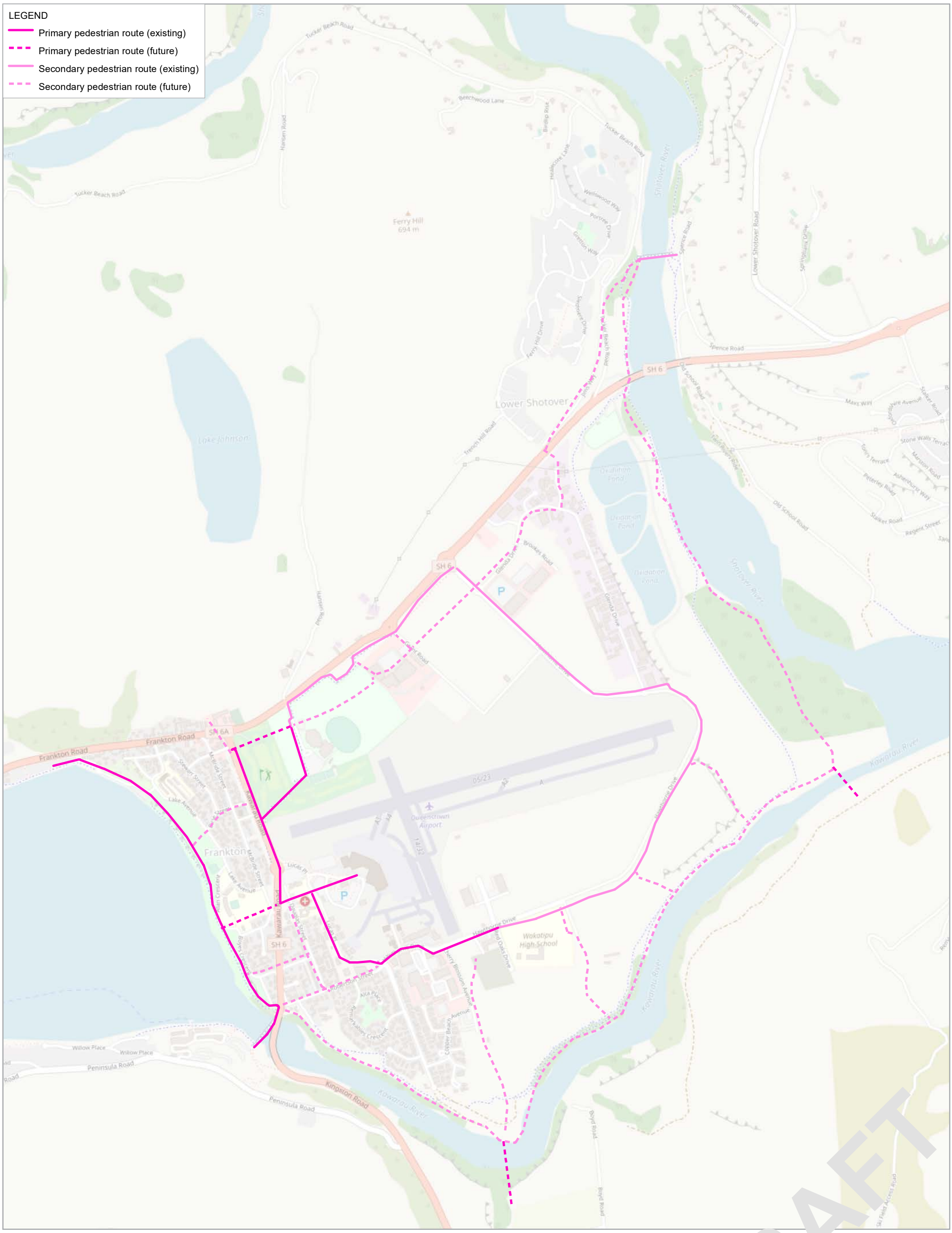
PDP Decisions Version Map 33 - Frankton

0 0.5 1
Km

N

Date Published: 20-Feb-19

Appendix C - Strategic Network Maps



Paper Size ISO A3

0 200 400

Metres

Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

N

Queenstown Lakes District Council
Frankton Masterplan and Integrated Transport PBC

Project No. 12503469
Revision No. -
Date 20 Dec 2019

Pedestrian network

FIGURE 2

N:\NZ\Christchurch\General\Advisory\GIS\Mxd\FranktonNOF\12503469_FranktonNOF_TransportNetwork.mxd

Data source: Base map - Open Street Map 2019 ((c) OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA)). Created by: jrprice

LEGEND

- Primary freight route (existing)
- Secondary freight route (existing)
- Secondary freight route (future)

Paper Size ISO A3

0 200 400

Metres

N

Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

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Frankton Masterplan and Integrated Transport PBC

Project No. 12503469
Revision No. -
Date 20 Dec 2019

Freight network

FIGURE 6

N:\NZ\Christchurch\General\Advisory\GIS\Mxd\FranktonNOF\12503469_FranktonNOF_TransportNetwork.mxd

Data source: Base map - Open Street Map 2019 ((c) OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA)). Created by: jrprice

LEGEND

- Preferred general traffic route (existing)
- Preferred general traffic route (future)
- General traffic route (existing)
- General traffic route (future)
- Local primary general traffic access route (existing)
- Local secondary general traffic access route (existing)

Paper Size ISO A3

0 200 400

Metres

Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

Queenstown Lakes District Council
Frankton Masterplan and Integrated Transport PBC

Project No. 12503469
Revision No. -
Date 20 Dec 2019

General traffic network

FIGURE 5

N:\NZ\Christchurch\General\Advisory\GIS\Mxd\FranktonNOF\12503469_FranktonNOF_TransportNetwork.mxd

Data source: Base map - Open Street Map 2019 ((c) OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA)). Created by: jrprice

LEGEND

- Primary public transport route (existing)
- Primary public transport route (future)
- Secondary public transport route (existing)
- Secondary public transport route (future)

Paper Size ISO A3

0 200 400

Metres

N

Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

Queenstown Lakes District Council
Frankton Masterplan and Integrated Transport PBC

Project No. 12503469
Revision No. -
Date 20 Dec 2019

Public transport network

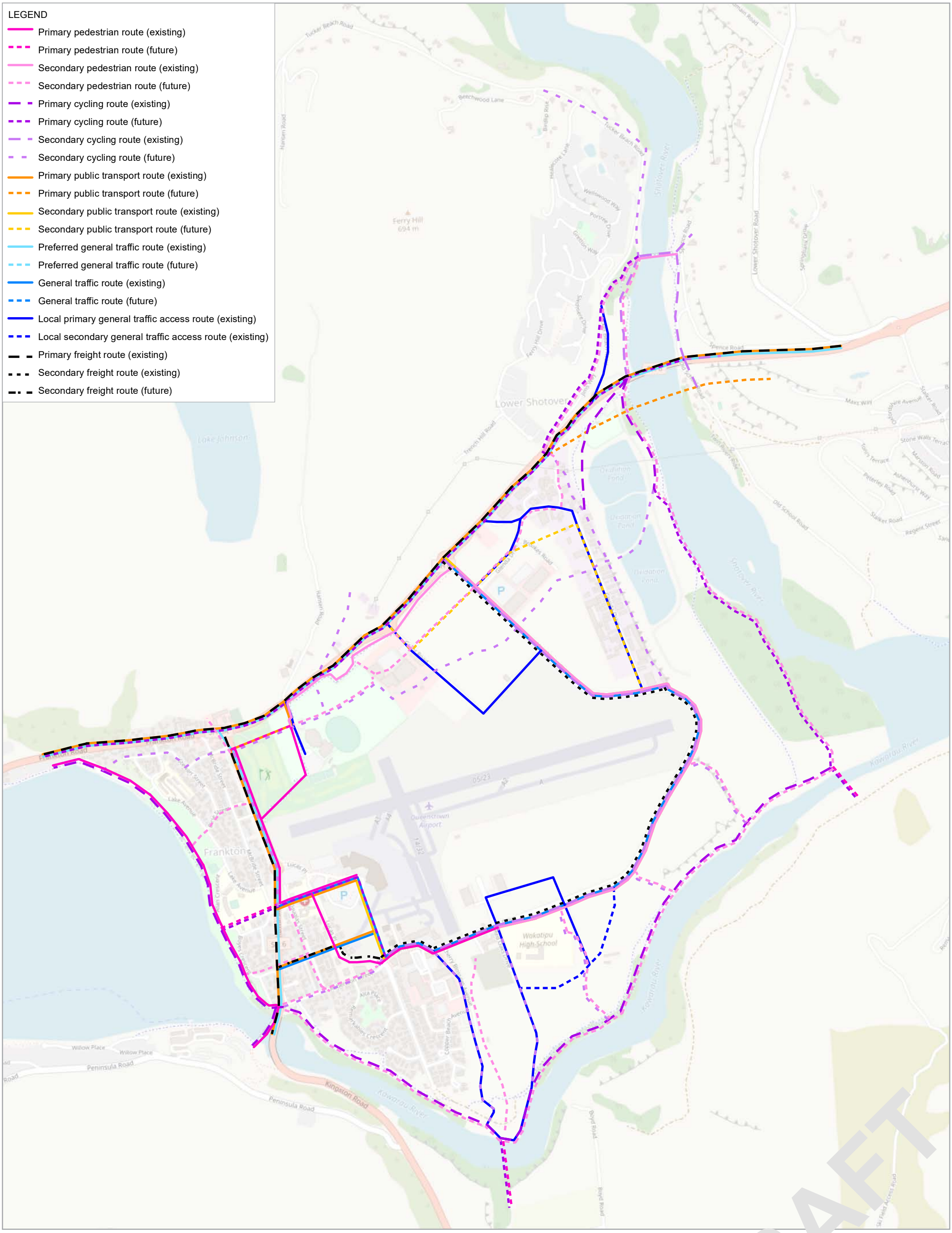
FIGURE 4

N:\NZ\Christchurch\General\Advisory\GIS\Mxd\FranktonNOF\12503469_FranktonNOF_TransportNetwork.mxd

Data source: Base map - Open Street Map 2019 ((c) OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA)). Created by: jrprice

LEGEND

- Primary pedestrian route (existing)
- Primary pedestrian route (future)
- Secondary pedestrian route (existing)
- Secondary pedestrian route (future)
- Primary cycling route (existing)
- Primary cycling route (future)
- Secondary cycling route (existing)
- Secondary cycling route (future)
- Primary public transport route (existing)
- Primary public transport route (future)
- Secondary public transport route (existing)
- Secondary public transport route (future)
- Preferred general traffic route (existing)
- Preferred general traffic route (future)
- General traffic route (existing)
- General traffic route (future)
- Local primary general traffic access route (existing)
- Local secondary general traffic access route (existing)
- Primary freight route (existing)
- Secondary freight route (existing)
- Secondary freight route (future)



Paper Size ISO A3

0 200 400

Metres

Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

N

Queenstown Lakes District Council
Frankton Masterplan and Integrated Transport PBC

Transport network

Project No. 12503469
Revision No. -
Date 20 Dec 2019

FIGURE 1

N:\NZ\Christchurch\General\Advisory\GIS\Mxd\FranktonNOF\12503469_FranktonNOF_TransportNetwork.mxd

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GHD

Level 1, Grant Thornton House
215 Lambton Quay
T: 64 4 472 0799 F: 64 4 472 0833 E: wgtnmail@ghd.com

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		Name	Signature	Name	Signature	Date
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Level 3 138 Victoria Street Christchurch Central 8013 New Zealand PO Box 13468 Christchurch 8141 New Zealand

64 3 378 0900
advisory@ghd.com

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