SH1 Wellington Improvements RONS

Investment Case

29 July 2025 v2.1

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Note: This document presents a 'point in time' design and assessment to support a NZTA board decision to invest. Several aspects of the design, and corresponding outcomes have changed since the Investment Case was completed. Therefore it is important to remember when reading that what is shown does not necessarily reflect the current project state.

NZ TRANSPORT AGENCY WAKA KOTAHI

Roads of National Significance

Te Kāwanatanga o Aotearoa
New Zealand Government

INVESTMENT SUMMARY

Investing in SH1 through Wellington to support economic growth and productivity

SH1 is the nationally significant linkage to Wellington, the capital city of New Zealand that provide connectivity for communities, business and visitors to the region's major central city employment area, the international airport and regional hospital. The project objective "to provide more efficient and reliable access on State Highway 1 from north of the Terrace Tunnel to Wellington Airport and Wellington Hospital to support regional economic growth." will improve access to major national and regional destinations and a freer-flowing state highway reduces traffic on alternative local roads that enables opportunities for improved public transport and other purposes.

The SH1 Wellington Improvements Roads of National Significance (RoNS) Project will unblock the bottlenecks at the Terrace and Mt Victoria Tunnels and unlock growth through Te Aro and the Basin Reserve to support economic growth, boost productivity and increase connectivity between the central city, the eastern suburbs and the wider Wellington region.

The SH1 Wellington Improvements recommended option includes:

- **Terrace Tunnel |** A second southbound tunnel, providing two traffic lanes from the Wellington Urban Motorway into the city, with associated work on the Ghuznee Street bridge
- **Te Aro |** A third eastbound lanes on Vivian Street with improved traffic signal operations for reliable throughput while maintaining connectivity to key connector roads. Optimising Karo Drive with a third westbound lane crossing the Willis Street traffic signals.
- **Basin Reserve |** Separating SH1 east west traffic from local north south traffic and buses by taking Sussex Street on the western edge of the Basin Reserve over an extended Arras Tunnel that connects with the Mt Victoria Tunnel. This involves changes on Kent and Cambridge Terrace, and Paterson Street to divert traffic along the north edge of the Basin.
- **Mount Victoria Tunnel and Eastern Connections |** A second eastbound parallel tunnel plus widening of Ruahine Street and Wellington Road to provide two lanes of general traffic in each direction between the Basin Reserve and Cobham Drive. The new tunnel will include an improved walk/cycle facility (to replace the existing SUP that needs to be removed from and lanes widened in the existing tunnel).

NPV Benefit $1.6b to $2.9b	NPV Cost $2.5b	BCR 0.7 – 1.2 Untolled 0.6 – 1.0 Tolled
GPS alignment – Very High	Schedule – High	Efficiency – Low

Improved travel time on SH1 up to 10 minutes at peak times

Reduced travel time variability up to 40%

20% reduction in traffic on the Harbour Quays to enable increased bus use

200 additional walking and cycling journeys per day between the eastern suburbs and the central city

What's included in this SH1 Wellington Improvements Investment Case

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Date	Version	Authors	Contributors
Investment Case V2.1 29/07/2025	1: For Investment Case endorsement	System Design Lead: Mike Blyleven Transport Planners: Simon Prosee, Matthew Evis Project Manager: s 9(2)(a)	Key inputs from Workstream Leads, feedback through SME engagement and review through assurance process

Endorser	Role	Date	Signature
Robyn Elston	System Design National Manager		
Andrew Gard	Project Director		

This document is best printed at A3, landscape.

Transport system inter-relationship

Capacity constraints on SH1 impact on how people access Wellington

The state highway network:

- Provides commuters, visitors, goods and services with access to the central city, southern and eastern suburbs.
- Connects businesses and communities to the airport, hospital, centralised services and amenities.
- Provides access for local movements in the central and inner city.

Access from the North

Access for general traffic into Wellington city from the north is limited to three main corridors, being SH1, Thorndon Quay and Aotea Quay. The operation of these routes is highly interrelated. Limited southbound capacity on SH1 through the Terrace Tunnel means when users of the state highway travelling into the city are delayed, some choose to avoid it and travel via central city streets instead (such as Harbour Quays).

Additional traffic demands on the local road network restrict opportunities for public transport and people space enhancements within Wellington city centre. This can be managed by encouraging more people to use the state highway rather than the local road alternatives (such as Harbour Quays) when travelling to destinations in the inner city, eastern and southern suburbs.

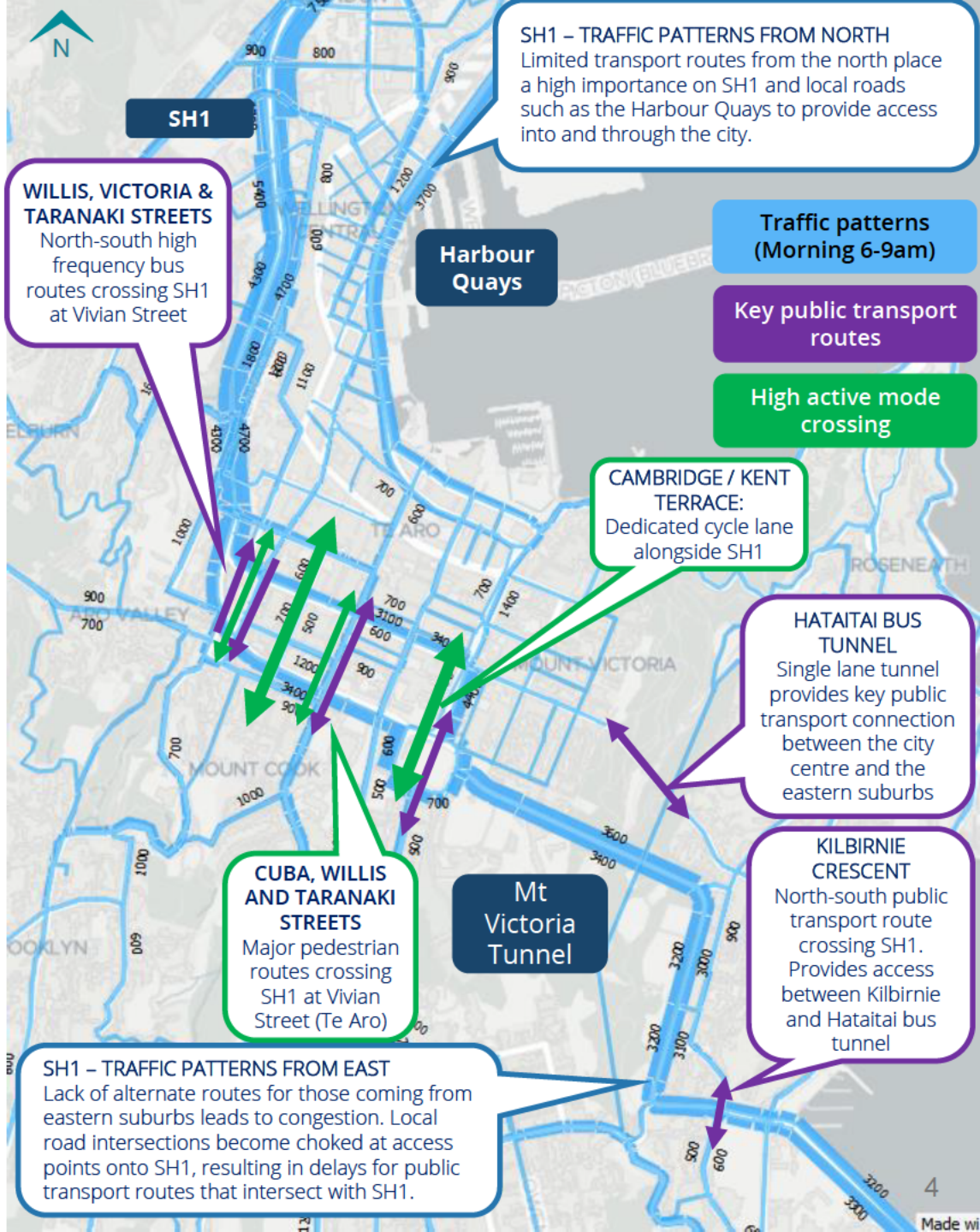
Access from the South and East

South of the Terrace Tunnel, SH1 splits into two roads through Te Aro: eastbound towards the Basin via Vivian Street and Kent Terrace, and westbound around the Basin Reserve and along Karo Drive heading north. SH1 through Te Aro and the Basin crosses several local road arterials that support high traffic volumes, key public transport links as well as pedestrian and cycling connections which leads to conflicts, delay and safety risks to road users. Therefore, a system approach is needed to state highway improvements, maintaining access and minimising impacts on other users of the transport system.

The state highway converges after the Basin Reserve as it goes through the Mt Victoria Tunnel and provides the primary access between the central city, the international airport and eastern suburbs. SH1 has capacity constraints where two lanes merge to one lane each way, which leads to large travel time delays and unreliable journeys. These delays encourage people to use alternative routes to travel to and from the city that are less appropriate or desirable for supporting large volumes of through traffic.

Alternative routes around the bays are scenic and longer and pass through the Oriental Bay precinct that is not well suited to high traffic volumes (being a 30 km/hr people focused space). The other alternative is over Constable Street via Newtown, which has a critical constraint at Adelaide/Riddiford Street intersection.

Removing state highway bottlenecks can reinforce the road hierarchy principles of having general traffic and freight on roads more suited to throughput, providing greater opportunities to free up local roads in the central city for public transport and people focused spaces.



Strategic context

Refer to Appendix A – Strategic case evidence

Economic and social context

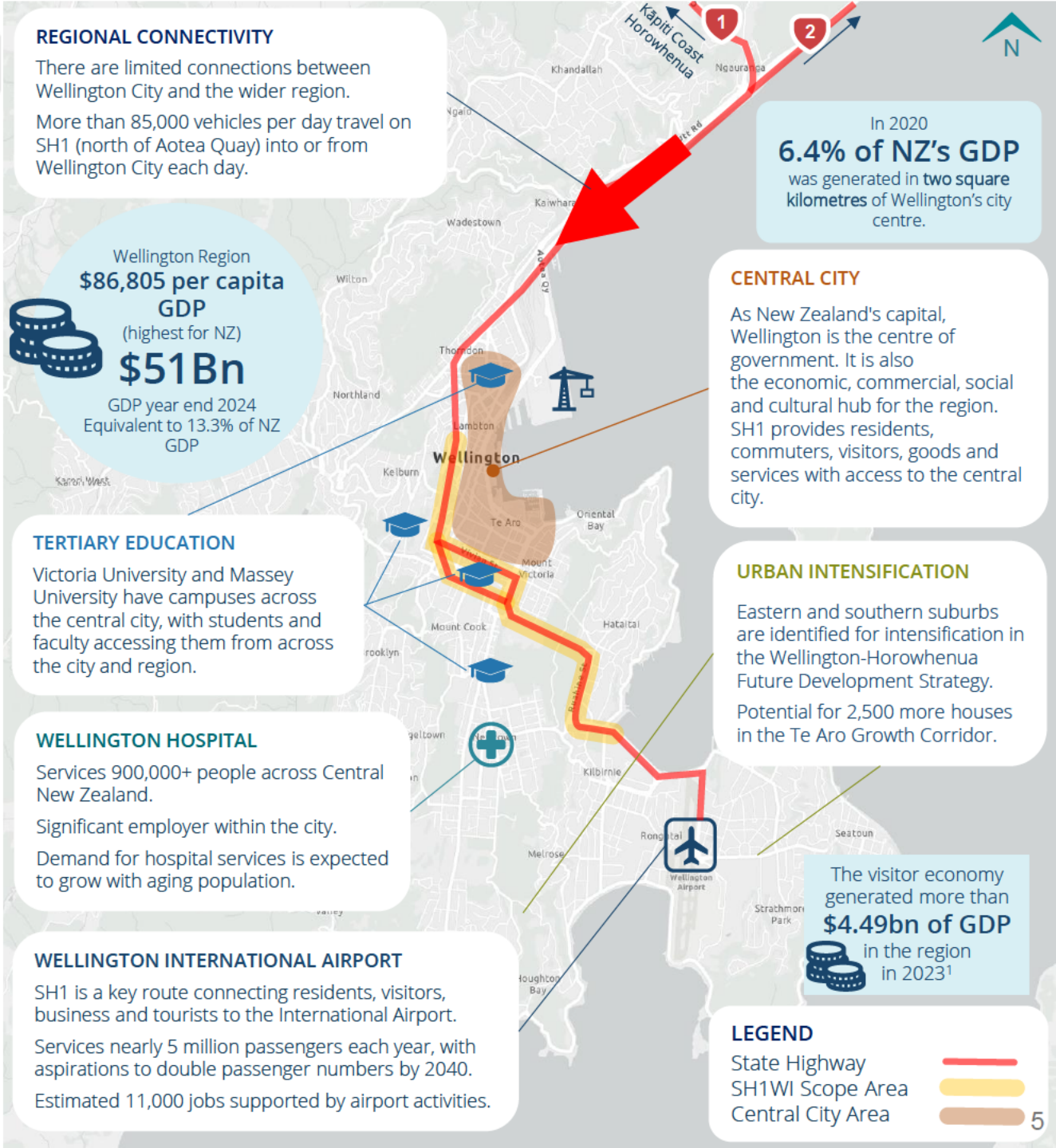
Wellington regional population 550,000	More than 40% of region's jobs are located in central Wellington	SH1 provides connections to key regional destinations
Commuting journeys from Hutt Valley, Kapiti Coast and Porirua	Centre for government administration and knowledge-based roles	13.4% of New Zealand GDP contributed by Wellington region (2024)

National importance of SH1

- Significant improvements have been made to the Wellington Northern Corridor over the last 10 years, improving access and strengthening national connectivity to and through the Greater Wellington region; however, slow and unreliable journeys through Wellington City continue to limit the economic benefits generated by improvements to the north.
- Geography of the harbour and topography limit transport routes into or from the central city and key regional destinations, which places a high level of criticality on the efficient and effective performance of SH1.
- As a national strategic transport corridor, SH1 is an integral part of Wellington city's transport system supporting more than 40,000 movements through Wellington City each day. It provides national, regional and local access to jobs, goods and services for residents, businesses and visitors.
- The route provides a strategic corridor to and from key destinations including the international airport, the regional hospital (connected via Taranaki Street and Adelaide Road), as well as central city employment centres and education facilities.

The economic success of New Zealand relies on Wellington providing a solid foundation. Future economic growth, and productivity will be compromised if access to key destinations such as the airport, hospital and the central city declines.

The Roads of National Significance is a programme of major transport investment that will address key state highway transport network constraints at the Ngāuranga Interchange (via Petone to Grenada Investment Case) and through Central Wellington (via this Investment Case).



Poor travel times on SH1

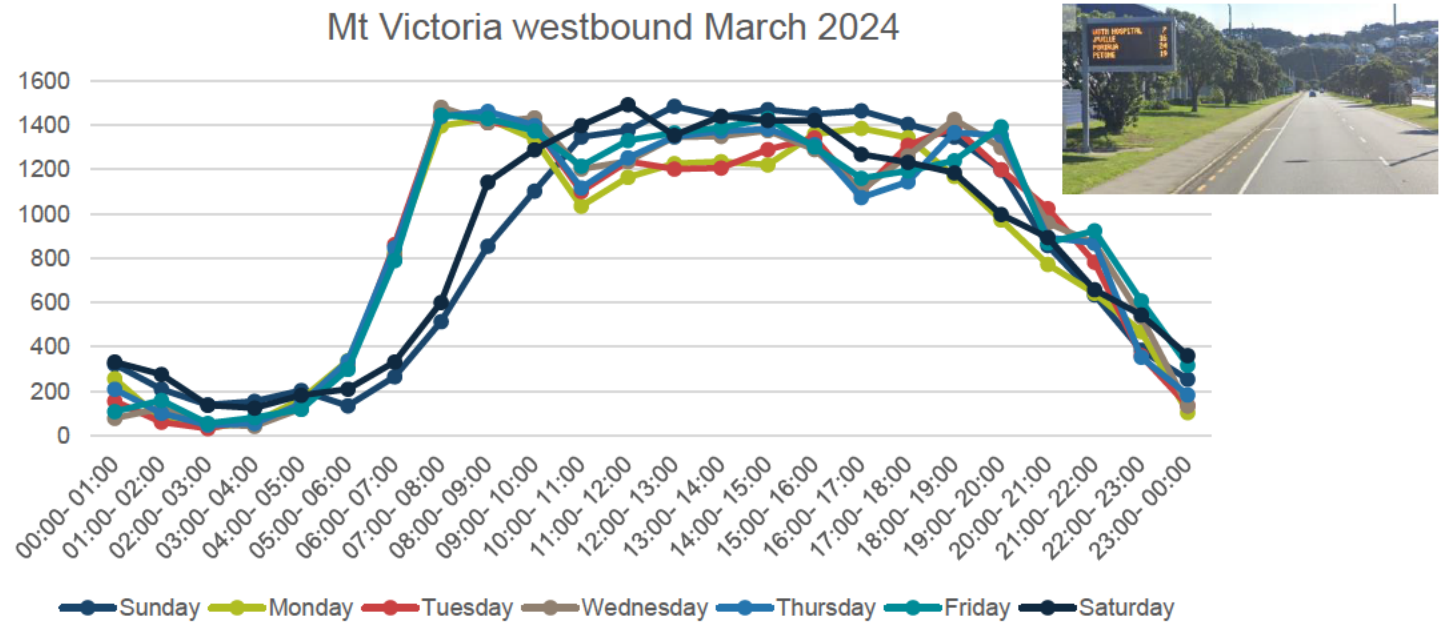
Capacity constraints cause delays and queues

Bottlenecks on the state highway where traffic must merge from two lanes to one lane can cause large delays and queues at peak times. Large delays and variability on the southbound approach to the Terrace Tunnel leads to people choosing to use the Harbour Quays and other local roads as alternatives, which then negatively impacts public transport levels of service and other amenity experiences.

The two-to-one bottlenecks and traffic signal constraints along Vivian Street typically have a capacity of around 1,400 vehicles per hour, and when travel demands approach this then no more traffic can get through. This is demonstrated within the Mt Victoria traffic flow profile (see below). This leads to traffic peaks being spread across multiple hours of the weekday and weekends, and associated traffic diversions via local roads to avoid the delays.

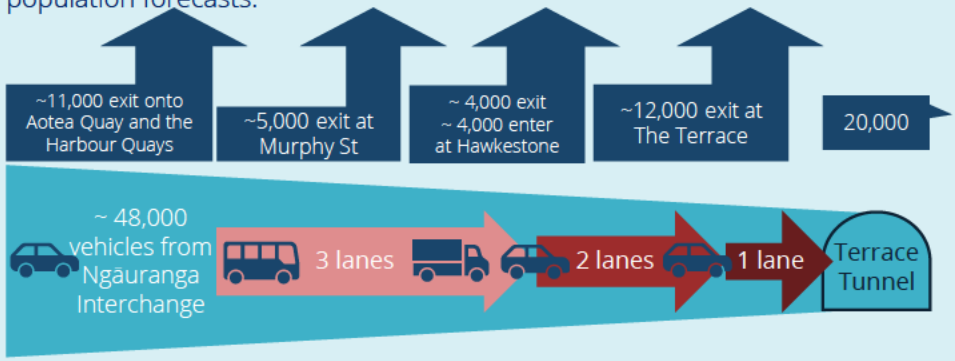
Google traffic, Tom Tom and NZTA travel time monitoring data all show high rates of delay and variability for journeys on the state highway. Travel time data captured from state highway Variable Message Signs (VMS) reveals significant variability between free-flowing times of day, the peak periods and times when journeys are significantly slower.

A more efficient and reliable state highway will improve people's confidence in using the state highway network, enabling people to make time critical connections to national and regionally significant destinations (such as the international airport, hospital and central city), support economic growth and improve access to housing growth areas in the eastern and southern suburbs.



Traffic into the city use various offramps

SH1 into Wellington city currently carries around 45,000 vehicles per day (vpd) and travel demand will continue to rise in line with Wellington's population forecasts.



This leaves approximately 20,000 vpd entering the single lane Terrace Tunnel. The 2 to 1 lane merge constrains capacity to less than 1,500 vehicles per hour. Delays and queues form when travel demands approach this capacity (from 6am to 7pm).

Travel Time Delay between 7 and 13 minutes at peak

Variability of additional 13 to 20 minutes observed

SH1 Southbound (from VMS North)	Freeflow travel time	Average travel time	Average Peak	Worst travel time
To CBD (6 km)	4 minutes	6 minutes	13 minutes	25 minutes
To Hospital	6 minutes	10 minutes	19 minutes	32 minutes
To Airport (11 km)	11 minutes	15 minutes	26 minutes	38 minutes
Airport via Quays	13 minutes	17 minutes	27 minutes	29 minutes
SH1 Northbound (from VMS on Cobham Drive)				
To CBD (SH - 4 km)	6 minutes	9 minutes	22 minutes	28 minutes
CBD via Bays	11 minutes	15 minutes	30 minutes	49 minutes
To Hospital	5 minutes	7 minutes	20 minutes	26 minutes
To Johnsonville	13 minutes	17 minutes	32 minutes	45 minutes

Travel time variability will worsen as travel demands increase

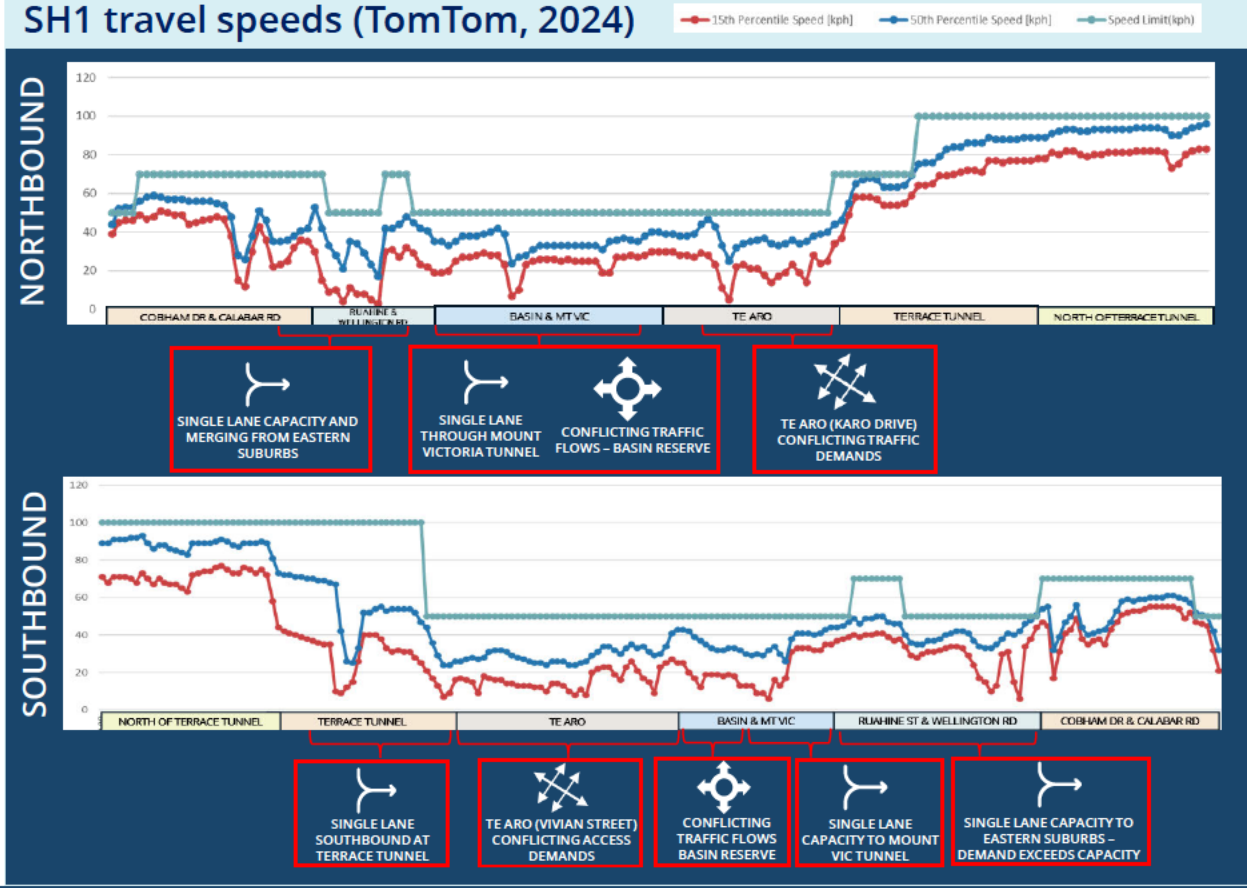
Transport modelling analysis forecasts the average travel times to increase by around 10% over the next few years. In addition to the obvious 2 to 1 lane bottlenecks, the urban form of the state highway corridor through the inner city has multiple signalised intersections, parking and driveways making travel slow and highly variable. Travel speeds along the state highway journey between Ngāuranga Gorge and the airport are consistently below the posted speed limit.

The resulting travel delays and variable journey times for people, goods and services are significant. For example, the observed average travel times on SH1 between Ngāuranga Gorge and Wellington Airport (13kms) have been recorded as taking 25 minutes during the AM peak (+5 minutes longer than interpeak) but can take up to 42 minutes (+17 minutes above the AM peak average).

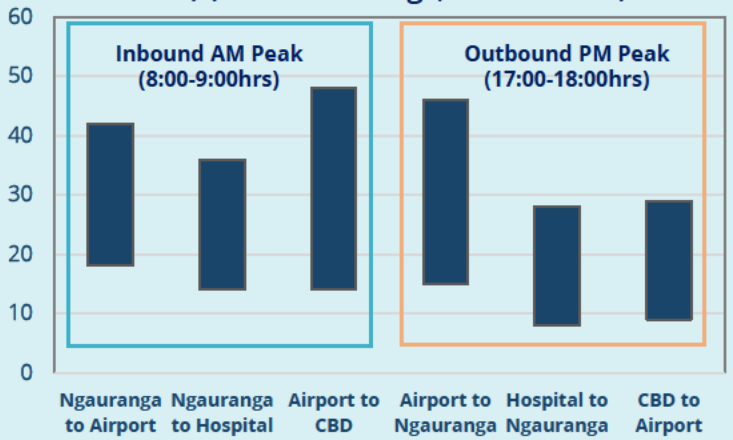
The highest level of variability is shown on the Wellington Airport to central city trip in the AM peak, with a 21-minute trip potentially taking up to 48 minutes (+27 minutes) reinforcing that the state highway is a critical part of a wider transport system for access to the CBD.

Hence a system approach is needed to state highway improvements to provide consistent capacity and reliability through the inner city while maintaining access and minimising impacts on other users of the transport system.

SH1 travel speeds (TomTom, 2024)



SH1 journey time variability for key trips (15th–85th %tile) (VMS recordings, March 2025)



A significant proportion of the expected additional 184,000 residents in Wellington Region by 2053 will reside north of the Wellington city centre or south-east of the Mt Victoria Tunnel. As travel demand grows the AM and PM peaks on SH1 between the Terrace Tunnel and Mt Victoria Tunnel will come closer together and the route will be close to capacity for much of the day.

Traffic modelling has shown that congestion on SH1 will result in more traffic onto alternative routes that are not designed for higher volumes of traffic. This will lead to longer and more unreliable journey times, longer peak periods and rat running through local roads such as around Oriental Bay thereby impacting their high place amenity value and safety.

With capacity constraints on SH1 through the Terrace Tunnel, more traffic will divert onto the Harbour Quays route and public transport reliability will be further compromised, leading to higher rates of bus bunching and lack of confidence in the system for users.

Mapping Problems and Benefits

STRATEGIC CASE

Investment Objective

To provide more efficient and reliable access on State Highway 1 from north of the Terrace Tunnel to Wellington Airport and Wellington Hospital to support regional economic growth.

Understanding the Problem

Inefficient and unreliable journeys

- There is growing demand for travel to, from, through, and within the central city including accessing education, employment, services and key destinations
- Road users of all modes are competing for limited space on constrained corridors
- Infrastructure at key locations has insufficient capacity to cater for the large numbers and types of road users
- Levels of service are poor and declining for all road users
- Travel times for journeys to key destinations are growing longer and becoming less predictable

Additional problems

- **Resilience:** The network has no flexibility and cannot accommodate unplanned closures or incidents
- **User conflicts:** Through traffic conflicts with bus routes cyclists and pedestrians crossing the SH leading to delays and safety impacts
- **Amenity:** Drivers choose to avoid the busy SH corridor and use less suitable streets through the city

Impacts of the Problem

On commuters and residents

- Journeys to key destinations are taking longer and people may miss their appointments
- Peak delays are occurring over longer periods of the weekdays and weekends
- People alter their travel times to avoid congestion leading to peak spreading
- Delays and severance to/from eastern suburbs
- Compromised uptake of public transport services
- Reduced quality of life
- Drivers make decisions to choose alternative routes where other modes and sensitive places are compromised

On freight and businesses

- 50% of travel outside the morning peak is for business purposes
- Delays have negative impact on business timelines and productivity throughout the day
- Delays to customers
- Weakened section of national supply chains / freight routes

On key destinations

4,000	Hospital Employees	Delays to time sensitive journeys and emergency services
5 million	Airport passengers pa	Unreliable access for visitors coming / going from Wellington Airport
120,000	City Centre Employees	Poor access and loss in confidence for business growth

Benefits of Resolving the Problems

Efficient and reliable journeys

- Improved travel time and reliability across the network
- Improved accessibility to key destinations including the hospital
- Reduced friction and road user conflict in the city centre
- Future-proofed network able to accommodate anticipated growth
- Supports household and employment growth in the central city, south, east and airport precinct

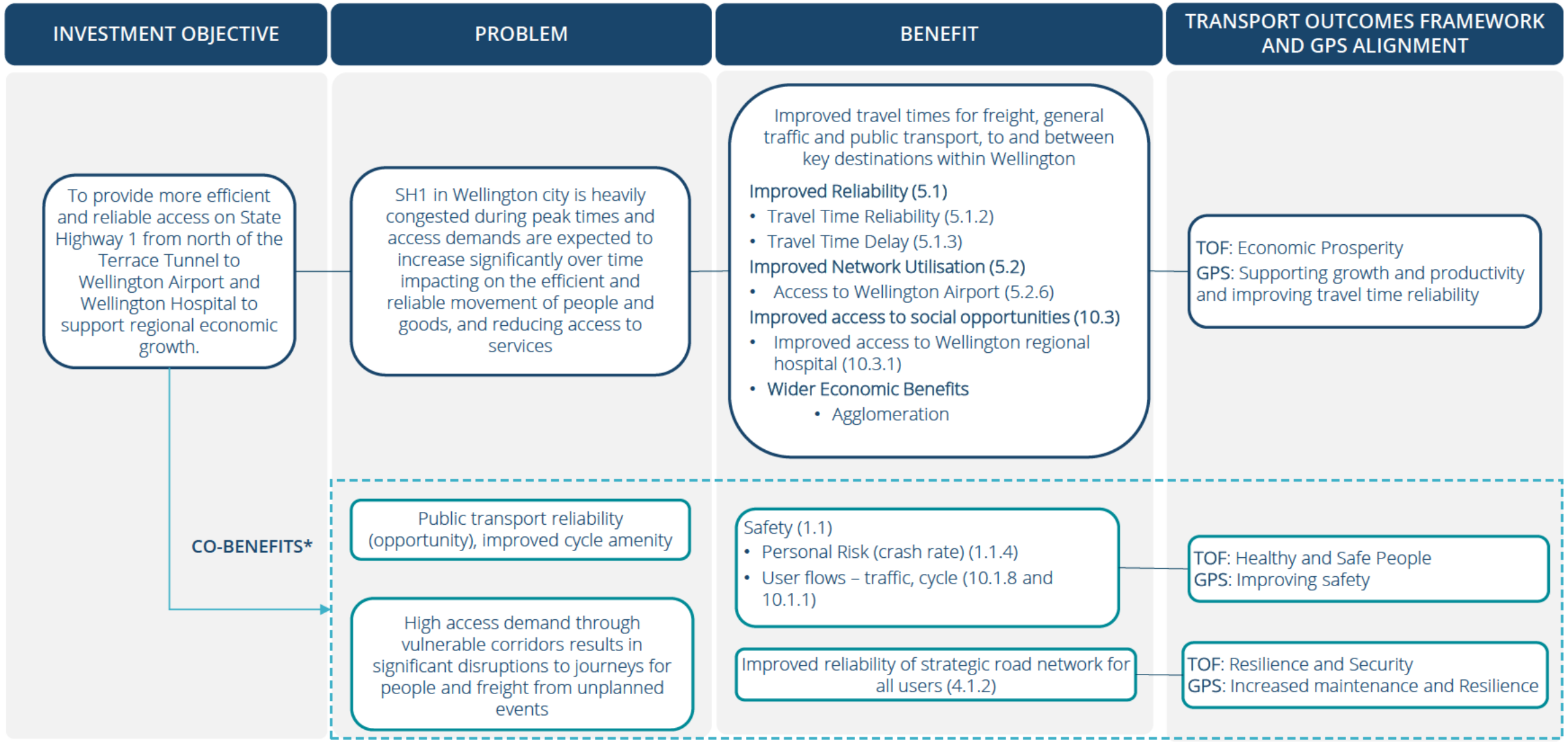
Co-Benefits

- **Resilience:** More network capacity to respond to unplanned events
- **User amenity:** Improved cycle amenity through Mt Victoria tunnel
- **Public Transport opportunity:** More reliable bus journeys through traffic management and reduced vehicles flows on key routes

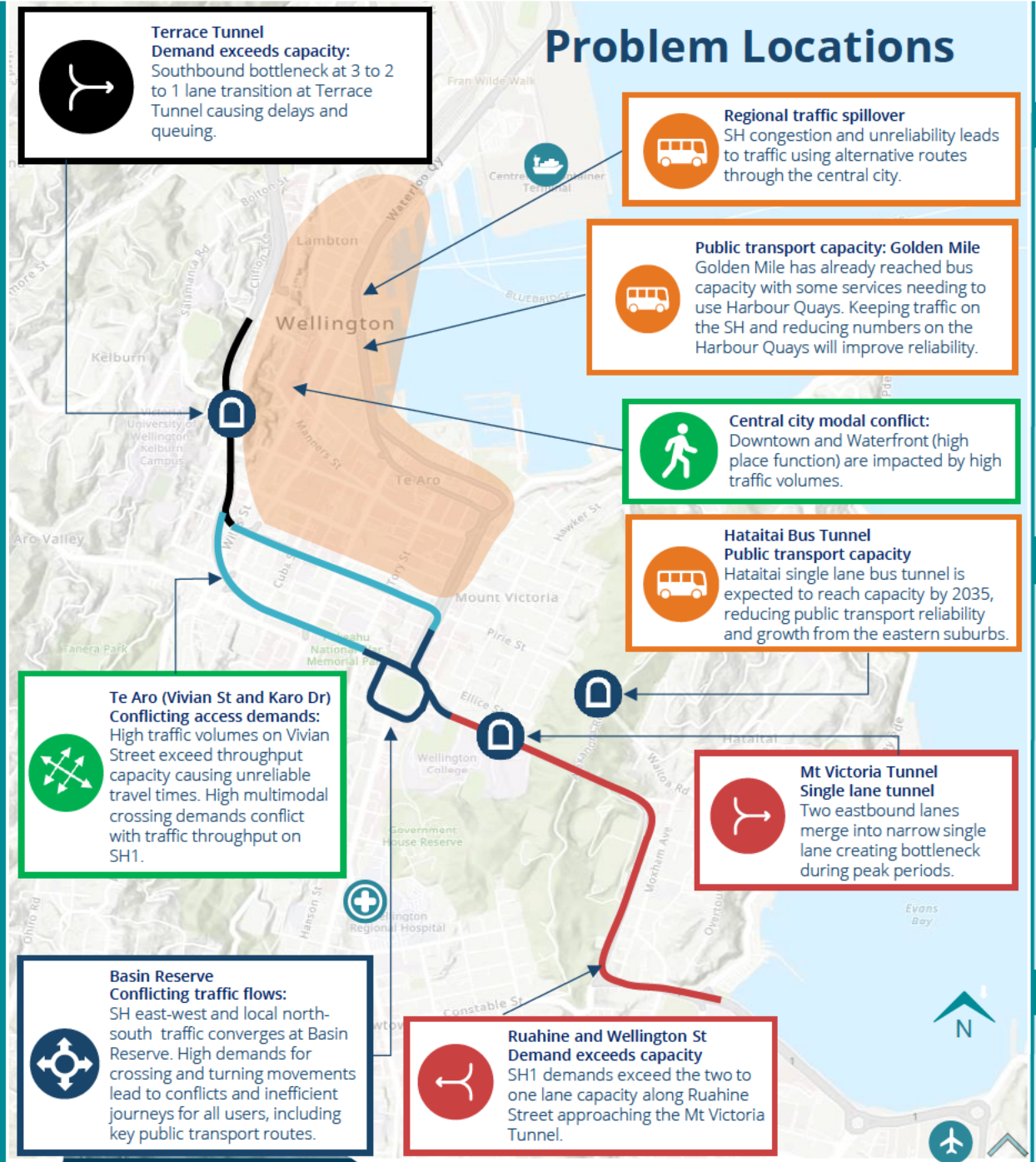
Investment Objective and KPI's

The SH1 Wellington Improvements will support economic productivity and growth by improving travel time reliability and providing additional throughput capacity on the state highway. Improving the efficiency of the State Highway will also provide system-wide benefits for all users through improvements to safety and efficiency across the wider network by reducing traffic demands on the local roads upon opening.

The benefits from investment are aligned to the **NZTA Land Transport Benefits Framework** (#).



Problem Locations



Strategic alignment

Government Policy Statement on Land Transport (2024)

The Government Policy Statement on Land Transport 2024 sets the strategic direction of transport investment in New Zealand. GPS 2024 has established four strategic priorities for investment:

- Economic growth and productivity.
- Increased maintenance and resilience.
- Safety.
- Value for money.

The transport sector supports economic growth and productivity by providing quality transport connections, which enable people and goods to reach their destinations efficiently and safely. In line with the priorities of the GPS, the investment objective for the SH1 Wellington Improvements RoNS project is to "support economic growth and productivity". The project will also support the operational resilience of the transport network within central Wellington.

Ministry of Transport Outcomes Framework

The SH1Wellington Improvements project aligns with the following core elements of the framework:

Economic prosperity: The SH1 transport corridor is a vital transport connection for economic growth, linking residential, employment, and economic centres within Wellington city and the wider Wellington region. Investment is critical to maintaining efficiency, reducing congestion, and supporting economic prosperity in alignment with GPS objectives. It also supports regional economic activity through local, regional and international travel connections to Wellington International Airport.

Inclusive Access: Access is vital for economic activity and provides an important role in social development. SH1WI will provide improved local and regional access to employment, education and healthcare facilities

Resilience: Wellington city's transport system is vulnerable to system shocks, through both natural hazards or general operational impacts.

Wellington Regional Land Transport Plan

The SH1WI project aligns with the vision for the land transport network outlined within the Wellington Regional Land Transport Plan (RLTP) :

"A connected region, with safe, accessible and liveable places – where people can easily, safely and sustainably access the things that matter to them and where goods are moved efficiently, sustainably and reliably."

Unblocking Wellington bottlenecks to unlock productivity and enable growth

THE CASE FOR CHANGE

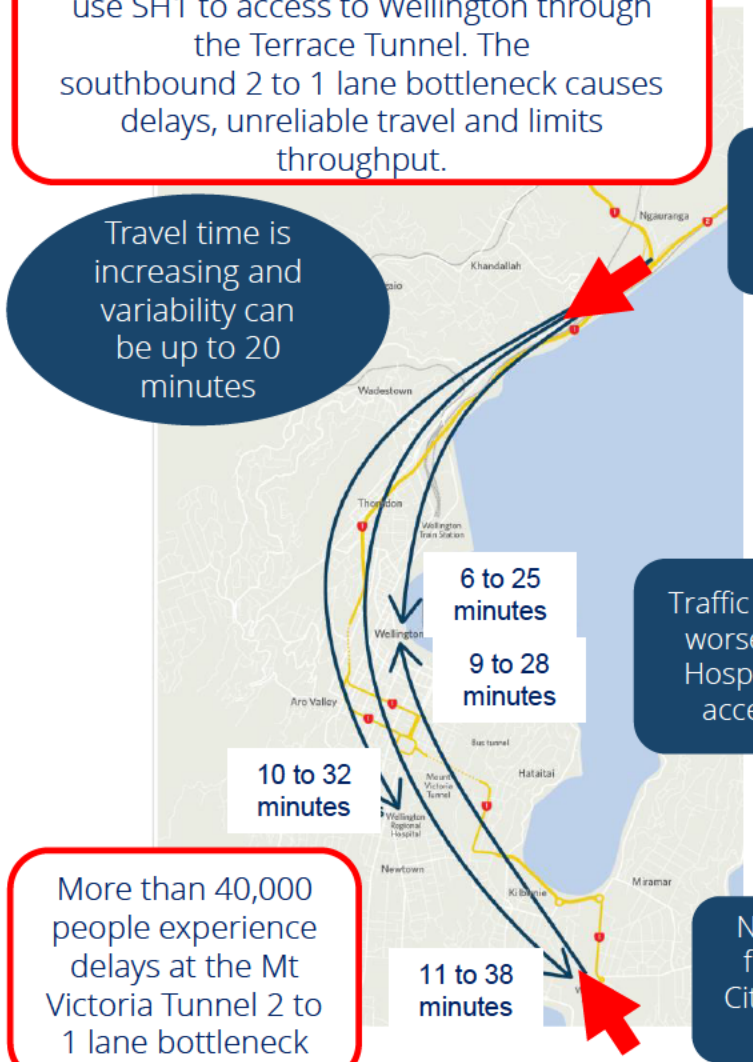
Currently, more than 50,000 people per day use SH1 to access to Wellington through the Terrace Tunnel. The southbound 2 to 1 lane bottleneck causes delays, unreliable travel and limits throughput.

Travel time is increasing and variability can be up to 20 minutes

Time critical national and regional journeys rely on SH efficiency and reliability to access airport and Wellington Hospital

Incidents and transport disruptions can result in significant delays

Traffic growth and bottlenecks worsen travel times to/from Hospital and Airport and for access to the Central City



More than 40,000 people experience delays at the Mt Victoria Tunnel 2 to 1 lane bottleneck

Nationally important journeys from Airport into the Central City experience high delays and unreliability

A more efficient and reliable SH reduces traffic rat-running on the local road and improves resilience to unplanned incidents

SH1 and Harbour Quays are inter-related - reducing traffic on Harbour Quays enables better use by public transport (to relieve Golden Mile bottleneck)

Remove Terrace Tunnel 2 to 1 bottleneck

State highway signal optimised to improve throughput and access

Enable safe cross movements of the SH corridor

Hataitai single lane bus tunnel restricts future PT growth, that could be relieved if some buses use the SH

Remove Mt Victoria 2 to 1 bottlenecks

SH1 Wellington Improvements will support growth in the region

Housing growth

National and regionally significant trips coming into Wellington will increase as housing and employment growth occurs over the next 30 years.

- 31% of the regional housing growth will occur in Wellington City.
- Continued housing growth in southern and eastern Wellington suburbs, with intensification in the central city.
- Two thirds of the housing growth will occur in the wider region.

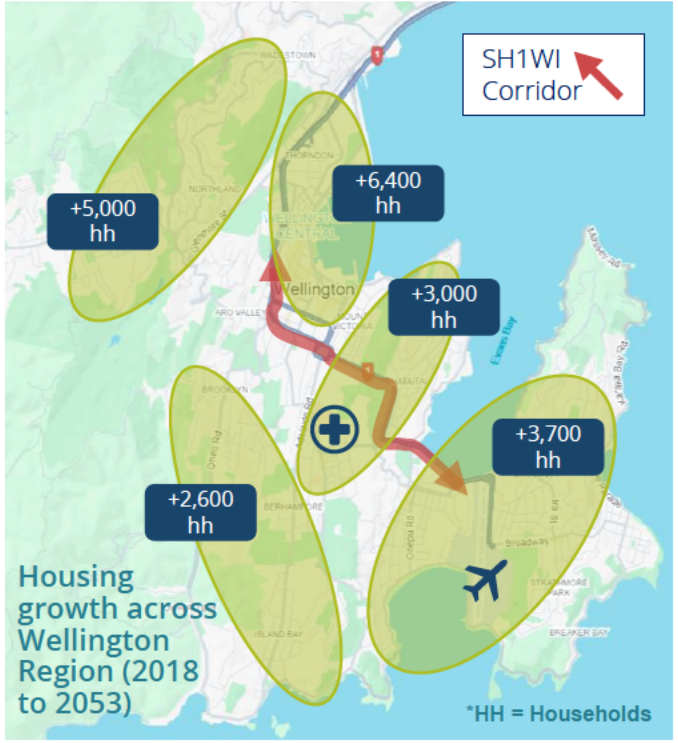
State highway improvements improve efficiency and reliability and free up local roads to provide access to all destinations.

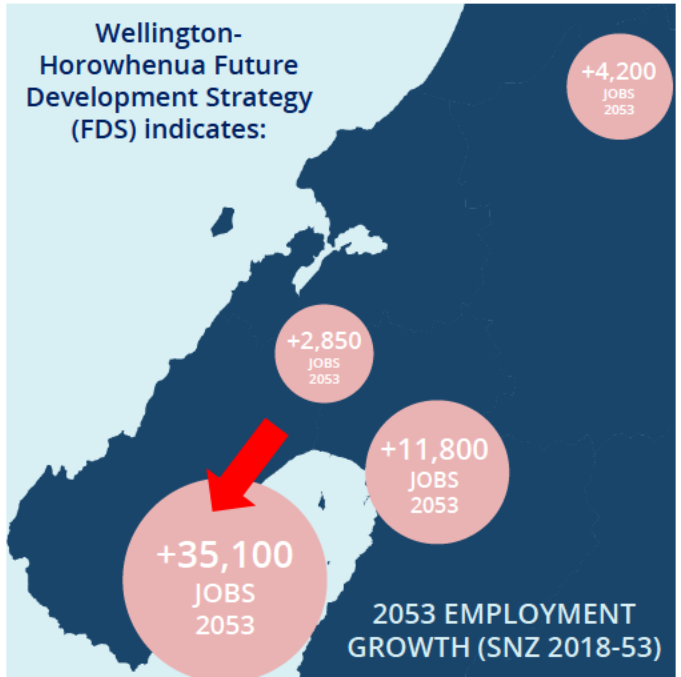
Employment growth

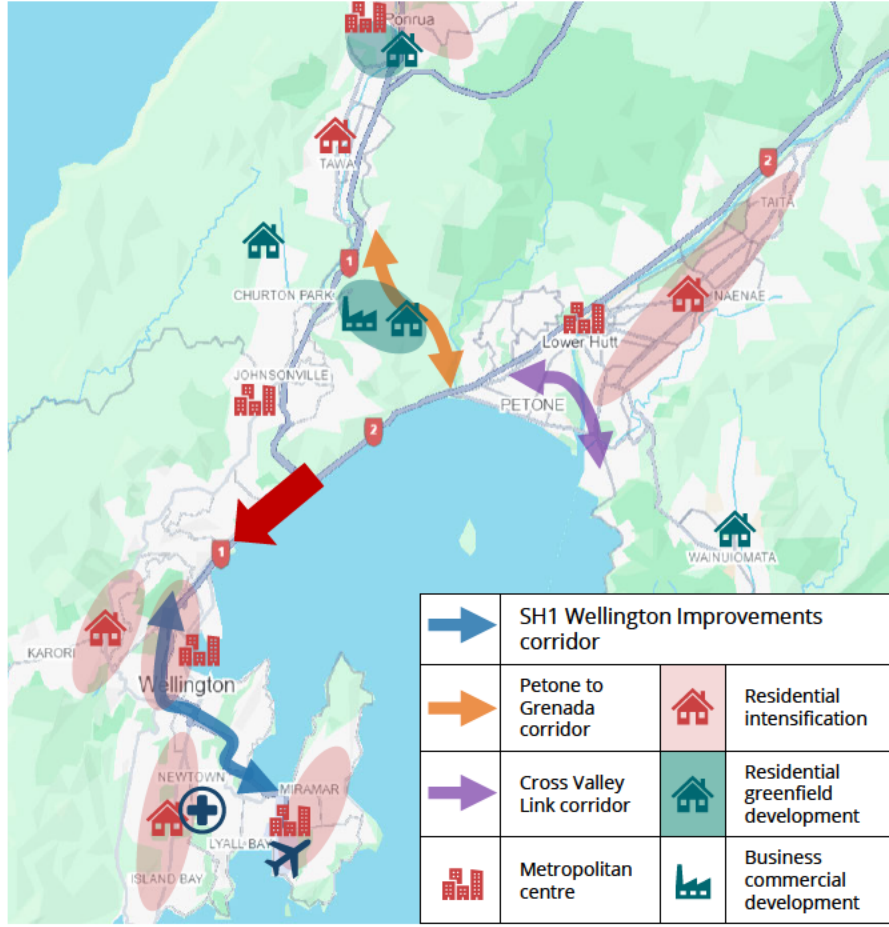
Employment and housing growth will occur across the region, with a significant proportion of new job growth in Wellington City.

- Continued focus of jobs within the Central City, southern and eastern suburbs.
- 60% of regional job growth will be focused in Wellington City.
- Increase of 3,600 jobs related to Wellington Hospital and regional health board by 2053.

Improvements to the efficiency of the SH1 route will support the increase in daily movements into the central city and towards the southern and eastern reaches of Wellington. With two thirds of housing growth expected to occur outside the city, but two thirds of employment growth located within the city, a large proportion of journeys will be reliant on SH1 for access between home and work.







Supporting strategic regional connections

SH1 Wellington Improvements is core to meeting future transport demands in Wellington's urban centre, while integrating with wider network investment.

The Petone to Grenada RoNS (P2G) will relieve congestion at the Ngāuranga interchange and free up access into Wellington via SH1.

Enabling connectivity between key housing and employment growth and intensification nodes across the region means more certainty for economic investment, businesses, developers, and investment from wider local, regional and national government entities.

Communication and engagement with mana whenua, local councils, stakeholders and the community to date

The SH1 Wellington Improvements project builds on work done through previous iterations of the scheme, most recently through the Let's Get Wellington Moving (LGWM) partnership between NZTA, Wellington City Council and Greater Wellington Regional Council. Extensive engagement with mana whenua, local councils, stakeholders and the Wellington regional community was undertaken as part of this work.

The insights generated through these previous engagement activities combined with empirical data has helped inform and shape the SH1 Wellington Improvements scheme proposed within this Investment Case. These insights offer a picture of the frustrations the community experiences with the current regional transport system as well as their aspirations for the future. The project team has also drawn on community feedback around specific design options considered previously.

Following the investment case decision, a programme of stakeholder and community engagement is planned to improve the understanding of the project outcomes and how the recommended option meets customer needs. This feedback will be considered by NZTA decision-makers before any decisions are made to implement the recommended option.

Feedback received through previous community engagement

Common frustrations:

- Traffic congestion and inefficient public transport
- Unreliable journey times through central city and to places like hospital and airport
- Too many cars in the central city

Support for:

- 2nd Mt Victoria Tunnel (including dedicated walking and cycling facility) and improvements to Basin Reserve
- Projects that improve public transport

Common community concerns expressed about previous options:

- Impacts on heritage and Basin Reserve area in general
- Impacts on schools – access and safety
- Severance issues (i.e. Hataitai and Town Belt)
- Lack of progress – keen for something to happen

2012
Engagement to inform decisions on the design aspects of the Cobham Drive to Buckle Street transport improvements (including a second Mt Victoria Tunnel and upgrades to the Basin reserve)

November 2017
Region-wide engagement on four scenarios designed to support Wellington's transport future

November 2021
Public engagement on LGWM programme including options for duplicate Mt Vic Tunnel and Basin Reserve

Significant community engagement activities undertaken through previous project phases

2016
Region-wide engagement captured insights on community values, frustrations and aspirations for transport system.

2018
Region-wide public research poll canvassing opinions on a range of possible transport solutions

Our Iwi Partnership Approach

Taranaki Whānui ki te Upoko o te Ika and Te Rūnanga o Ngāti Toa Rangatira

What:

A project integration lead has been established to:

- Develop iwi partnership approach
- Initiate strategic relationships
- Establish mana whenua steering / engagement group
- Identify culturally significant sites within project area
- Assess cultural impacts of options (Cultural Impact Assessments)
- Identify sensitive locations to be avoided if possible (critical constraints) or investigate mitigation options
- Outline opportunities to mitigate effects or enhance cultural interests in line with value for money
- Explore iwi procurement and surplus land disposal opportunities

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Refer to Appendix B – Areas of Cultural Interest

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Uncertainties, Assumptions and Opportunities

Refer to Appendix C – Uncertainty Register

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Project Frame Guides Design Development, Assessments and Decisions

Refer to Appendix D - Approach to option assessment

Problem:
SH1 travel is unreliable and getting worse with growth

Unblocking the bottlenecks will unlock productivity and enable economic growth

To provide more efficient and reliable access on State Highway 1 from north of the Terrace Tunnel to Wellington Airport and Wellington Hospital to support regional economic growth

Achieving this will provide the following benefits:

- Improved travel time
- Improved reliability
- Improved access to national and regional places

Project objectives

Deliver on strategic priorities quickly, efficiently and effectively through:

- Delivery at pace
- Value for Money - make most of existing assets
- Flexible – staging and sequencing
- Minimise construction disruption

Critical Success Factors

Te Ao Māori

Effects

- Economic
- Social
- Environmental
- Heritage

We aim to achieve objectives while minimising impacts on Town Belt, heritage/cultural sites, connectivity to neighbouring communities and key modal corridors.

Our starting macro scope

Refer to Appendix E – Commencement Report

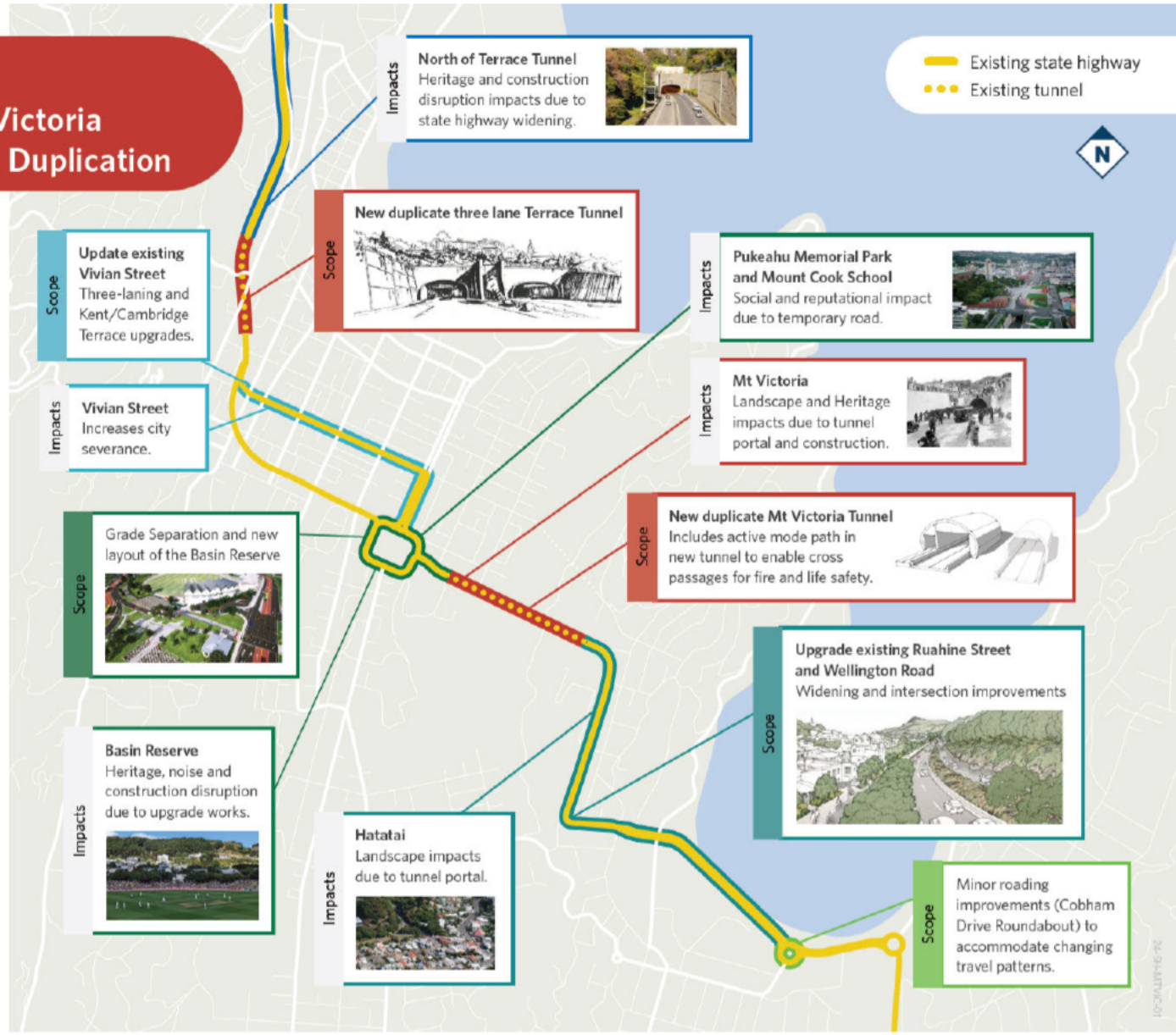
Middle option

Basin and parallel Mount Victoria Tunnel and Terrace Tunnel Duplication

SH1WI and P2G are the last sections to 'complete' the Wellington Northern Corridor.

During 2024 the NZTA investigated a long tunnel (Terrace Tunnel to Kilbirnie) and diagonal tunnel (Basin to Kilbirnie) with the Board approving the SH1WI project macro-scope (as shown on the right).

Understanding benefits to public transport and integration with the wider transport system is a core requirement for project success.



Constraint Mapping

Refer to Appendix F – Social and Environmental Screen

Corridor Wide

Residential and Commercial

SH1 passes through a dense city environment, bounded by commercial, educational and residential development. Improvements that fall outside of the road designation (such as road widening) will require additional property, particularly around Terrace Tunnel, Basin Reserve/Mt Victoria Tunnel and the eastern connections (including Ruahine Street and Wellington Road).

Areas of Significance to Mana Whenua

Sites of cultural and/or spiritual significance to the local iwi include (but are not limited to) the Kumutoto Pa and Awa, Hauwai Cultivation area (near the Basin Reserve), Te Akatarewa Pa and Te Ranga Hiwi located close to the Mt Victoria Tunnel. Any improvements will need to consider the impacts on these and other areas of interest or value to Mana Whenua.

Proximity to Tunnels

Any new parallel tunnels will need to be sufficiently separated to avoid compromising the structural integrity of existing tunnel. Control rooms adjacent to the tunnels may also require relocating or upgrading to support the tunnel alignments.

Terrace Tunnel

SH1 Northern Approaches (Shell Gully)

Widening to accommodate southbound lanes would need to cross over the Wellington Cable Car which passes under the Clifton Terrace on-ramp / Shell Gully Overbridge. This section is also bounded by the Bolton Street Cemetery.

Ghuznee Street Bridge

SH1 exits the existing Terrace Tunnel onto the Wellington Inner City Bypass, which passes underneath the Ghuznee Street overbridge. Any widening of SH1 to accommodate a new tunnel will require alterations to, or replacement of, the existing Ghuznee Street overbridge structure.

Te Aro

Central City Access and Connectivity

SH1 through Te Aro provides a key distributor function providing connectivity to the local road network. Improvements will need to consider how the transport system will function as a result of any changes to connectivity.

Basin Reserve

Arras Tunnel and Pukeahu National War Memorial Park

The Arras Tunnel carries SH1 northbound underneath Pukeahu National War Memorial Park. The Pukeahu National War Memorial is a site of important cultural significance.

Basin Reserve

The Basin Reserve is one of Aotearoa New Zealand's most historic grounds for sporting, recreational and cultural events, and is recognised on Heritage New Zealand Pouhere Taonga's (HNZPT) List as a Category 2 Historic Area. It is also used as an off-road active modes connection between Adelaide Road and Kent/Cambridge Terraces and for access to a number of schools in the areas.

Heritage Buildings

There are a significant number of heritage buildings identified within both the District Plan and Heritage NZ around the Basin Reserve. This includes the Home of Compassion Creche which was previously relocated as part of the Arras Tunnel project. Any improvements need to consider minimising or mitigating the impact on heritage buildings.

Mt Victoria Tunnel

Recreational Facilities, Parks and Open Spaces

Hataitai Park and Kilbirnie Park are significant recreational spaces, which are accessed from SH1 at Wellington Road and Ruahine Street. A shared user bridge is also provided over SH1 connecting Hataitai centre to Hataitai Park. The Badminton Wellington facility is also accessed directly from Ruahine Street. Any widening needs to consider the impacts on the ability to operate and access these facilities.

Wellington Town Belt

The Town Belt is protected by an Act of Parliament and is supported by open space policies in the District Plan. Areas of the scheme bounded by Town Belt land include Mount Victoria Tunnel, and small parcels of land on Cambridge Terrace (known as the Canal Reserve).

Network Integration Approach

Network Integration Philosophy

- Encourage traffic onto SH1 as the strategic movement corridor to reduce traffic on local roads and rat-running to enable opportunities for other modes and spaces to be realised by others.
- Apply road hierarchy principles to minimise local road connections to keep SH1 moving efficiently while maintaining key access to local destinations between the Terrace and Mount Victoria Tunnels and through Hataitai.
- Maintain key bus and active mode routes and enable opportunities for buses movements to travel through the new Mt Victoria Tunnel (to be realised by others).
- Retain connectivity and reduce severance across SH1 for active modes where practical.

Project Design Approach

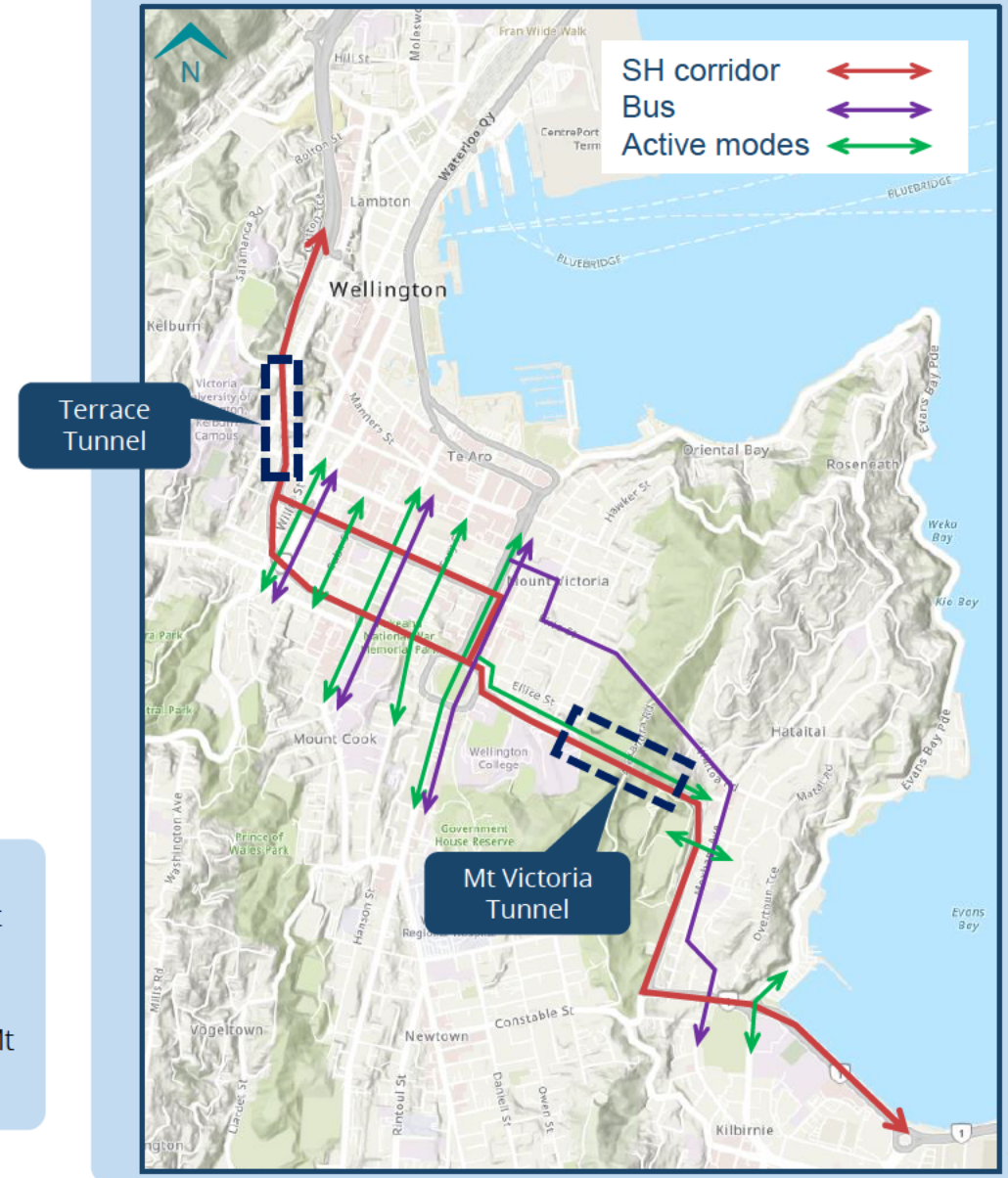
While SH1 is prioritised for efficiency and reliability, we have designed and allowed for:

- Key bus and cycle routes to cross SH1, especially on key connector routes.
- Flexibility to enable buses to use the corridor (particularly at Mt Victoria).
- Safe pedestrian crossings of SH1 at controlled locations.
- Provision of improved shared use path facility in the new duplicated Mt Victoria Tunnel.
- Providing opportunities for future landscape enhancement and urban development in residual property spaces (to be realised by others).

One mega project to realise the benefits of unblocking the bottlenecks

- Unblocking the Tunnel bottlenecks increases traffic through the Inner City with associated conflict and safety risks
- The Basin Reserve, Karo Drive and Vivian Street improvements address key conflict points and improve throughput efficiency through Te Aro to match the uplift in capacity of the Tunnels.The Mt Victoria Tunnel 4 lanes must be delivered with natching Eastern Road upgrade through to Cobham Dive

KEY BUS AND ACTIVE MODE ROUTES (THAT INTERACT WITH SH1)



Corridor Design Philosophy

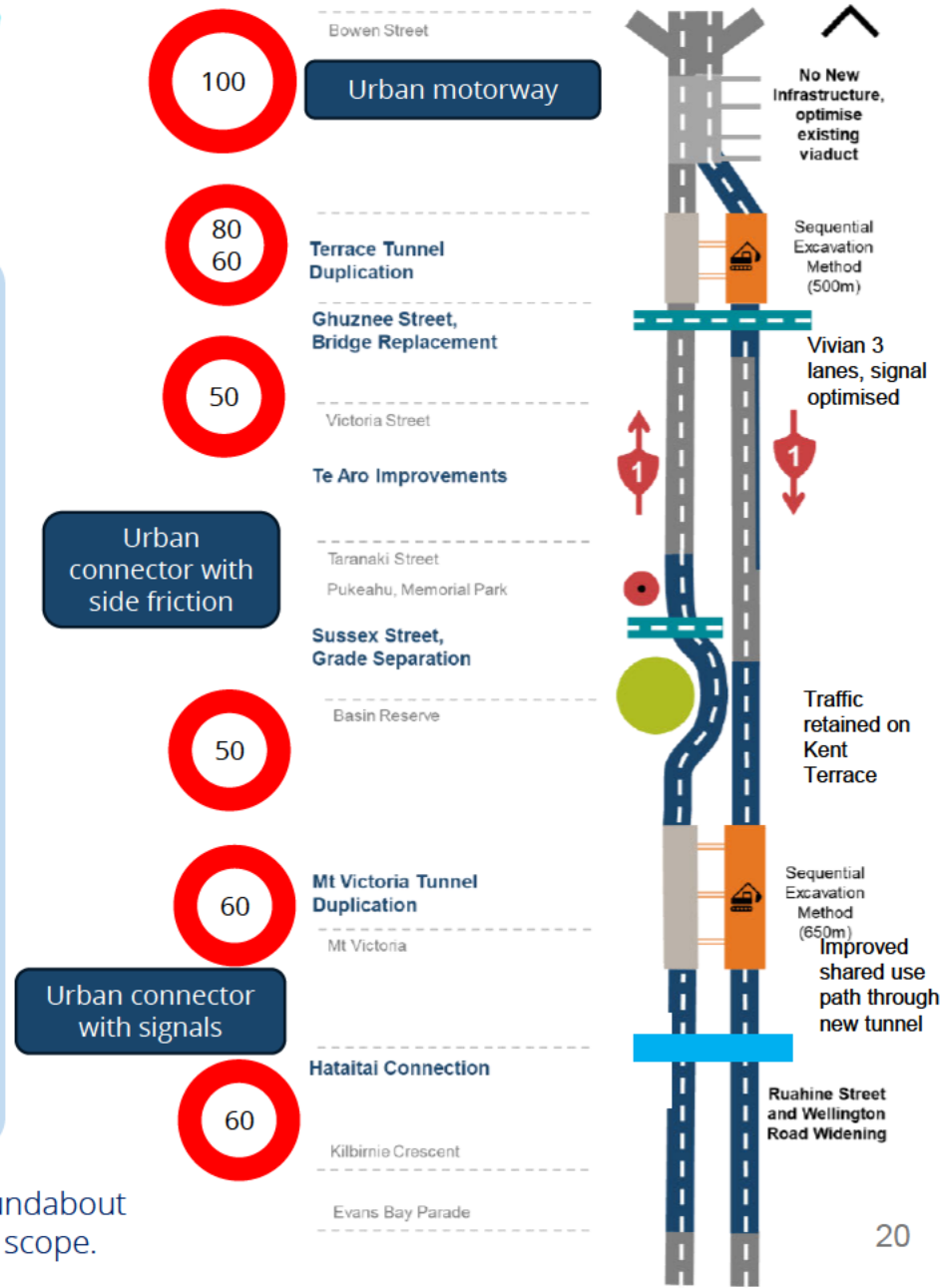
Refer to Appendix G – Design Report

The solution will deliver an efficient and reliable State Highway that is integrated with wider transport outcomes and minimised effects.

The design philosophy makes best use of existing assets, provides consistent capacity along the corridor and can be staged to minimise impacts during construction.

Design Concepts

- Make best use of existing infrastructure by allowing narrow shoulders on Motorway to avoid additional viaduct over Shell Gully and avoiding width changes to the Arras Tunnel.
- Speed transition from Motorway 100 km/hr to 80 km/hr through Terrace Tunnel then 60 km/hr and 50 km/hr through the Urban section of the Inner City (Te Aro/Basin) – then transition to 60 km/hr through the Mt Victoria Tunnel, tight corners and traffic signalised urban corridor along Ruahine Street and Wellington Road to Cobham Drive.
- Remove 2 to 1 lane southbound bottleneck at Terrance Tunnel with a second 2 lane tunnel.
- Provide SH capacity to match expected travel demands and deliver efficiency and reliability, and equalize across tunnels and Inner City.
- Retain safe access and crossing of the state highway corridor for general traffic, public transport and active modes through Te Aro.
- Reduce turning/crossing conflicts at the Basin by separating the SH from local movements between Cambridge/Kent and Adelaide Road.
- Remove the 2 to 1 lane bottlenecks at Mt Victoria Tunnel approaches with a second parallel tunnel including an improved walk/cycle facility from Hataitai to the city.
- Retain access for local communities within Kilbirnie and Hataitai.
- Minimise effects on Town Belt, heritage, cultural sites, connectivity / access for neighbouring communities, key bus and cycle routes.
- Enable opportunities for uptake in use by all modes and place enhancements.



Note: the Troy Street roundabout has been removed from scope.

Key Decision Mapping

The SH1 Wellington Improvements RoNS project has been developed using the decision-led approach. This allows choices to be presented to decision makers during the project development to narrow the uncertainty and risks associated with project scope, cost and deliverability.

The table below summarises high level decisions made which have informed the recommended option for this Investment Case. Many other technical decisions were made within the project team.

Key Decisions	2024		2025							
	November	December	January	February	March	April	May	June	July	August
Governance	Confirm Project Scope 1A							At-risk funding for early consenting work 1B	Investment Case Endorsement 1B	Investment Case Approval 1A
Design Development				Terrace Tunnel Capacity Te Aro Option Refinement 2A	**CEAG** – Lane widths and form of Arras Tunnel, ICB Trench & Shell Gully Bridge 1B	**CEAG** – Shell Gully Bridge (Structural Capacity) 1B	Active Modes in Mt Victoria Tunnel 2A			
Delivery Approach							Sequencing and Staging 2A	Delivery Strategy 1C		
Financial		Tolling Assessment Gate 1 – Proceed 1C								Tolling Assessment Gate 2 – Proceed 1A
Investment	IC Project Brief, Point of Entry and IC Funding 1B						Emerging Preferred Option 1C			

2B Project Workstream Lead
2A Project Director / Manager
1A NZTA Board
1B National Portfolio Governance / VOS / CEAG
1C Sponsor

Recommended Option

The solution will deliver the project objective of a more efficient and reliable state highway and support wider transport system outcomes while minimising impacts that could affect consentability - Town Belt, Heritage/cultural sites, connectivity to neighbouring communities and key modal corridors.

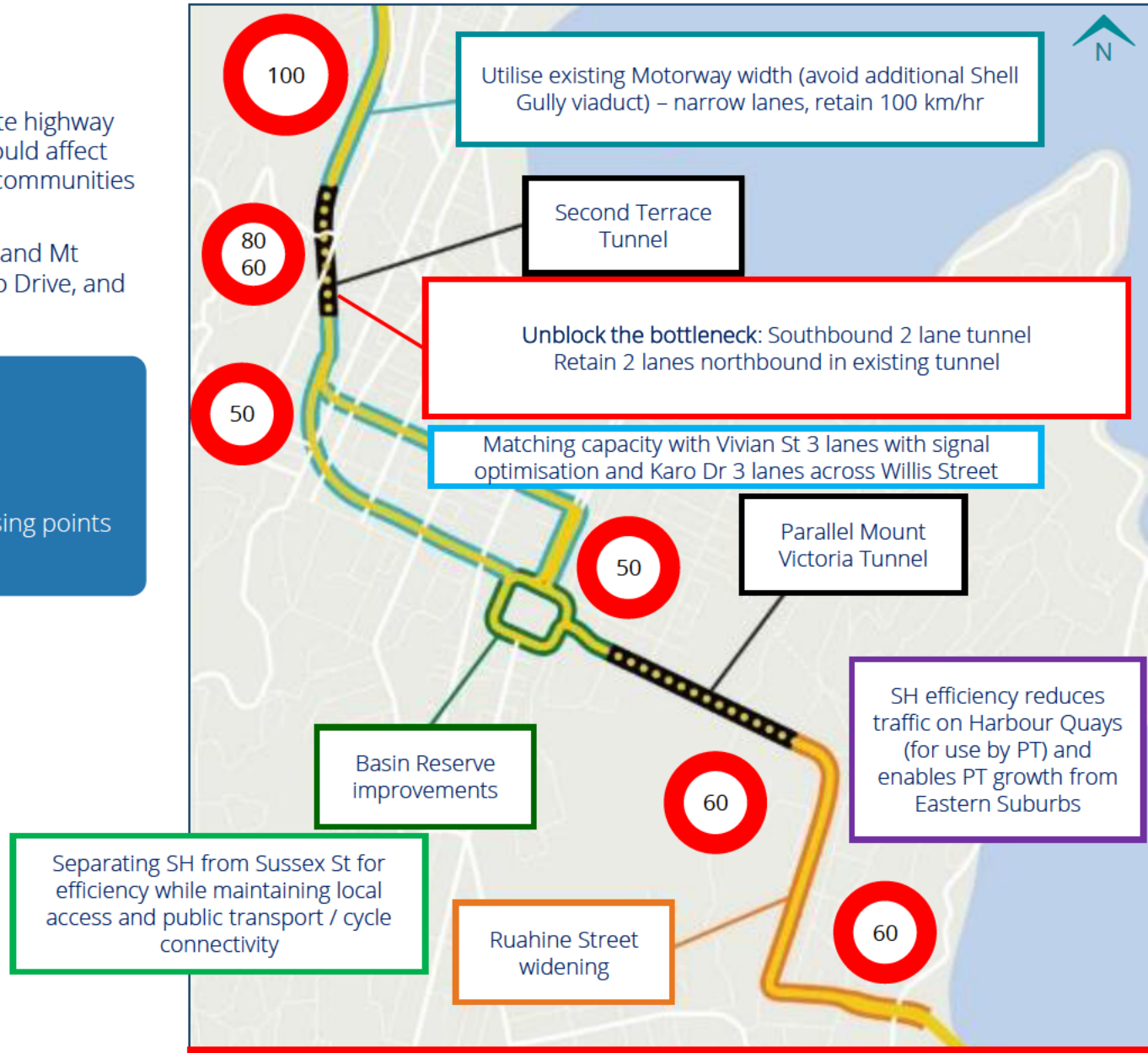
The design focus unblocks the 2 to 1 lane bottlenecks approaching the Terrace and Mt Victoria Tunnels, optimises traffic signal throughput along Vivian Street and Karo Drive, and separates state highway and local road conflicts at the Basin Reserve.

Decision to stay at-grade through Inner City:

- Avoided high-cost infrastructure (long tunnels and over bridges)
- Optimise throughput efficiency with consistent capacity to match demands
- Vivian reconfigured to 3 lanes, signal optimise, rationalise turns, manage crossing points
- Karo Drive 3 lanes at Willis St for signal optimisation

Design philosophy

- Unblocking critical bottlenecks
- Value for money - making the most of existing assets
- Maintaining access for local movements
- Enabling public transport growth
- Staging and sequencing options for agile delivery
- Minimising construction disruption



Terrace Tunnel Duplication

Existing Terrace Tunnel Arrangement

The existing Terrace Tunnel was constructed in 1978 and is formed of three traffic lanes comprising two northbound lanes and one southbound lane.

The existing 2 to 1 lane southbound merge for traffic travelling into the city creates a bottleneck that disrupts traffic flow and constrains throughput to less than 1500 vehicles per hour.

This spreads the peak flows from 6am to 7pm on weekdays and from 10am to 6pm on weekends.

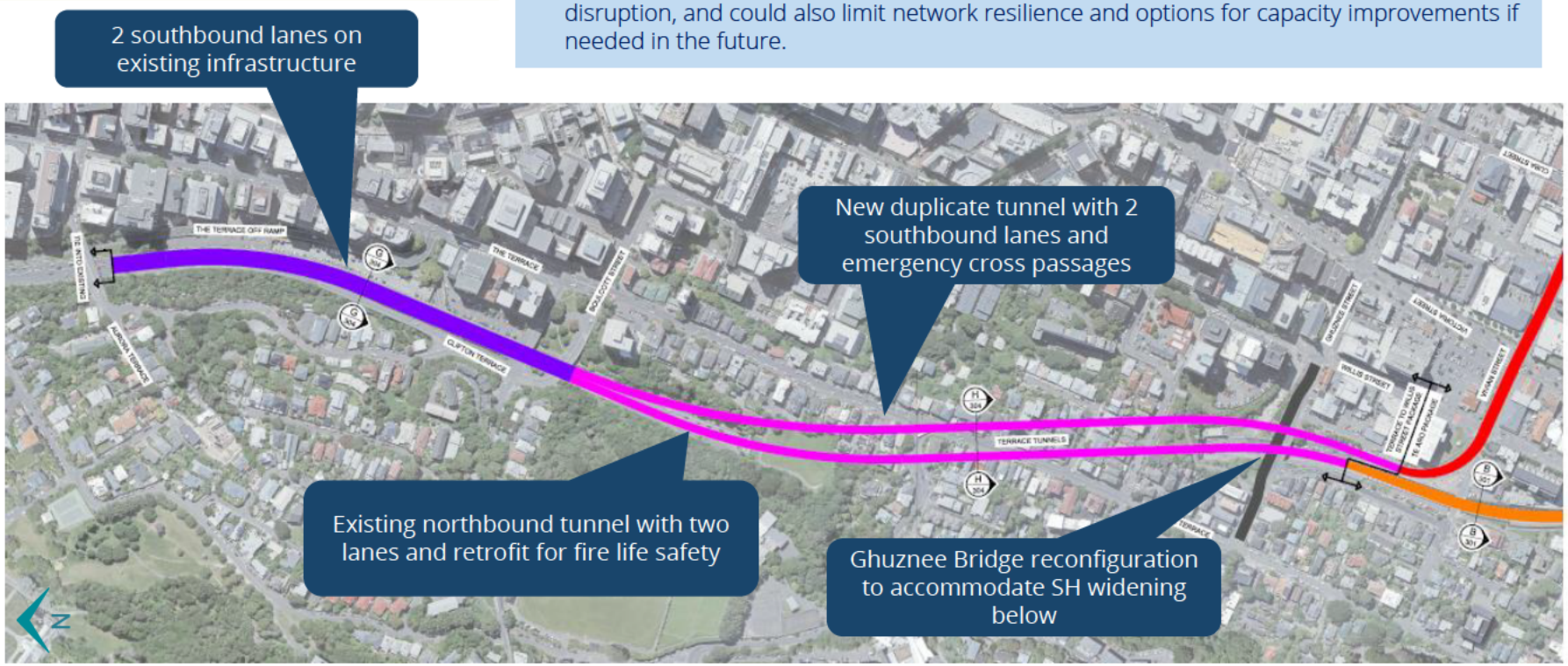
When delays occur, traffic also spills over onto the local road network, particularly the Harbour Quays thereby impacting public transport capability.

Option Development

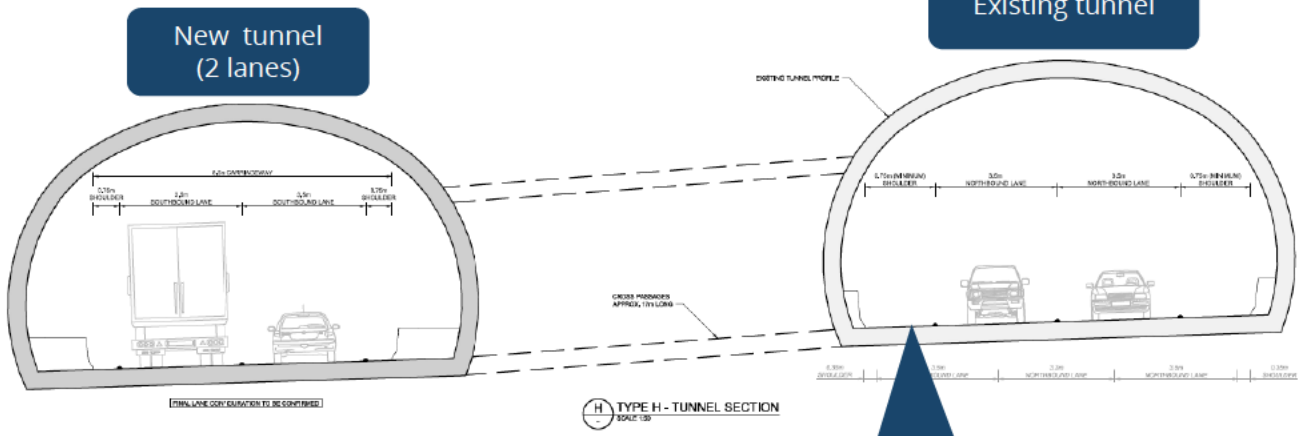
- The starting scope suggested a three lane duplicate tunnel, but transport analysis indicates that two lanes provide enough capacity to support existing and forecast traffic demands.
- A two lane tunnel also matches the vehicle flow that can be provided with three lanes through the traffic signals along Vivian Street in Te Aro.
- Two southbound lanes can be accommodated on the existing motorway structures (Shell Gully viaduct) providing capacity and throughput benefits with reduced cost, thereby offering value for money.
- An alternative option considered widening of the existing tunnel structure from three to four lanes. Analysis indicates this would create a higher level of constructability risk, traffic disruption, and could also limit network resilience and options for capacity improvements if needed in the future.

Outcomes and Impacts

- Provides additional southbound capacity on SH1 to remove bottleneck constraint for vehicle trips towards the central city – improving travel time and reliability.
- Improved SH1 corridor reduces traffic spill-over onto the Harbour Quays freeing it up for public transport and other adjacent uses.
- Provides increased network resilience to unplanned incidents through additional network redundancy, with the new tunnel designed to modern fire life safety and seismic standards, and separating northbound and southbound traffic movements.
- Some impacts to open space and property adjacent to tunnel portals, although less than required to provide a three lane duplicated tunnel.



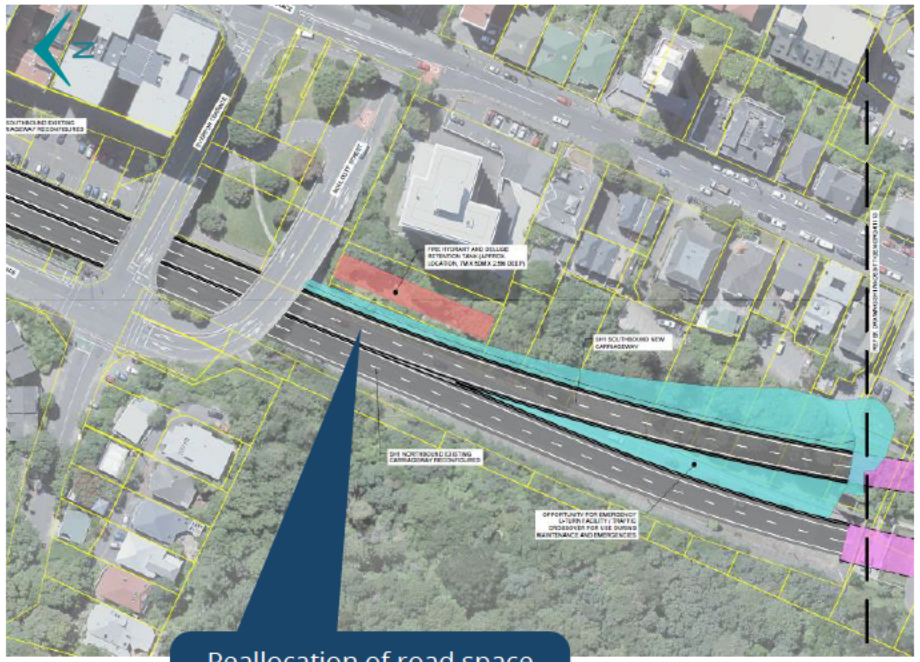
Terrace Tunnel Duplication (2)



Residual impacts to be resolved in next phase

- Temporary impacts on parking and structures at the Clifton Terrace carpark
- Intelligent Transport Systems and control systems to mitigate safety risk with no shoulders on Shell Gully Overbridge
- Need for independent water supply and detention for tunnel deluge systems

Lane reconfiguration and safety retrofit. existing southbound lane reallocated to fire life safety egress



Reallocation of road space on Shell Gully Overbridge structure to add extra lane

Cross passages for fire life safety

Existing tunnel

New tunnel (2 lanes)

New ventilation and tunnel control system building

Replaced Ghuznee Street bridge to provide space for additional southbound traffic lanes on SH1

Te Aro - Vivian Street / Karo Drive

Existing Vivian Street and Karo Drive

- Vivian Street and Karo Drive form the SH1 one-way pair that provides for both through movements across the central city, as well as providing local access to the inner city, western and southern suburbs, including Wellington Regional hospital.
- Vivian Street (SH1 eastbound) has a high number of adjacent businesses and comprises two traffic lanes, signalised intersections for turning movements and pedestrian crossing, on-street parking and footpaths. The corridor layout, signal operations and side friction leads to poor levels of service, delays and queuing.
- Karo Street (SH1 westbound) has less parking and generally flows more freely until Willis Street where two lanes through the traffic signals create delays and queues.

Vivian Street reconfigured to:
- 3 lanes eastbound
- Traffic signals optimised
- Full movements at key connectors - Willis, Victoria, Taranaki and Cambridge

Removal of street parking along Vivian Street

Pedestrian crossings retained at all signals

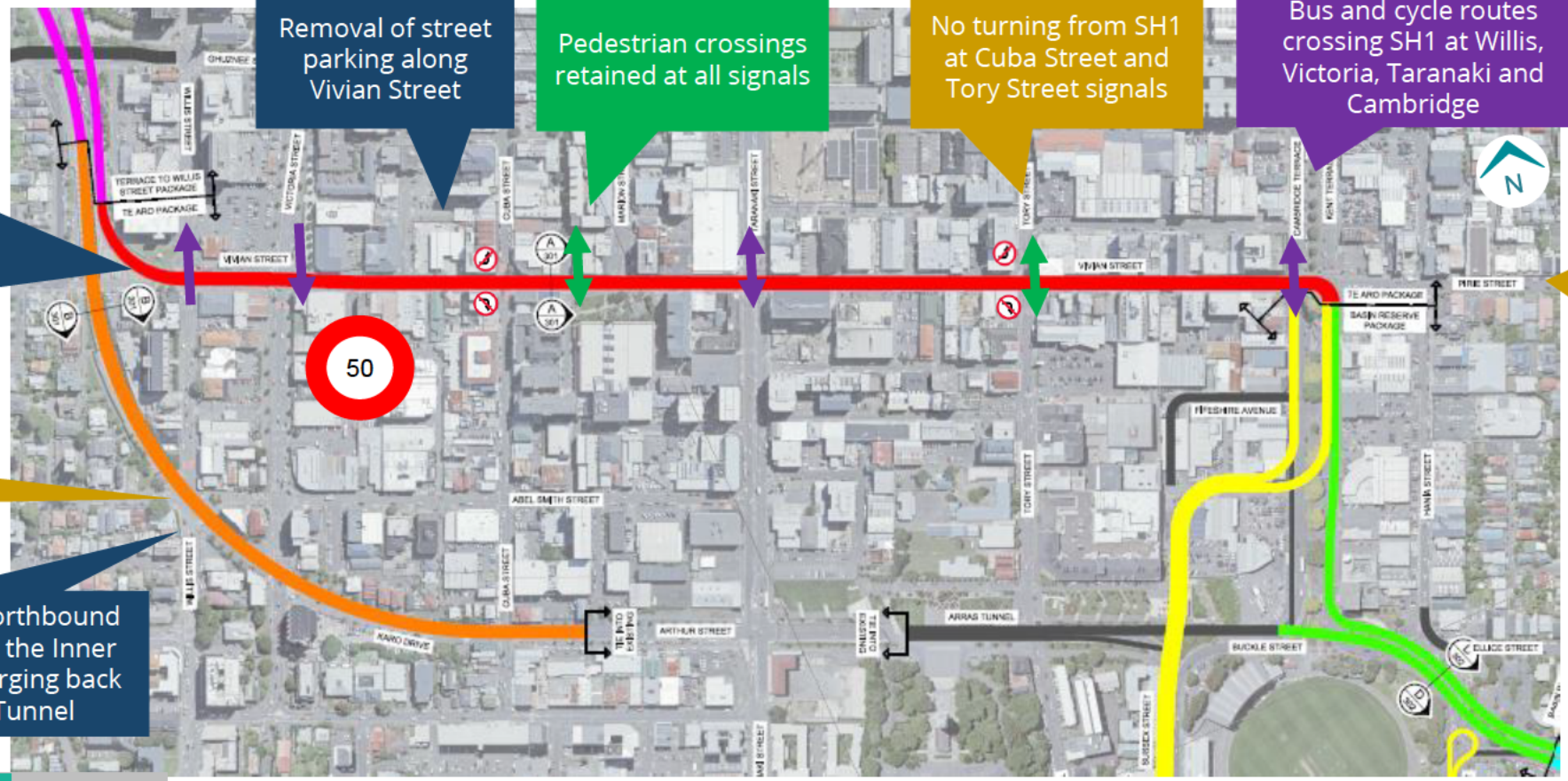
No turning from SH1 at Cuba Street and Tory Street signals

Bus and cycle routes crossing SH1 at Willis, Victoria, Taranaki and Cambridge

No exit to SH1 from Pirie Street (Mt Victoria)

Second cycling of signal phasing on Abel Smith Street approach

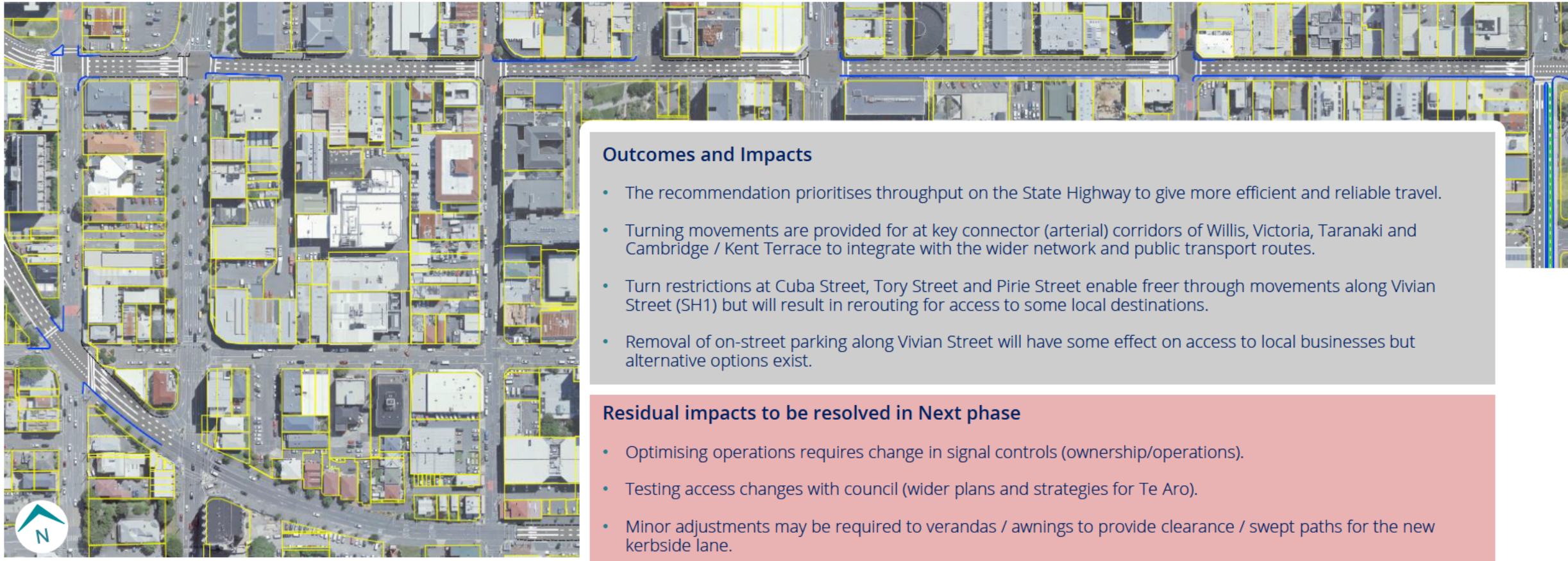
Karo Drive – form 3 lanes northbound across Willis Street and into the Inner City Bypass (ICB) trench, merging back to 2 before the Terrace Tunnel



Te Aro - Vivian Street / Karo Drive (2)

Option Development

- Options to optimise traffic flow with two lanes on Vivian Street were tested but did not provide enough efficiency or reliability improvements.
- Other options were tested that transferred some eastbound traffic onto a contraflow lane on Karo Drive but this introduced conflicts and showed insufficient efficiency improvements to meet the project investment objective.
- The recommended option is to create a third eastbound lane on Vivian Street by removing carparking, with bus, cycle and pedestrian movements facilitated through safe, signalised crossings. Turning movements off Vivian Street/SH1 will be restricted at Cuba and Tory Streets.



Outcomes and Impacts

- The recommendation prioritises throughput on the State Highway to give more efficient and reliable travel.
- Turning movements are provided for at key connector (arterial) corridors of Willis, Victoria, Taranaki and Cambridge / Kent Terrace to integrate with the wider network and public transport routes.
- Turn restrictions at Cuba Street, Tory Street and Pirie Street enable freer through movements along Vivian Street (SH1) but will result in rerouting for access to some local destinations.
- Removal of on-street parking along Vivian Street will have some effect on access to local businesses but alternative options exist.

Residual impacts to be resolved in Next phase

- Optimising operations requires change in signal controls (ownership/operations).
- Testing access changes with council (wider plans and strategies for Te Aro).
- Minor adjustments may be required to verandas / awnings to provide clearance / swept paths for the new kerbside lane.
- Addressing safety concerns around diverted traffic and pedestrian waiting areas.
- Assess impacts of parking removal and turn restrictions.
- Wayfinding (signage) for all transport users for changes to access.

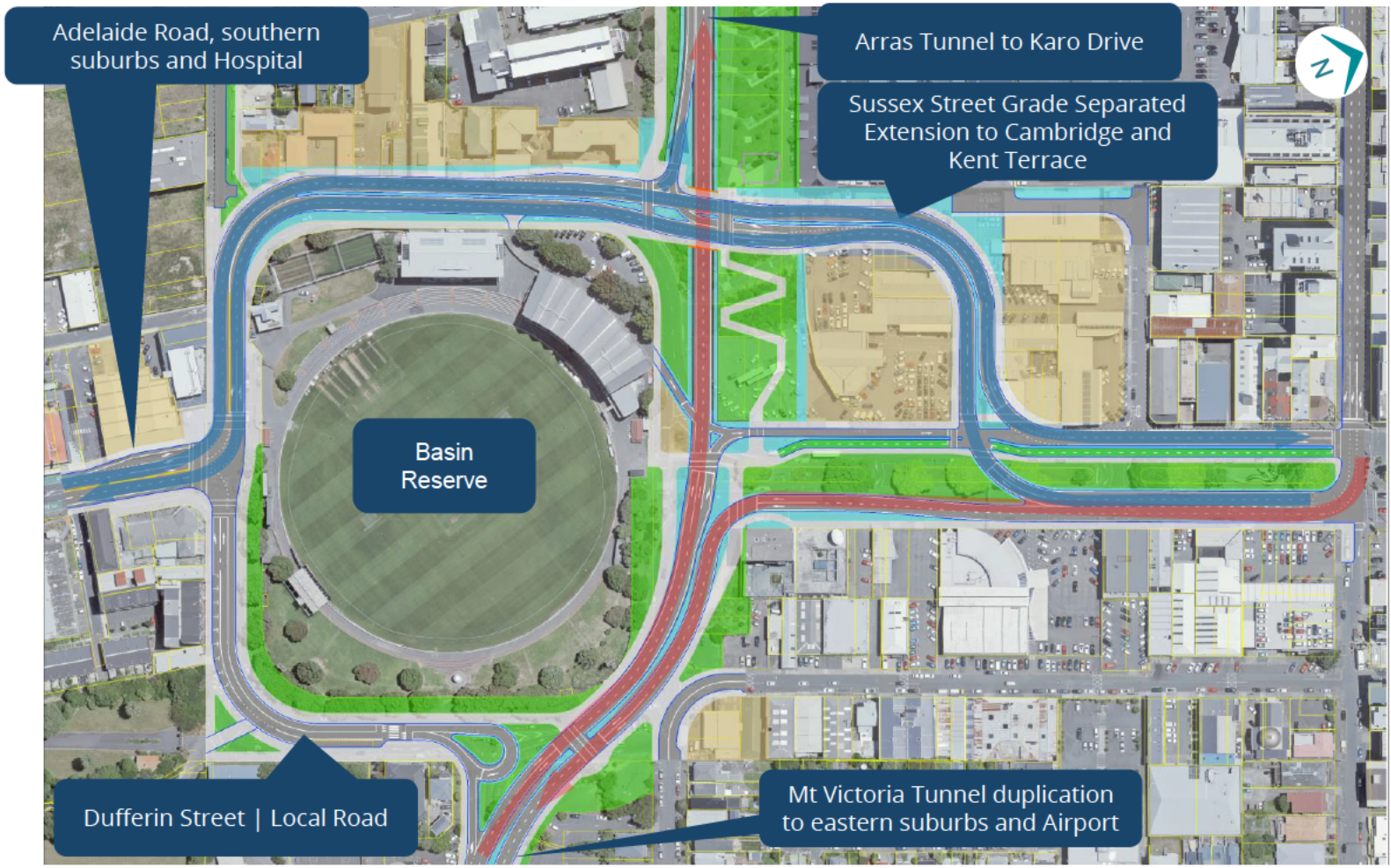
Basin Reserve

Existing Basin Reserve arrangement

- The existing eastbound SH1 moves from Vivian Street onto Kent Terrace and then two lanes merge to one lane going into the Mt Victoria Tunnel at Paterson Street. SH1 westbound exits the one lane Mt Victoria Tunnel and travels clockwise around the Basin Reserve and then turns into the Arras Tunnel and onto Karo Drive.
- SH1 provides for through movements to the eastern suburbs and Wellington International Airport as well as local access and trips to the southern suburbs and Wellington Regional hospital.
- The east-west SH1 movements run into conflict with the general traffic, bus and cycle movements travelling north-south from Adelaide Road (southern suburbs) to Cambridge / Kent Terrace for access to the Central City. These conflicts, side friction and complex traffic signal configurations lead to delays and safety issues.

Alternative Options Considered

- Historically a bridge across the northern side of the Basin Reserve was considered, but ultimately rejected by a Board of Inquiry in 2013.
- Lets Get Wellington Moving (LGWM) investigated and recommended using the topographical elevation of Sussex Street to pass over SH1 traffic. This concept has been retained for the recommended option.
- Options for different heights of the grade separated Sussex Street structure, and how to connect to the Arras Tunnel, were considered.
- The LGWM option recommended shifting the Kent Terrace route (eastbound SH1 traffic) onto Hania Street to enable urban development of the acquired properties. This option has been assessed and discarded to minimise property acquisition and costs, making the most of existing assets on Kent Terrace.
- Other options of a Long Tunnel (from Terrace Tunnel to Kilbirnie) and a Diagonal Tunnel (from Basin Reserve to Kilbirnie) were explored but discarded by the NZTA Board in October 2024 due to poor value for money and impacts on local schools.

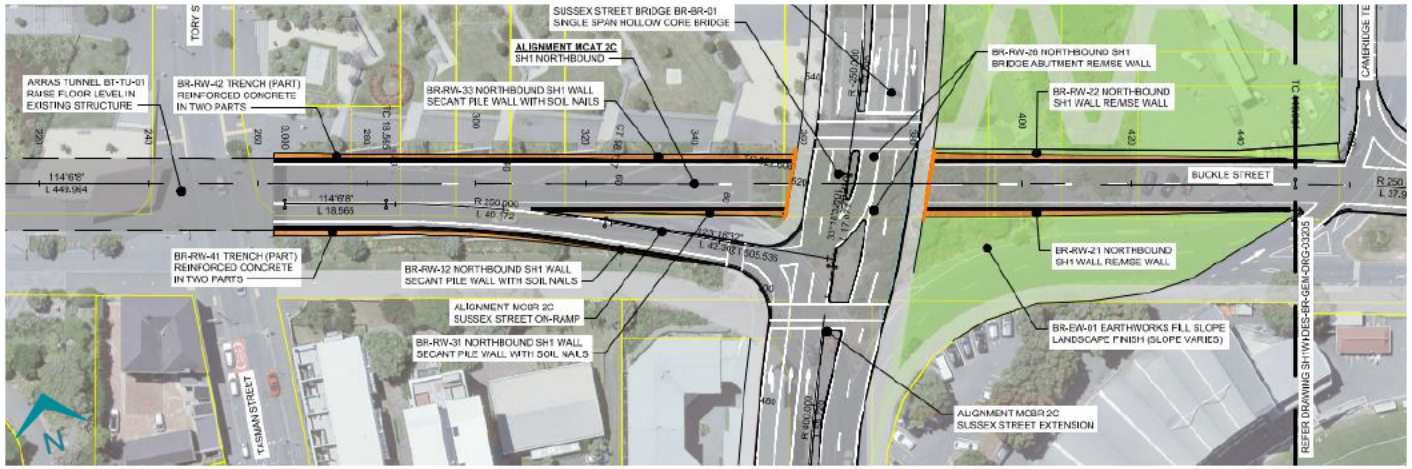


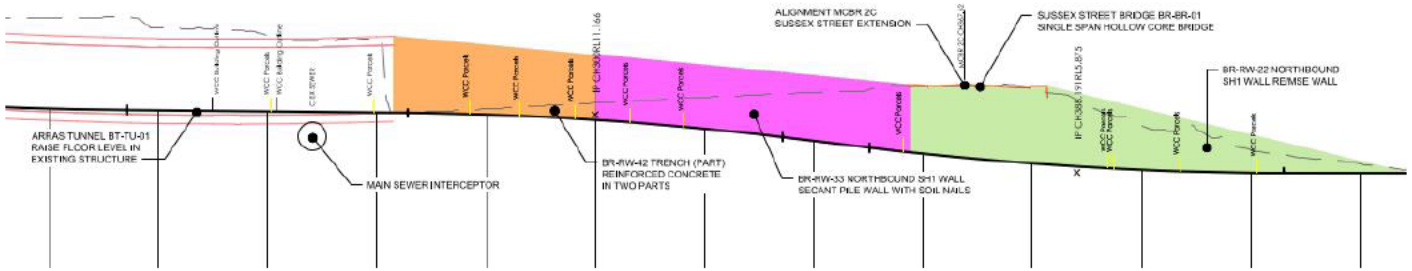
Basin Reserve (2)

Outcomes and Impacts

- The proposed layout prioritises throughput on SH1 and the north-south transport route to give more efficient and reliable travel.
- Turning movements are provided for key movements between SH1 and the north-south transport route (although not all movements are provided for).
- Restricted access at local roads (Hania, Ellice and Rugby Street (west) will improve efficiency and safety on SH1 and the north-south transport route but will result in rerouting for access to some local destinations.
- Removal of on-street parking on Kent / Cambridge Terraces and around most of the Basin gyratory. Parking provided on Dufferin Street to support access to local schools and Government House.
- Changes to public transport routes and stops which will improve efficiency and reliability on the north-south route. Future-proofs for access between Kent / Cambridge Terrace and the duplicated Mt Victoria Tunnels. Changes to access arrangements for school bus routes servicing the schools around / adjacent to the Basin.
- Significant impacts on property along Sussex Street and Kent Terrace which create opportunities for future urban development following completion of the project.
- Environmental and social impacts on surrounding area (particularly heritage, noise, social and landscape).
- Significant potential construction impacts including transport disruption, and environmental and social impacts of detour routes and construction areas.

Basin Reserve (3)





Residual impacts to be resolved in Next phase

- Further refinement of the construction methodology to confirm the construction impacts and mitigations
- Further refinement of natural hazard resilience approach for design of new structures
- Confirm ITS requirements for over-height detection for vehicles entering the Arras Tunnel
- Wayfinding (signage) for all transport users for revised layout and changes to access
- Integration with network utility upgrades in the area
- Testing access changes with Key Stakeholders
- Addressing safety concerns around diverted traffic
- Engage with GWRC / Metlink regarding use of the Mount Victoria Tunnels:
  - Locations of new bus stops through the area
  - Changes required to school bus operations
  - Opportunities for use of the Mt Victoria Tunnel by buses and the implications for travel through the Basin
- Mitigation of parking removal
- Mitigate impacts on bike access between Adelaide Road and Tasman Street
- Further refinement of property requirements
- Confirm final location of Home of Compassion Creche

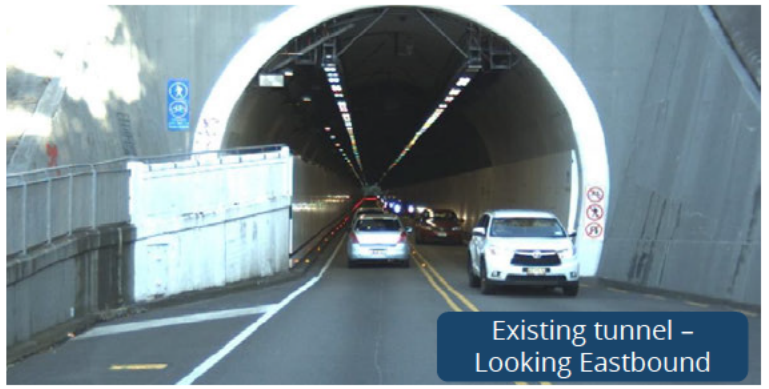
Mount Victoria Tunnel Duplication

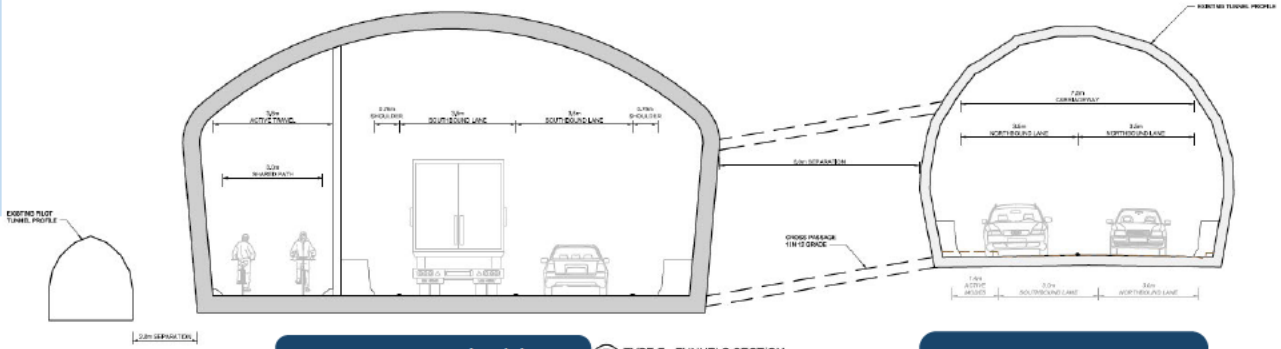
Existing Tunnel

- The existing Mount Victoria Tunnel was constructed in 1931 and is formed of two general traffic lanes and a raised shared path facility.
- Upgrades were undertaken in two stages between 2011 and 2016 to improve operational controls and Fire-Life-Safety (FLS) systems

Alternative Options Considered

- Options to improve capacity through Mt Victoria have been considered multiple times over the past two decades.
  - The Wellington Tunnels Alliance (WTA) prepared a scoping report and scheme assessment in 2011-2012.
  - Let's Get Wellington Moving (LGWM) prepared an Indicative Business Case and began a Detailed Business Case between 2020-23.
  - Long Tunnel investigations in 2024.
- Both WTA and LGWM considered a wide range of parallel and offline tunnel alignment options. Both investigations short-listed parallel tunnel options (north side of existing). The Long Tunnel investigations compared that scheme against a diagonal Mt Victoria Tunnel option and identified a parallel tunnel on the north side as the preferred option leading into the investment case.
- The investment case has considered the following alternatives:
  - Position of the tunnel relative to the existing tunnel (including a stacked tunnel), the current position is closer to the current tunnel than previous options and reduces cost and impacts at the portals.
  - Various widths of active mode facility were considered with a desirable minimum width facility currently proposed.





New tunnel with shared use path

Existing tunnel wider traffic lanes

Mount Victoria Tunnel Duplication (2)

Section of Paterson Street relocated further north to retain local property access.

New tunnel western portal at a similar elevation to the existing tunnel

New tunnel control building to control both tunnels.

620m duplicate tunnel providing two lanes for traffic travelling towards the airport and eastern suburbs.

Existing pedestrian and cycle path will be removed

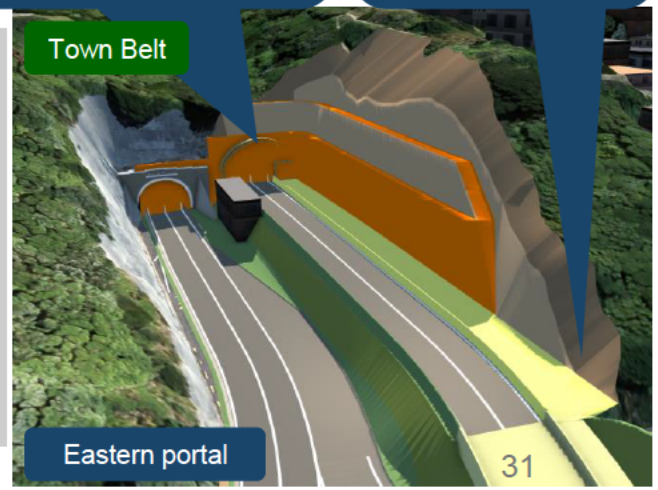
Existing tunnel will provide two, wider lanes for traffic travelling towards the city (northbound).

Cross-passage connections between the old tunnel and new improving Fire Life Safety

Existing tunnel improvements to FLS, ventilation and operational controls

New tunnel eastern portal at will be higher than the existing tunnel portal to provide clearance for a grade separated connection onto SH1 from Taurima Street

New 3.6m wide shared pedestrian and cycle path on the northern side of the new tunnel



Residual impacts to be resolved in Next phase

- Level of retrofit (ventilation and FLS) in existing tunnel
- Need for independent water supply and detention for tunnel deluge systems
- Active mode provision during construction of the tunnel duplication
- Confirm ITS requirements for overheight detection for vehicles entering the Tunnels
- Impacts on heritage buildings and mitigation options

Outcomes and impacts

- The duplicated tunnel will remove a significant traffic bottleneck along SH1 and will unlock some supressed active mode travel between Hataitai and the city.
- The removal of the bottleneck provides an opportunity for public transport to use the duplicated tunnels as an alternative to the one-lane Hataitai bus tunnel.
- The western portal has an impact on property on Paterson Street between Brougham and Austin Streets. Heritage buildings along Paterson Street will be impacted and mitigation will be determined in the next phase.
- The eastern portal has an impact on the Town Belt and will require removal of Hataitai Kindergarten.

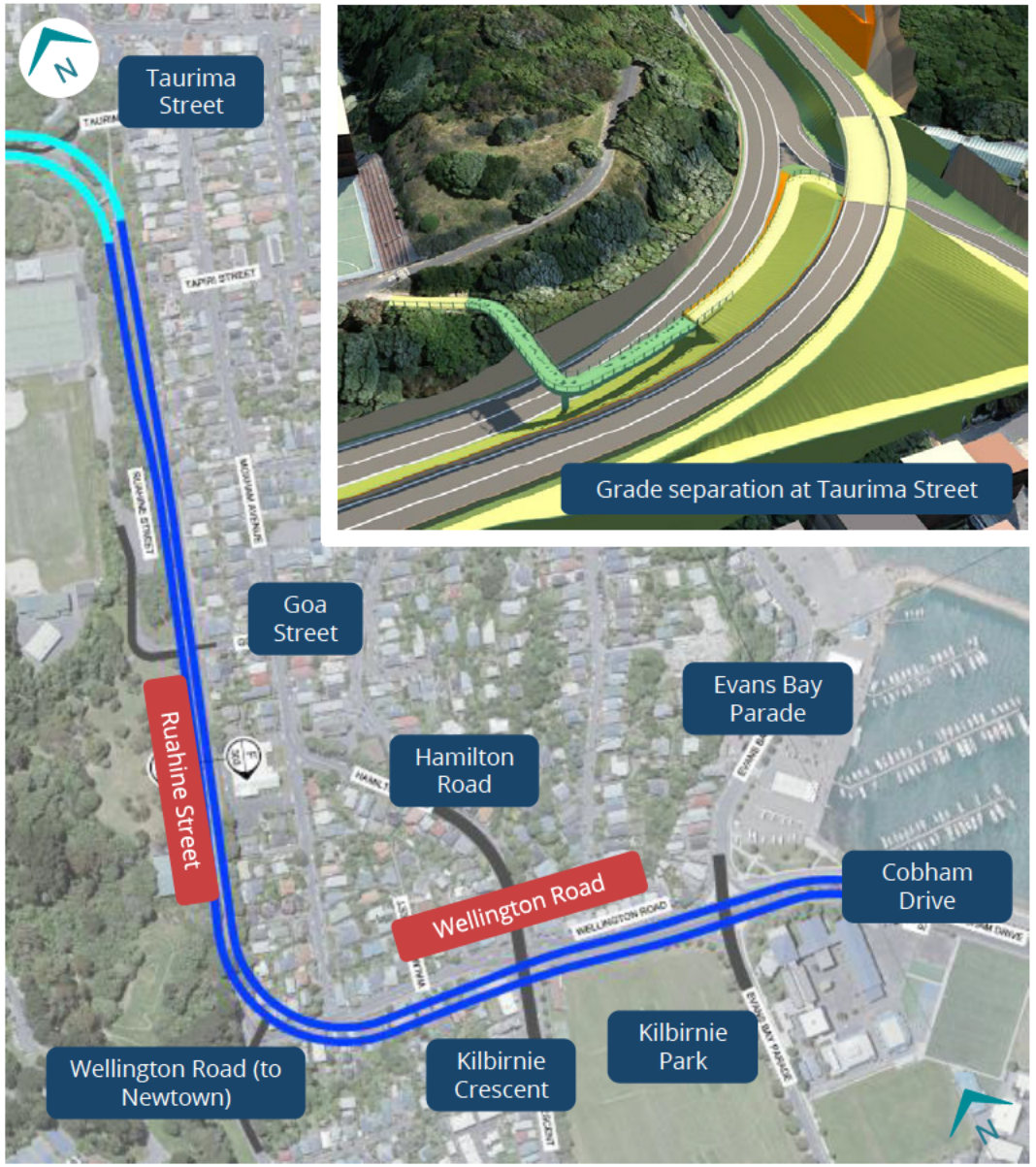
Eastern Roads – Ruahine Street / Wellington Road

Existing Ruahine Street / Wellington Road

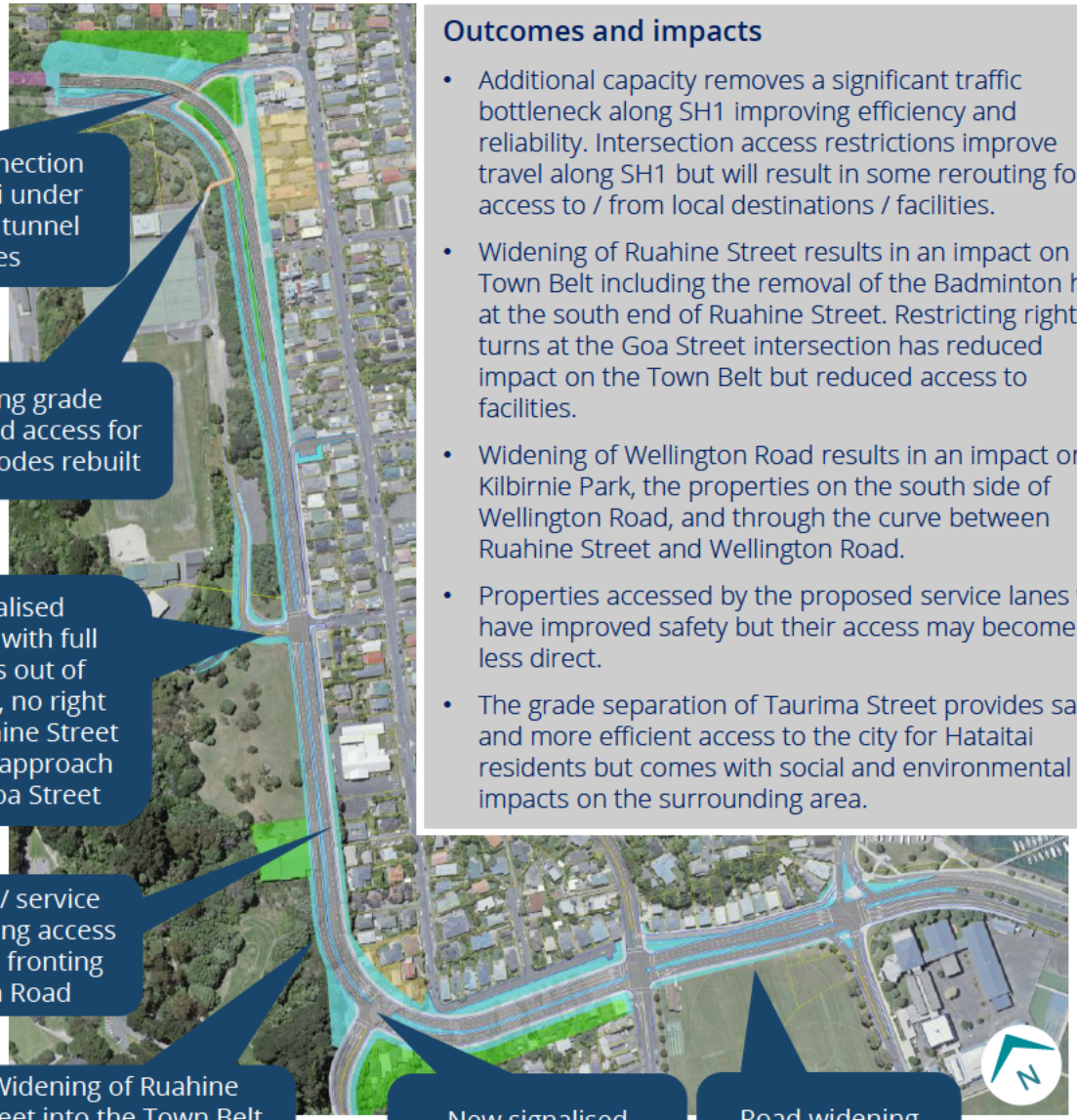
- Ruahine Street (SH1) currently has one traffic lane in each direction and connects Mt Victoria Tunnel with Wellington Road. Intersections provide access to the suburb of Hataitai, Hataitai Park recreational facilities and Wellington Road which connects through Newtown. The west side of Ruahine Street borders Hataitai Park and the Wellington Town Belt.
- Wellington Road (SH1) transitions from one-lane in each direction on Ruahine Street through to a median separated section on Cobham Drive with two-lanes in each direction and no direct property access. Intersections provide access to Hataitai, Kilbirnie and the western side of Evans Bay.
- The intersection of Hamilton Road / Kilbirnie Crescent with Wellington Road (SH1) is where the eastern public transport routes cross State Highway 1. The intersection of Evans Bay Parade and Wellington Road (SH1) is a key crossing point for active modes between Kilbirnie and the 'round the Bays' route to the city along Evans Bay Parade.

Alternative Options Considered

- Options to improve capacity between Mt Victoria Tunnel and Cobham Drive have been considered multiple times over the past two decades.
- Both WTA and LGWM considered a range of widening and connectivity options. The WTA's (and subsequent preliminary design by others) preferred option was for signalised intersections at Goa / Ruahine Streets and Wellington Road / Ruahine Street, combined with additional lanes on SH1 to provide sufficient throughput. LGWM options included the addition of public transport priority lanes along the corridor and considered the trade-off between property and Town Belt impacts.
- Long Tunnel investigations removed the public transport priority lanes and identified the potential to improve the efficient operation of SH1. An option with grade separation at Taurima Street, signalised intersections at Goa / Ruahine Streets and Wellington Road / Ruahine Street was identified as the preferred option leading into the investment case. This option reduced the corridor width and assumed widening into the Town Belt given the limited additional width required.
- The investment case has considered alternatives around connectivity to Hataitai (with and without the grade separation of Taurima Street and alternative at-grade access at other intersections). The recommended option best meets the investment objectives but it is recognised that impacts on access warrant further investigation in the next phase of work.



Eastern Roads – Ruahine Street / Wellington Road (2)

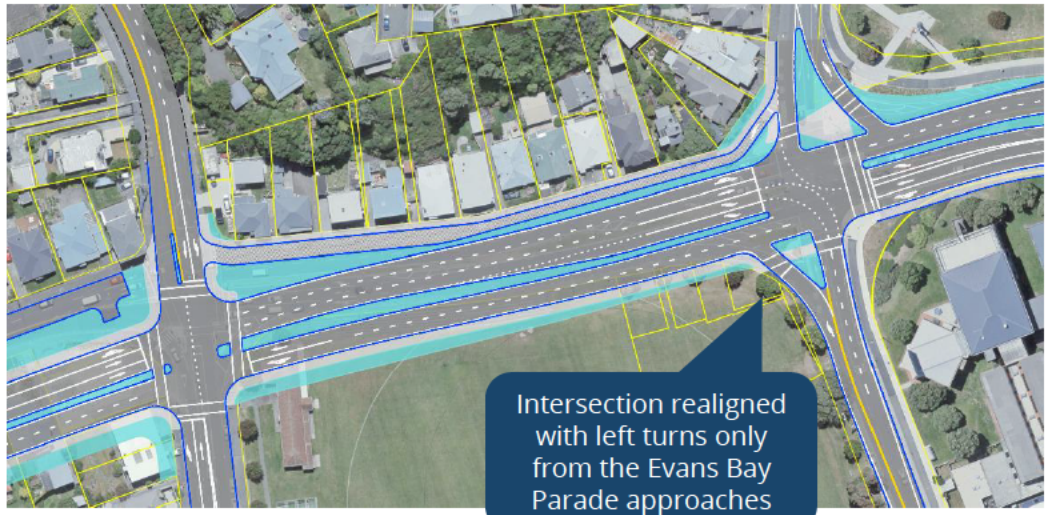


Outcomes and impacts

- Additional capacity removes a significant traffic bottleneck along SH1 improving efficiency and reliability. Intersection access restrictions improve travel along SH1 but will result in some rerouting for access to / from local destinations / facilities.
- Widening of Ruahine Street results in an impact on Town Belt including the removal of the Badminton hall at the south end of Ruahine Street. Restricting right turns at the Goa Street intersection has reduced impact on the Town Belt but reduced access to facilities.
- Widening of Wellington Road results in an impact on Kilbirnie Park, the properties on the south side of Wellington Road, and through the curve between Ruahine Street and Wellington Road.
- Properties accessed by the proposed service lanes will have improved safety but their access may become less direct.
- The grade separation of Taurima Street provides safer and more efficient access to the city for Hataitai residents but comes with social and environmental impacts on the surrounding area.

Residual impacts to be resolved in Next phase

- Access to Hataitai, Kilbirnie and sports facilities have some effects that will be reviewed and refined in the next phase. This will include testing with key stakeholders and addressing safety concerns.
- Wayfinding (signage) for all transport users for revised layout and changes to access.
- Confirm stormwater management solution for Ruahine Street and Wellington Road.
- Identify mitigation for impact on Town Belt and Kilbirnie Park.
- Integration with network utility upgrades in the area.
- Engage with GWRC / Metlink regarding opportunities for bus routing changes.
- Assess impacts of parking removal.
- Further refinement of property requirements.
- Consider impacts on Badminton Hall and mitigation options.

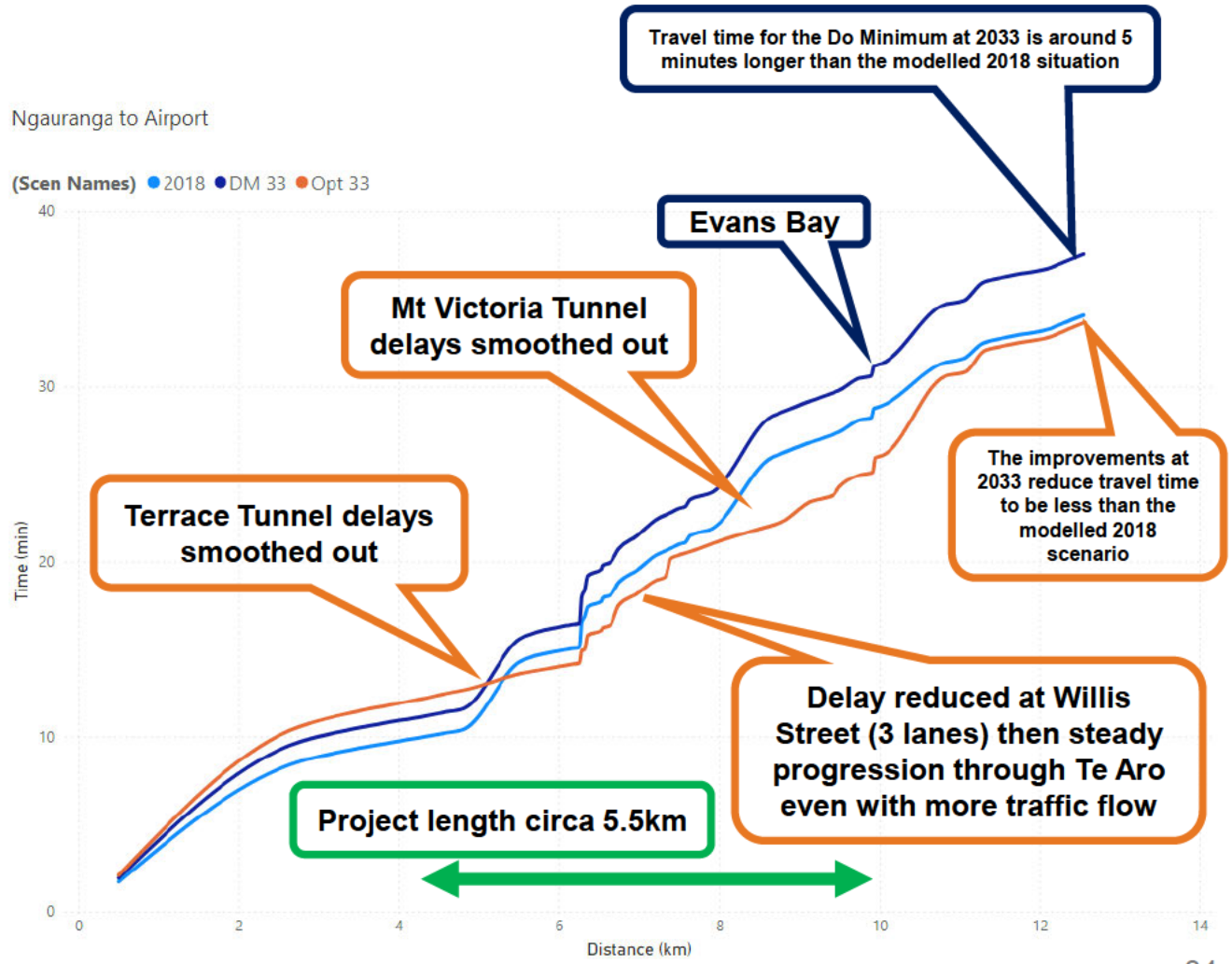


Refer to Appendix H – Transport Outcomes

Unblocking the bottlenecks

Removing the 2 to 1 lane capacity constraints at the tunnels will improve efficiency and reliability along SH1

- Transport analysis using the regional transport model estimates average peak travel time savings, while peak times can be around 20% worse
- Terrace Tunnel and Mt Victoria Tunnel duplications provides two free-flowing lanes in each direction moving from 100% traffic saturation spread over 12 hours to around 60% saturation
- Additional capacity enables traffic to enter the city smoothly and enables growth
- The average weekday morning peak travel times between Ngauranga and the Airport will improve by 4-5 minutes and up to 7-8 minutes within the project area between the Terrace Tunnel and Evans Bay Parade and up to 10 minutes during peaks.
- Travel time variability is expected to reduce by up to 40%

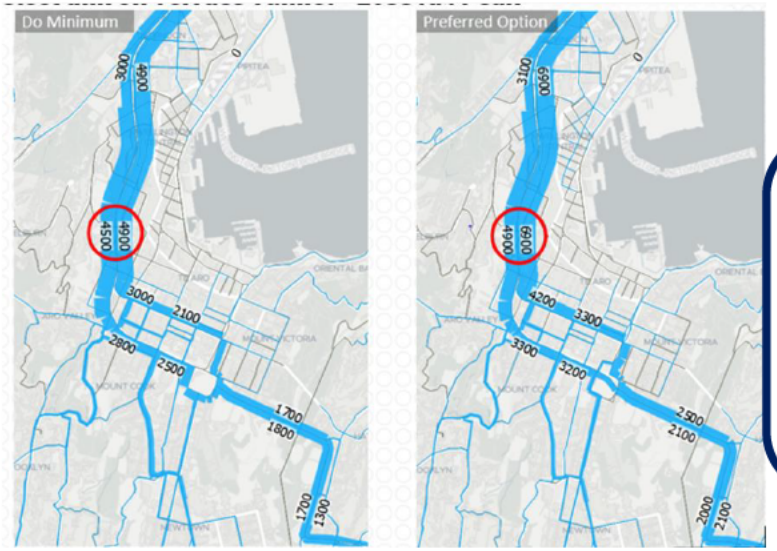


Unlocking productivity and growth

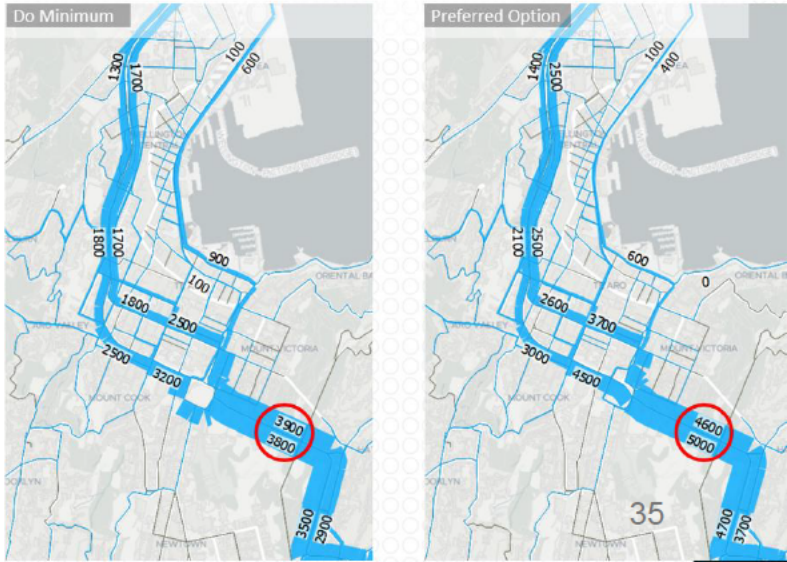
A more efficient and reliable state highway enables more trips to be made

- The state highway improvements are estimated to stimulate around 2000 additional trips per day being made across Wellington City
- Around 40% more people use the Terrace Tunnel and 20% more use Mt Victoria during the morning peak

- The improved SH increases the access to the CBD from the eastern suburbs and airport and generates more than 800 additional trips per day
- Around 400 additional trips per day can be made to the hospital area (Newtown)

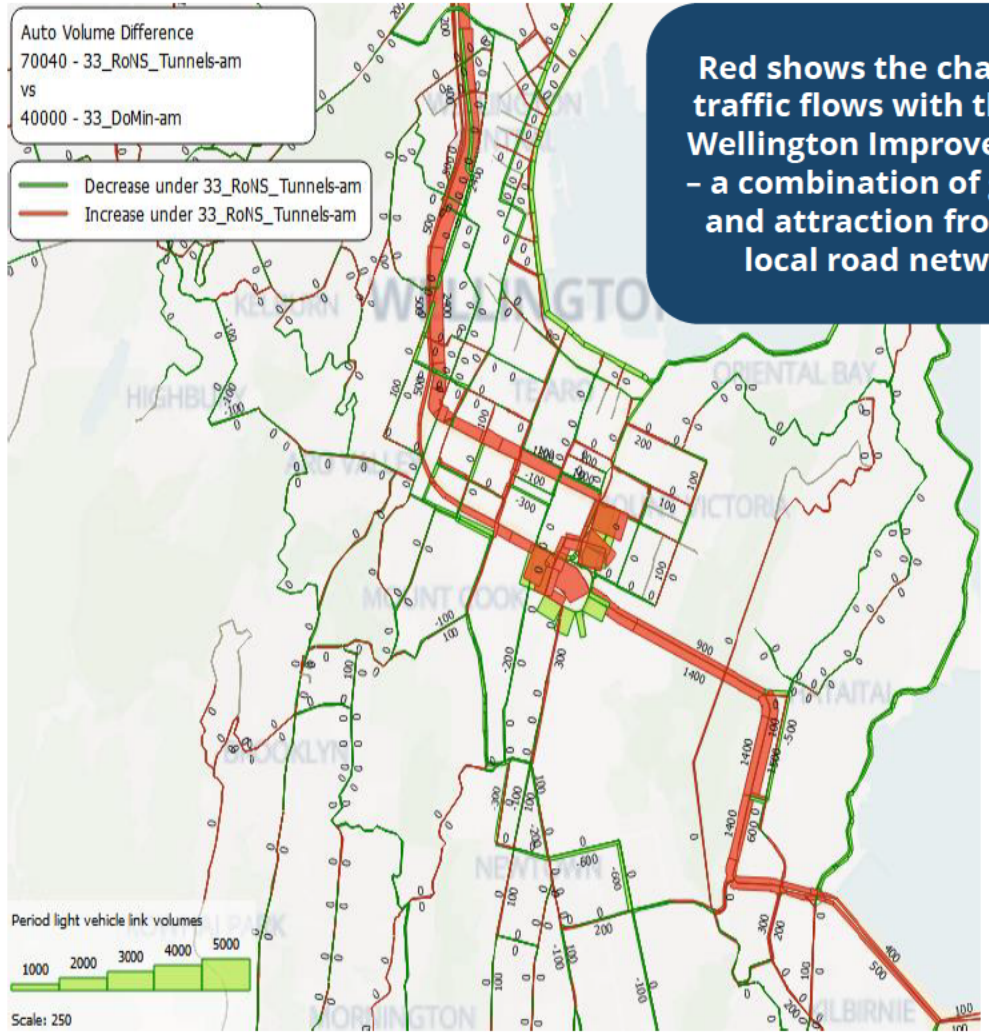


Select link analysis show where people go during the morning peak (3 hour volume at 2033)



Improved network operational resilience

- Duplicating the Tunnels improves operational resilience with reduced traffic saturation (volume to capacity from 1.0 to below 0.7)
- Enabling more throughput at the Terrace Tunnel and Mt Victoria enables growth and increases the traffic flow through Te Aro by around 50%
- The 3rd lane on Vivian Street enables more throughput with traffic signal optimisation but the attraction of more traffic results in a volume to capacity of around 0.7 where some congestion can still be expected at busy times
- Overall the network performance will be improved but the at-grade, signalised form of the SH through the urban area will result in periodic delays if not managed optimally



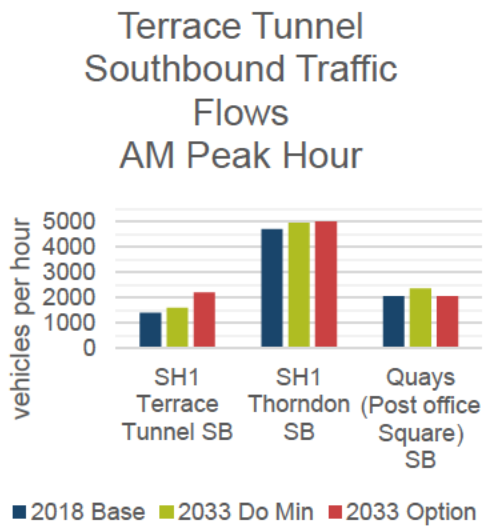
Red shows the change in traffic flows with the SH1 Wellington Improvements – a combination of growth and attraction from the local road network

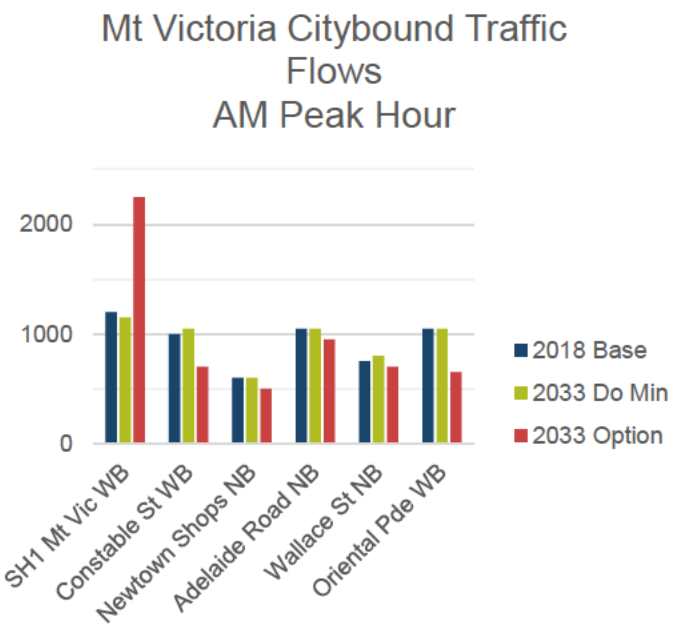
All elements of the project are needed to unlock the benefits

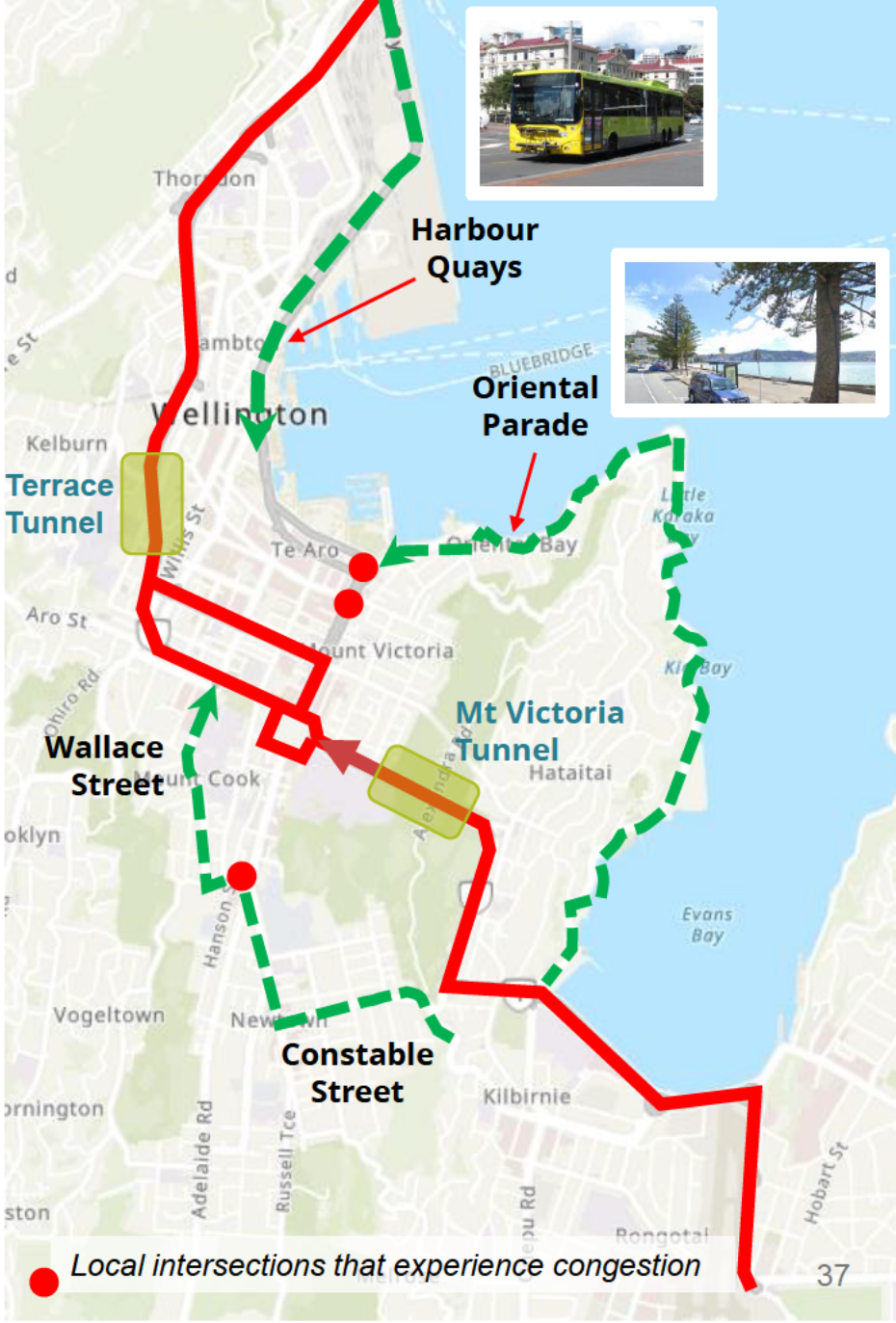
- Unblocking the Tunnel bottlenecks addresses the primary problem and delivers the objective of enabling growth through the Inner City
- To match network capacity and maintain efficiency and resilience through the Inner City the Basin Reserve, Karo Drive and Vivian Street improvements are needed.

More people use the state highway and less traffic on local road

- The Wellington transport system is complex with critical inter-dependency between the northern SH and Harbour Quays arterial route
- Improving efficiency on SH1 encourages people to use of the Tunnels in preference to using other local roads (shown in green)
- A freer flowing Terrace Tunnel results in the Harbour Quays having a reduction of around 300 vehicles per hour (20%) in the morning peak hour that enables improved bus travel and local access
- More use of the Mt Victoria Tunnel results in less traffic on Oriental Parade that has a high space amenity and leads into the heavily congested Cable Street, Kent Terrace and Wakefield Street area.
- Similarly there is expected to be less traffic across Constable Street through Newtown where Riddiford Street and Adelaide Road already experience high levels of congestion.

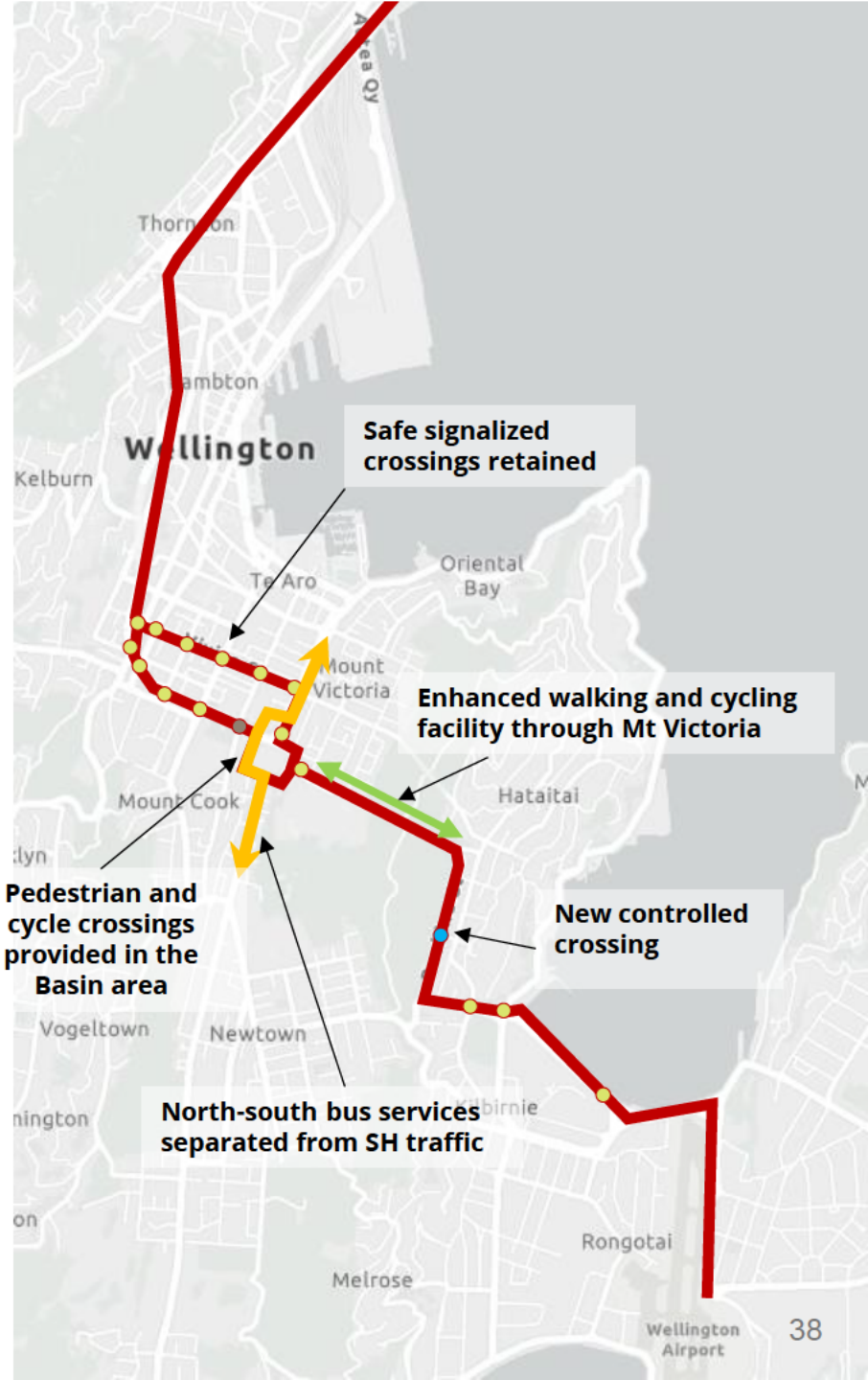






Other local transport outcomes and opportunities

- All signal controlled crossings of the state highway are retained for safe access for pedestrians and cyclists
- Full turning movements are provided at key urban connector routes and public transport corridors – Willis, Victoria, Taranaki, Cambridge, Kent and Adelaide
- A safe system assessment shows a modest overall improvement but some access and turning movement restrictions may create some localised risks that need to be assessed in the next phase.
- Bus services operating between the central city and southern suburbs via the Basin are separated from the state highway but signalised pedestrian crossings along the route mean there is minimal travel time improvement
- People travelling through new duplicated Mt Victoria Tunnel on foot or by cycle are provided with an improved amenity space (3.6m compared with 1.4m currently)
- Additional east-west capacity through Mt Victoria provides an opportunity for use of the state highway by bus services (such as AX and #2) to relieve pressure on the Hataitai single lane bus tunnel and enable ongoing growth in bus services



Economic Analysis

Refer to Appendix I – Economic Analysis Paper

The project monetised benefits

Travel time benefits $1,150m NPV | $34m in 2033
As calculated from travel time along state highway and modelled study area for Car, HCV and PT and various trip purposes

Travel time reliability $556m NPV | $16m in 2033
As calculated from changes in variance of travel time

Active Travel $28m NPV | $1m in 2033
From increased use of walking (accessing PT and carparks) and cycling (up to 210 new users in Mt Victoria Tunnel at 2033)

Vehicle Operating Cost -$82m NPV | -$3m in 2033
Based on addition vehicle kilometres travelled on various road types (slightly worse due to enabled growth in vehicle km travelled)

Emissions and CO2 -$33m NPV | -$3m in 2033
Based on fuel use of vehicles

Safety: -$6m NPV | $400k in 2033
Based on typical crash rates and modelled vehicle exposure rates (slightly worse in long term due to growth in vehicle km travelled)

Wider Economic Benefits $1,286m NPV | $26m in 2033
Agglomeration benefits where firms collocate areas with improved access (eg CBD and airport).

Economics methodology

The Wellington Transport Models have been used to compare the key transport metrics of traffic volumes, delays and vehicle kilometers travelled for the future Do Minimum and Option Improvements as inputs into the Economic evaluation of travel time, reliability, crash rates and emissions. The specific methodology for economics can be seen in the Appendix I. Other non-monetised benefits are reported in the Appraisal Summary Table: Appendix J.

Project Costs and Benefits

	Undiscounted (60yr)	NPV (60 year / 2% - 1.5% DR)
Benefits	$5,263m	$1,613m / $2,899m with WEBS
s 9(2)(b)(ii)		
Total Cost	$2,955m	$2,477m

Benefit cost ratio

The project base BCR is based on P50 costs and 2053 land use assumptions, using a 60-year evaluation period at a 2% - 1.5% discount rate (Based on MCBM May 2025).

	Core Scenario BCR (P50)	Inc. Wider Economic Benefits BCR (P50)
Project nat. BCR (untolled)	0.7	**1.2**
Project nat. BCR (recommended toll scenario)	0.6*	1.0*
Project govt. BCR (recommended toll scenario)	0.3*	1.0*

*Modelling approach understates additional congestion on alternative routes

Sensitivity testing of a range of scenarios indicates the BCR range is **0.5 - 1.8**. (see Alternative futures slide)

Delivering value for money

The project design development has applied a "value for money" lens to reduce costs. One key philosophy has been to utilise existing assets as described in the Project scope description slide summaries. The investment case analysis shows improved journey times, reliability, and reduced congestion on State Highway 1, providing immediate transport benefits. The integrated transport system will support regional economic growth and productivity, offering ongoing regional and national economic benefits and overall value for money.

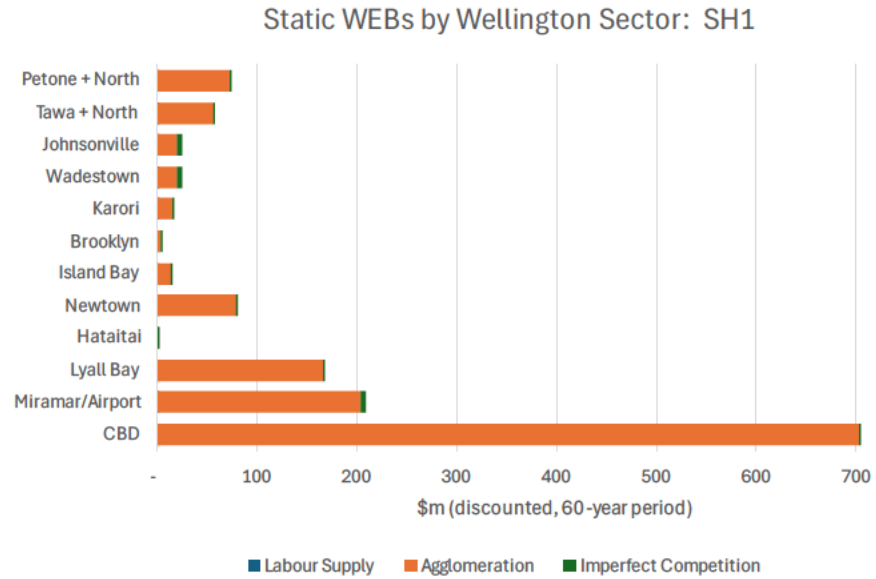
Wider Economic Benefits (WEBs)

Refer sub Appendix I-1
Wider Economic Benefits Analysis

The SH1Wellington Improvements project will have a transformational effect on accessibility within the Wellington Region. For this reason, the Wider Economic Benefits (WEBs) of the investment have been investigated. Both Static and Dynamic WEBs were explored for SH1 Wellington Improvements and P2G projects, in isolation and together to understand regional effects.

SH1WI economic productivity benefits

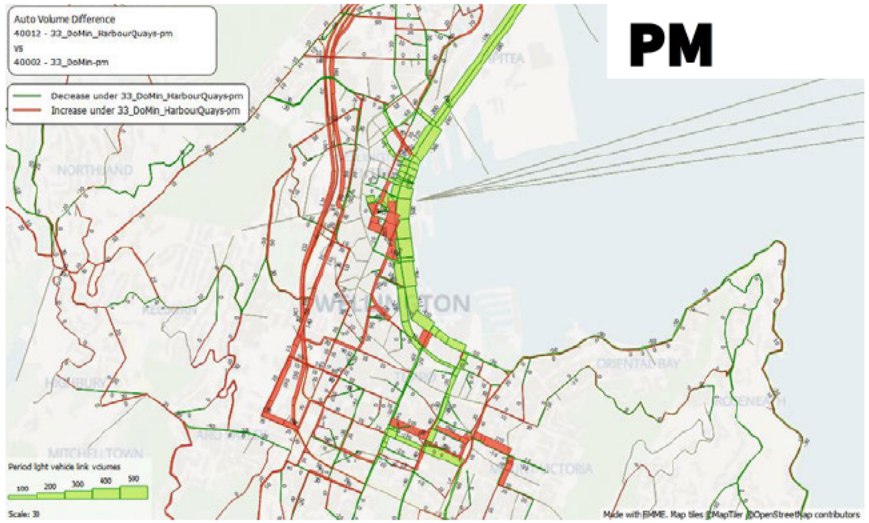
- Allowing individuals and firms to move around more easily in a major urban centre like the Wellington City Centre will enable more sharing, matching and knowledge exchanges that will positively impact productivity. In this instance, it is assumed that individuals and firms do not physically relocate (land use remains fixed).
- The ability for individuals and firms to move around is dependent on the transport system. The SH1 Wellington Improvements project will allow them to move around Wellington more easily, lowering transaction costs and facilitating greater interactions to enhance productivity.
- The benefits of this improved productivity is not captured in traditional direct benefits, therefore Static WEBs (fixed land use) have been evaluated in accordance with NZTA's processes as part of the project's economic appraisal.
- Approximately 98% of the WEBs are associated with agglomeration productivity, representing considerable gains in connectivity between local industries over the lifetime of the project.
- Agglomeration benefits are concentrated in the northern part of the Wellington CBD, as well as south-eastern regions close to the Airport.
- Static WEBs are included in the Economic Appraisal and BCR.



- The Project Team also evaluated the 'size of prize' of Dynamic WEBs in accordance with NZTA's guidelines.
- Land use modelling was undertaken to determine the impact of the SH1WI Project on people's decision to relocate to more economically productive parts of the region, in turn generating further economic benefits and improving utilisation of the project.
- This work showed that the land use response was not significant for SH1WI, particularly in the context of P2G. Therefore,
- Dynamic WEBs have not been included as part of the Economic Appraisal for SH1 Wellington Improvements.

Alternative futures transport outcomes

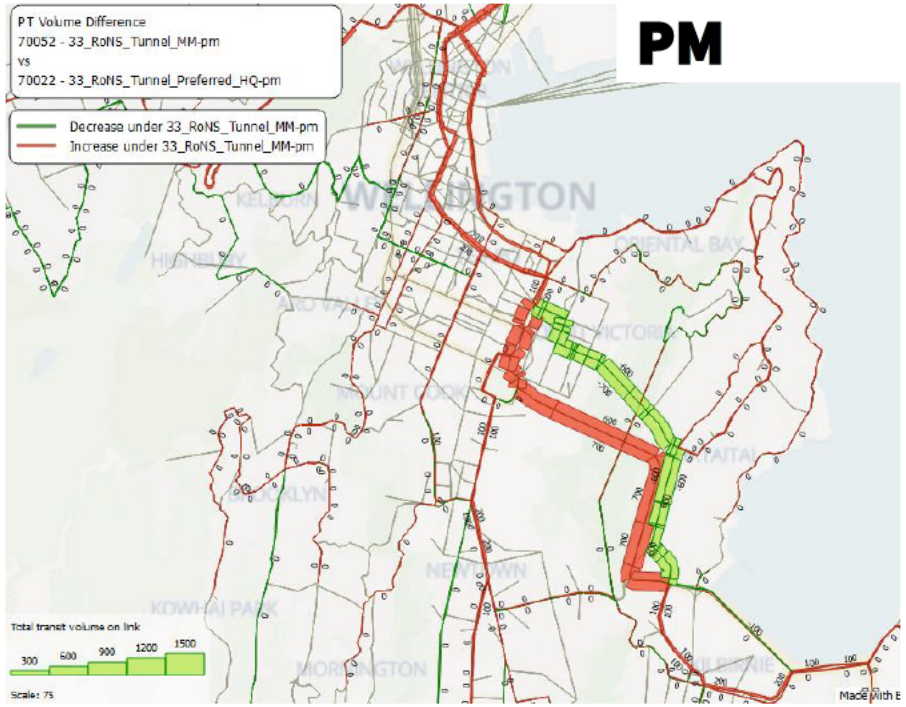
The core analysis and economics are based on the SH1 improvements alone compared to the current transport network. We have also tested the WCC proposed network change on the Harbour Quays that reconfigures two lanes to be for bus priority, and a "multi-modal" package that takes the opportunity of rerouting some bus services (AX and #2 bus) to use the improved state highway corridor.



PM

The reduced vehicle capacity on the Quays increases delays and people will either shift to the SH or other local roads.
This results in a additional 1 to 2 minutes of travel time savings along SH1

If the other transport opportunities offered by the SH1 improvements are taken up then travel time savings of more than 10 minute could be realised and additional transport economic benefits



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Rerouting buses away from the increasing congested Hataitai single lane bus tunnel enabling growth in public transport and a more efficient transport system overall.

Refer to Appendix I – Economic Analysis Paper

Alternative futures economic sensitivity

The ability to forecast into the future creates increasing uncertainty the longer the assessment period being considered. The SH1 Wellington Improvements project has assessed several alternative future scenarios and sensitivity tests to understand what these could mean for the project, shown simplistically here.

Scenario/Sensitivity	Implication (without WEBs)	Implication (with WEBs)
Evaluation Period – 100/60 years	BCR of 0.9 / **0.7**	BCR of 1.8 / **1.2**
Benefits Realisation – Slower Growth/Faster Growth	BCR of 0.5 / 0.7	BCR of 1.0 / 1.2
Cost Uncertainty – Low Cost / P50 / P95 (longer construction duration)	BCR of 0.7 / **0.7** / 0.5	BCR of 1.3 / **1.2** / 0.9
Ongoing Travel Time Benefit Growth after 2053 – 1% growth p.a. after 2053	BCR of 0.7	BCR of 1.2
Congestion Assessment Adjustment – Factor strategic regional model outputs to account for possible under-estimation of congestion relief (High / Low)	BCR of 0.9 / 0.5	BCR of 1.4 / 1.0
Alternative Growth – Sense Partners Scenario	BCR of 0.7	BCR of 1.2
Lower TT reliability benefit (from 30% to 10%)	BCR of 0.5	BCR of 1.0
Multi-Modal Improvements (including Harbour Quays) – Enabled opportunity for others to deliver public transport improvements	Opportunity for additional $341m of NPV benefits	
Interface with Petone to Grenada (P2G) RoNS project – transport modelling of the two Wellington RONS projects together	Combined BCR of 1.2 or 2.0 with WEBS. The combination of both projects creates Wider Economic Benefits slightly greater than the sum of their parts (roughly 1%).	

The core BCR is 0.7 to 1.2 with WEBs. The sensitivity tests indicates the BCR range is 0.5 - 1.8

RETURN ON INVESTMENT

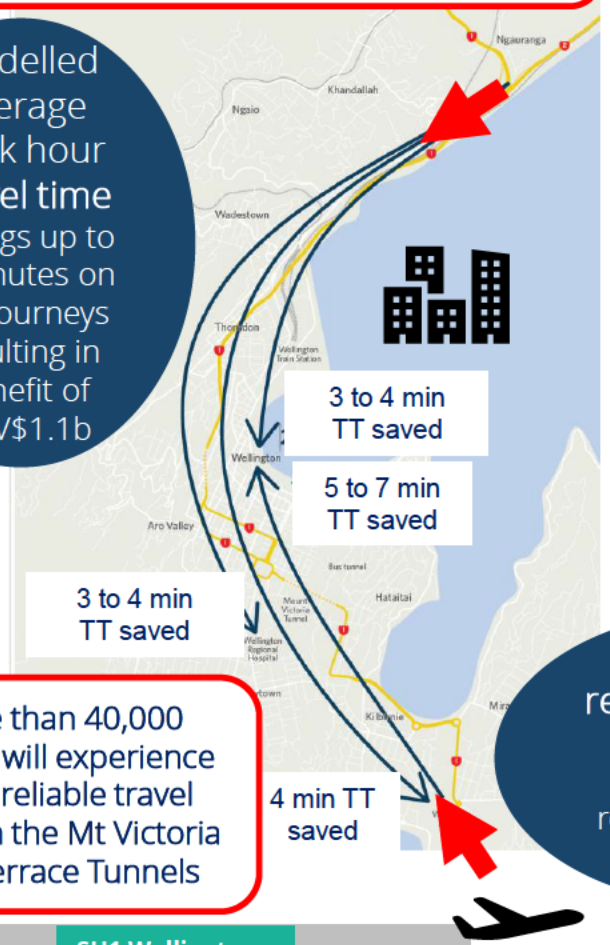
To provide more efficient and reliable access on State Highway 1 from north of the Terrace Tunnel to Wellington Airport and Wellington Hospital to support regional economic growth

NPV Benefit	NPV Cost	BCR
$1.6b to $2.9b	$2.5b	0.7 – 1.2
GPS alignment - Very High	**Schedule – High**	**Efficiency – Low**

Refer to Appendix J – Appraisal Summary Table

Unblocking the bottlenecks unlocks growth - 2,000 additional trips to be made including 800 more to the central city

Modelled average peak hour **Travel time** savings up to 7 minutes on key journeys resulting in benefit of NPV$1.1b



More than 40,000 people will experience more reliable travel through the Mt Victoria and Terrace Tunnels

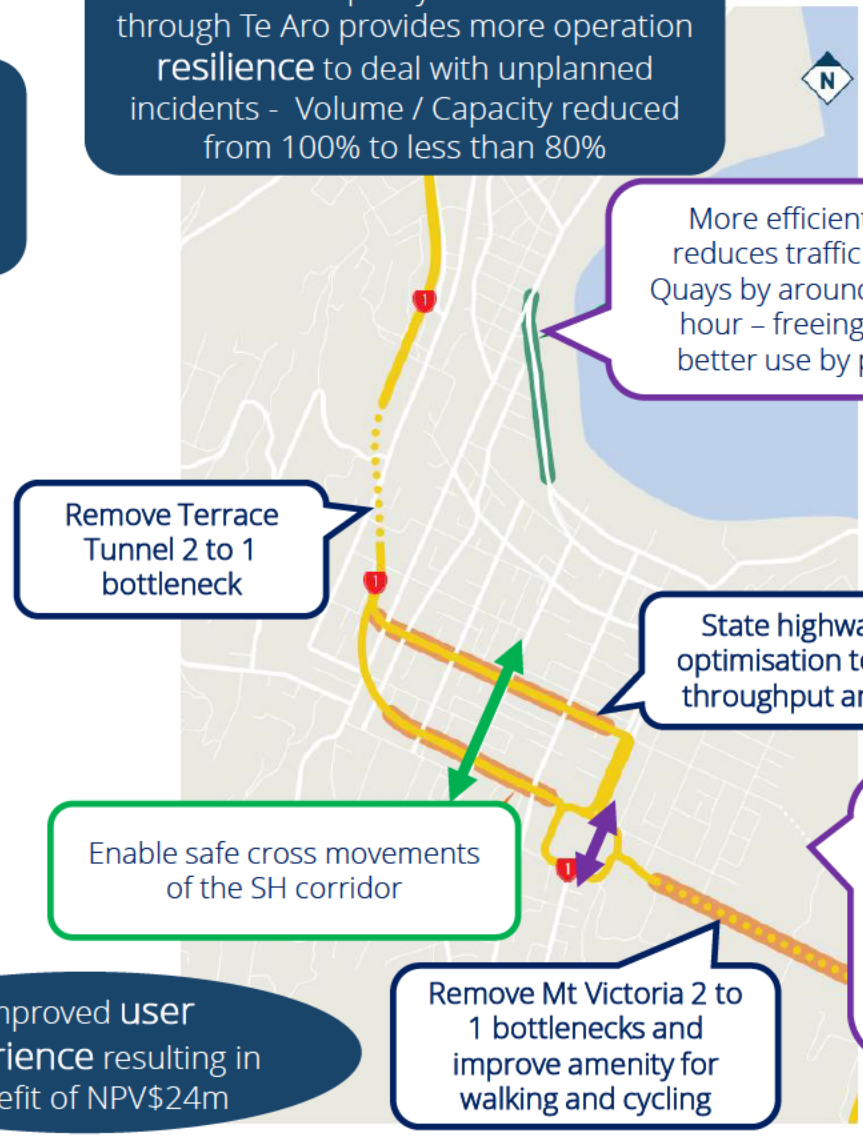
Improved access to the Central City enables business agglomeration resulting in **wider economic benefit** of up to NPV$1.3b

Peak travel time savings will be up to 10 minutes (~ 20% higher than averages)

Travel time **reliability** improved by up to an additional 40% resulting in benefit NPV$541m

Improved **user experience** resulting in benefit of NPV$24m

Increased capacity in tunnels and through Te Aro provides more operation **resilience** to deal with unplanned incidents - Volume / Capacity reduced from 100% to less than 80%



More efficient state highway reduces traffic on the Harbour Quays by around 300 vehicles per hour – freeing up capacity for better use by public transport

Remove Terrace Tunnel 2 to 1 bottleneck

State highway signal optimisation to improve throughput and access

Enable safe cross movements of the SH corridor

Opportunity for bus services to use the SH and prolong capacity of the Hataitai single lane bus tunnel for PT growth

Remove Mt Victoria 2 to 1 bottlenecks and improve amenity for walking and cycling

Tolling Assessment for the SH1 Wellington Improvements project

Refer to Appendix K – Tolling Assessment

s 9(2)(ba)(ii), s 9(2)(f)(iv)

Tolling Assessment (2)

Refer to Appendix K – Tolling Assessment

s 9(2)(ba)(ii), s 9(2)(f)(iv)

Alternative Road Pricing

Refer to Appendix K – Tolling Assessment

s 9(2)(ba)(ii), s 9(2)(f)(iv)

Project cost estimate and cashflow

Refer to Appendix L – Cost Estimate Report

The implementation estimate range is forecast between $2.9B (P50) and $3.8B (P95). s 9(2)(b)(ii)

The estimate assumptions and exclusions are provided in the Cost Estimate Report.

Cost Estimate has been peer reviewed by RLB.

	Project Costs	
	P50 ($M)	P95 ($M)
Property cost	s 9(2)(b)(ii)	
Pre-Implementation fees		
Implementation fees		
Physical works		
Base estimate		
Contingency risk s		
Sub total (P50)		
Funding risk s		
Sub total (P95)		
Escalation		
TIO admin		
Total	2,935	3,831

s 9(2)(b)(ii)

s 9(2)(b)(ii)

Project contingencies and funding risk have been calculated using Monte-Carlo simulation and includes consideration of quantities and rates uncertainties and discrete risks from the risk register, aligning with SM014. Additionally, a risk adjusted programme has been developed to understand and incorporate time related costs. The resultant contingency levels have been checked against and lie within the expected bounds of the NZTA Contingency Matrix.

Factors influencing the accuracy of the estimate include:

s 9(2)(g)(i)

Cashflow is based on an s 9(2)(ba)(ii) physical works programme, commencing once all property is purchased. This is a conservative approach and may change as the pre-implementation phase progresses.

An allowance for early works (for example service relocations) has been made within the cashflow. This assumption may be subject to change as pre-implementation phase progresses and works that help to de-risk the project are identified.

s 9(2)(b)(ii)

Project Quantitative Risk Analysis outputs

Refer to Appendix M – Scheduling Risk Dashboad Report

In **accordance** with SM014 and Z/44 guidelines, the Project Team have developed a quantitative risk analysis (QRA for cost) and a schedule risk analysis (SRA for time). Both models provide Monte-Carlo simulation and are used to present likely P50 and P95 outcomes for the Project.

	Project Costs		
	Base ($M)	Contingency ($M)	%age
Property cost	s 9(2)(b)(ii)		
Pre-Implementation fees			
Implementation fees			
Physical works			
Sub total			
Funding risk* not included in P50 calculations			
Escalation			
TIO admin			
Total P50		*2935*	

The above table provides details of base estimate and contingency levels used to develop the project P50, inclusions of funding risk, escalation and TIO admin is provided for completeness, enabling the reader a complete view of the project estimate.

The following provides a representation of schedule risk analysis outputs developed for the Project but analysing the Mt Victoria Tunnel package completion only. Similar representations are available for other works packages. Using P6 programme software, we can schedule the works to gain an understanding of time. By incorporating risk, we can develop a Monte-Carlo statistical analysis model which provides a better understanding of likely time durations, similar to SM014 cost estimating practices.

Funding sources identified for the project

Refer to Appendix N –
Funding and Financing Analysis

NZTA has considered funding, financing and delivery options. s 9(2)(ba)(ii)

Viability of options will need to be confirmed through the Next Phase, including engagement discussions at national, regional, portfolio and project levels.

s 9(2)(ba)(ii)

Funding cashflows for the project

Refer to **Appendix N –**
Funding and Financing Analysis

s 9(2)(ba)(ii)

Delivery Strategy

Unblocking the bottlenecks unlocks growth that requires the entire project to be delivered to ensure the Inner City can operate effectively

Appendix O– Delivery Strategy tbc

COMMERCIAL CASE

Delivery Approach

s 9(2)(b)(ii)

Statutory Approvals & Property Acquisition

- The project consenting pathway will be via the Fast Track Approvals Act, being a named project under the Act.
- Consenting procurement and delivery has commenced to achieved a consent lodgement date on or before 30 June 2026.
- Property acquisition on a willing seller / willing buyer basis will start late 2025. Property acquisition completed by end of 2028.

s 9(2)(b)(ii)

s 9(2)(b)(ii)

Key project actions & milestones

2025	2026	2027	2028
• Commence consenting activities. • Stakeholder engagement. • Commence property acquisition (willing buyer / seller and town belt PWA).	• Consent lodgement. • Property acquisition including PWA. • Early works - identifiable roading improvements that allow early substantive progress of the project.	• Decision on Fast Track Consent Application. • Decision to Implement. • s 9(2)(ba)(ii) • Property acquisitions.	s 9(2)(ba)(ii) • Property acquisition complete.

s 9(2)(ba)(ii)

Project Sequencing

Refer Appendix P - Constructability Report
Refer to Appendix Q – Traffic disruption analysis

Programme for Delivery

The scale and scope of the project provides options around sequencing and overall programme for delivery. Two options were considered:

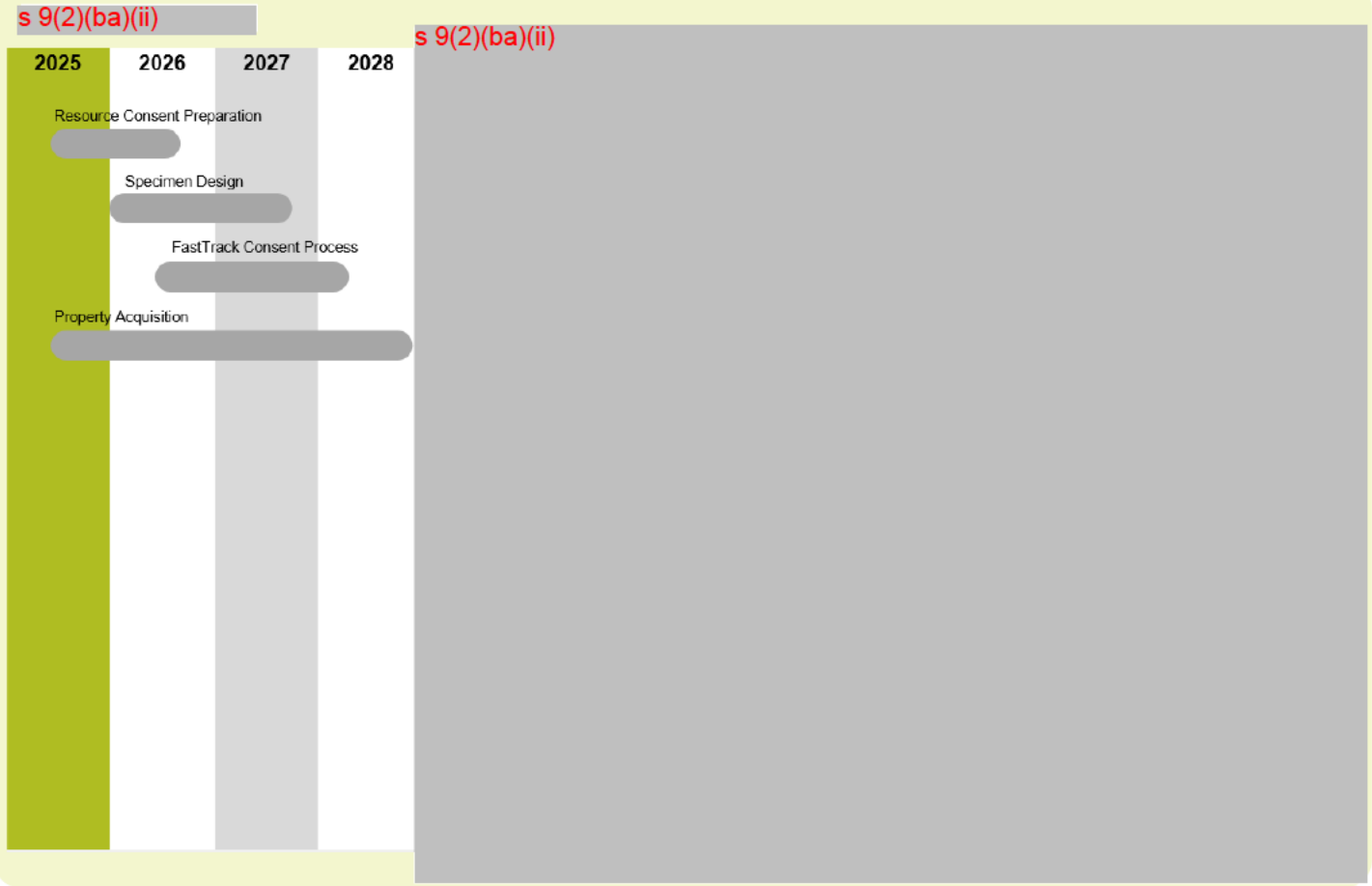
- Sequential programme – delivery over a longer duration s 9(2)(ba)(ii)
- Concurrent programme – delivery over a shortened programme s 9(2)(ba)(ii) . ***(Preferred)***

Benefits of the Shorter Programme

- **Disruption** - minimises overall traffic disruption during construction through effective traffic management, reducing inconvenience for residents and road users. The diagram opposite shows anticipated levels of disruption during construction.
- **Value for Money** - strengthens cost assurance by proactively managing escalation and preliminary costs, enabling confident delivery within the approved Investment Envelope while demonstrating prudent use of funds and value for money.
- **Uncertainty** - reduces uncertainty for packages delivered later in the programme s 9(2)(g)(i)

s 9(2)(ba)(ii)

s 9(2)(ba)(ii)



With any packaging approach, careful management of interface and disruption risk will be required. A Network Planning Group will be established to manage traffic operations, TTM, utility interfaces, and forward work package coordination.

s 9(2)(g)(i)

Procurement Strategy

s 9(2)(b)(ii)

COMMERCIAL CASE

COMMERCIAL CASE

Property Acquisition Strategy

s 9(2)(j)

s 9(2)(g)(i)

s 9(2)(g)(i)

COMMERCIAL CASE

Consenting Strategy

Investment Case Activities

- Technical specialist input to option refinement process to identify risks and potential mitigations including heritage, urban from, social impacts and noise.
- A consenting strategy to identify consenting risks and how they can be managed, as well as detailing the packaging and programme for seeking approvals under the Fast-Track Approvals Act 2024 (FTAA).

Scope of Approvals Required

The following statutory approvals will be required under the FTAA:

- Notice of requirement for an altered state highway designation.
- Regional resource consents under the Greater Wellington Regional Council's Natural Resources Plan.
- Resource consents under the Wellington City District Plan.
- An archaeological authority for the disturbance or destruction of recorded and unrecorded archaeological material.
- A wildlife permit for disturbing and relocating wildlife (Wildlife Act 1953).
- Reserves Act approvals for parts of the project that require reserve land (Kilbirnie Park)

Design phase next steps

- Obtaining consents via the FTAA is critical to achieve before construction starts.
- Early procurement of consenting and design team to start work by July 2025.
- Early investigations and engagement.
- Lodgement of FTAA application in July 2026.

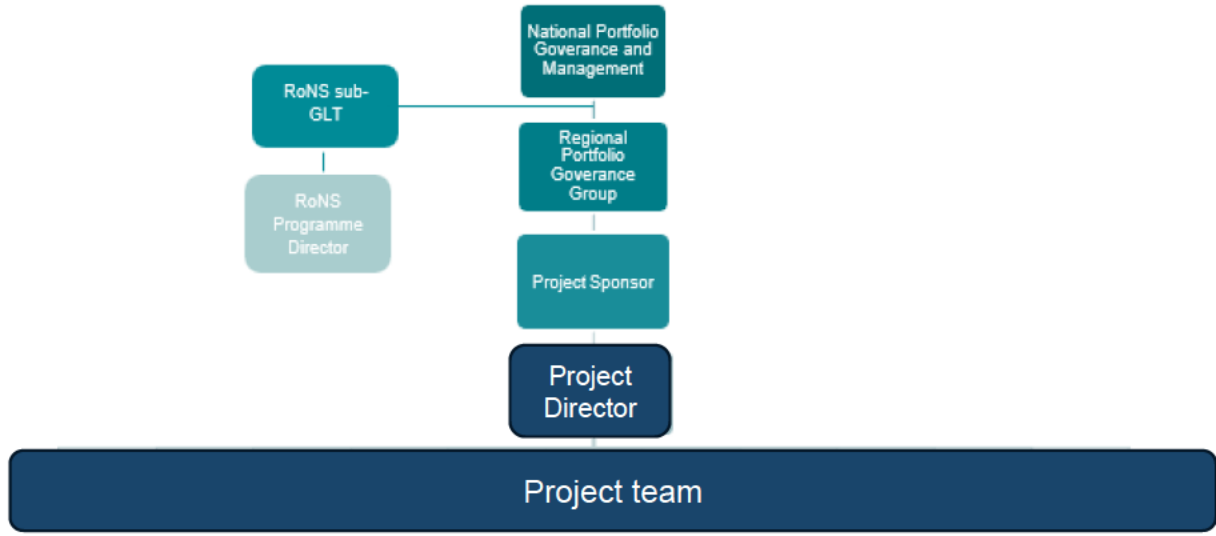
Actions and milestones

June 2025	Commence procurement of professional services for consent design and approvals	June 2026	Lodge FTAA NoR and consent applications	January 2027	Anticipated FTAA panel decision	2027 – 2028	Appeals on points of law (if any)

Programme Governance

The SH1 Wellington Improvements RoNS governance and management structure is based on the following six key characteristics:

Structure	The delivery structure supported through a well-defined Terms of Reference and RACI confirming decision-making delegations
Hierarchy	The adopted hierarchy (a combination of local, regional and national resources) ensures there are clear lines of authority and reporting within the business, clearly separating operational and strategic decision making and governance.
Sponsorship	The Sponsor will ensure project teams are set up for success from the outset in terms of planning, assurance, capability, funding, resources, contingencies, and risk identification. They support the escalation of risks and issues if they cannot be resolved at the project level, and advocate for the project.
Ownership	The **Regional Portfolio Governance Group** are responsible for ensuring the successful delivery of the Regional Portfolio by governing projects within the region. They provide insight to the national programme and have oversight of all decisions being made.
Accountability	Apply robust risk and assurance processes through the various governance levels to support the project team, and project team objectives
Systems	The Project will be delivered using a Portfolio, Programme & Project management (**P3M**) framework. This will strengthen governance and focus the team on the things that make the biggest difference, adopt standardised reporting, enable clearer decision making, and ensure that the team are not stretched too far.



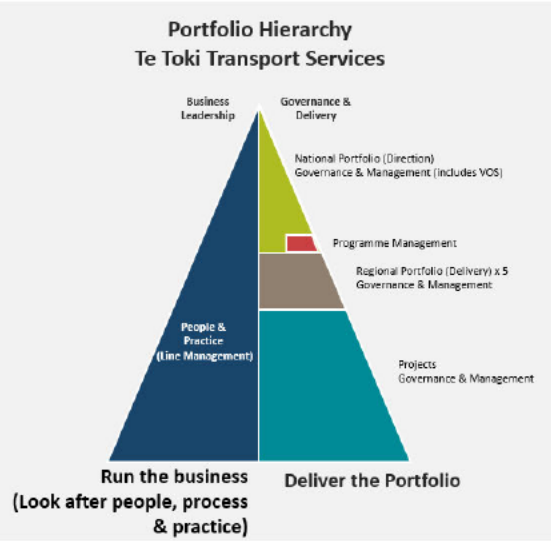
Following international best practice, a P3M model creates a clear distinction between leadership of the business from leadership of delivery through P3M.

Maintenance, operations, and capital improvements are within the P3M model.

Everybody has a role on both sides of this triangle, including GLT. However, there are two distinct hats – business leadership and governance & delivery.

The left side is governed through line management

The right side is governed through roles assigned through a P3M model.



Pre-Implementation Management

Read in conjunction with Delivery Strategy Road Map – Slide 50

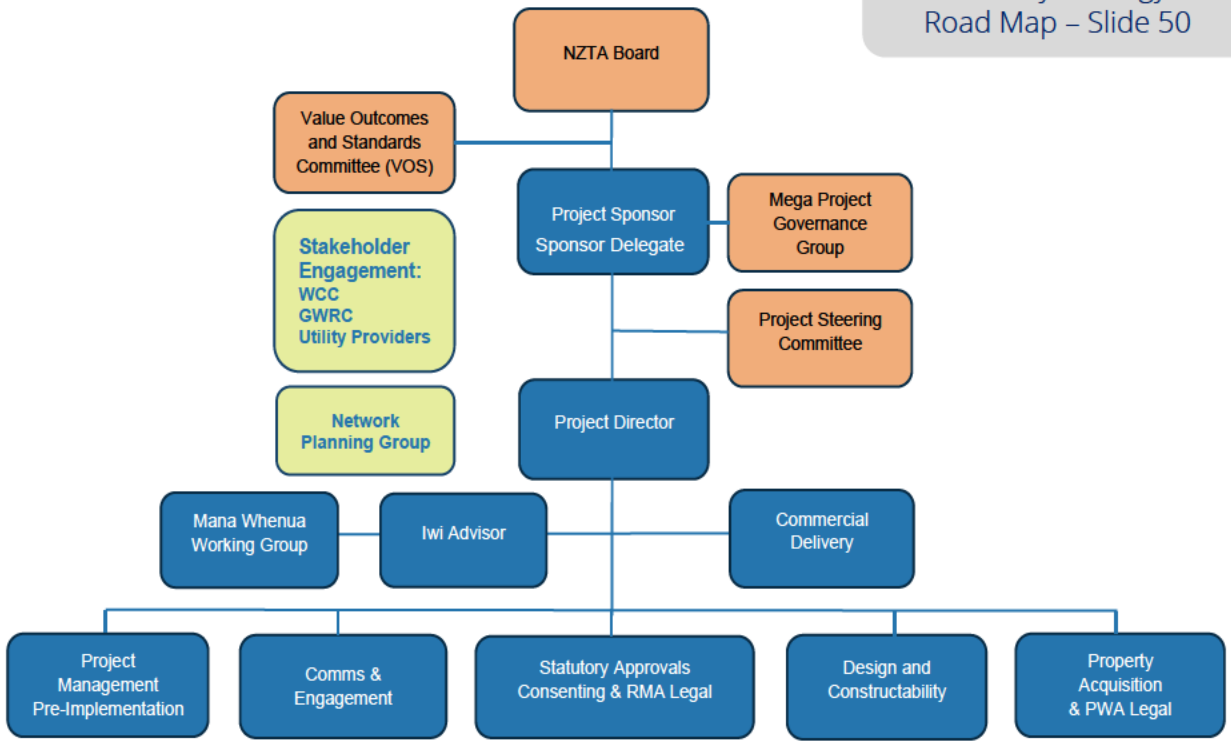
The pre-implementation phase is focused on securing statutory approvals and acquiring property—both essential prerequisites for progressing to implementation delivery.

Team:

- The project will be led by NZTA, supported by outsourced functional expertise as needed. Each function is NZTA-led and forms part of the project leadership team.
- The structure enables clear hierarchy, communication, and coordination across functions.
- Key working groups include iwi, councils, utility providers, and traffic operations.
- Collaboration between all parties is a critical requirement for success.

Scope:

- Advance the consenting approach to secure statutory approvals under the Fast Track Approvals Act.
- Continue engagement with mana whenua and stakeholders; deliver consultation required for the consenting process.
- Implement the property acquisition programme necessary to enable future construction packages.
- Provide technical and design services to support consenting and property acquisition.
- Progress early risk mitigation (e.g. geotechnical investigations, s 9(2)(ba)(ii)).
- Procure the Professional Services and Contractor support needed to deliver this phase of the project.
- Develop design from concept to specimen level, subject to final delivery model.
- Refine and optimise delivery strategy for upcoming implementation s 9(2)(ba)(ii), s 9(2)
- Establish a Network Planning Group to coordinate utilities, traffic signal operations, TTM and interface management, readying it for operational use in delivery.



Governance

The project governance structure comprises:

- Project Sponsor: Accountable for overall delivery.
- Project Steering Committee (PSC): Provides guidance and support (non-decision-making) members to bring experience in consenting, construction, delivery and project commercial management.
- Mega Project Governance Group: Offers strategic oversight to the Sponsor.
- Value, Outcomes and Standards (VOS) Committee: Supports decision-making with assurance.
- NZTA Board: Provides overall oversight and holds decision rights on key matters, including the Investment Case and funding approvals.

Implementation Management

Read in conjunction with Delivery Strategy Road Map – Slide 50

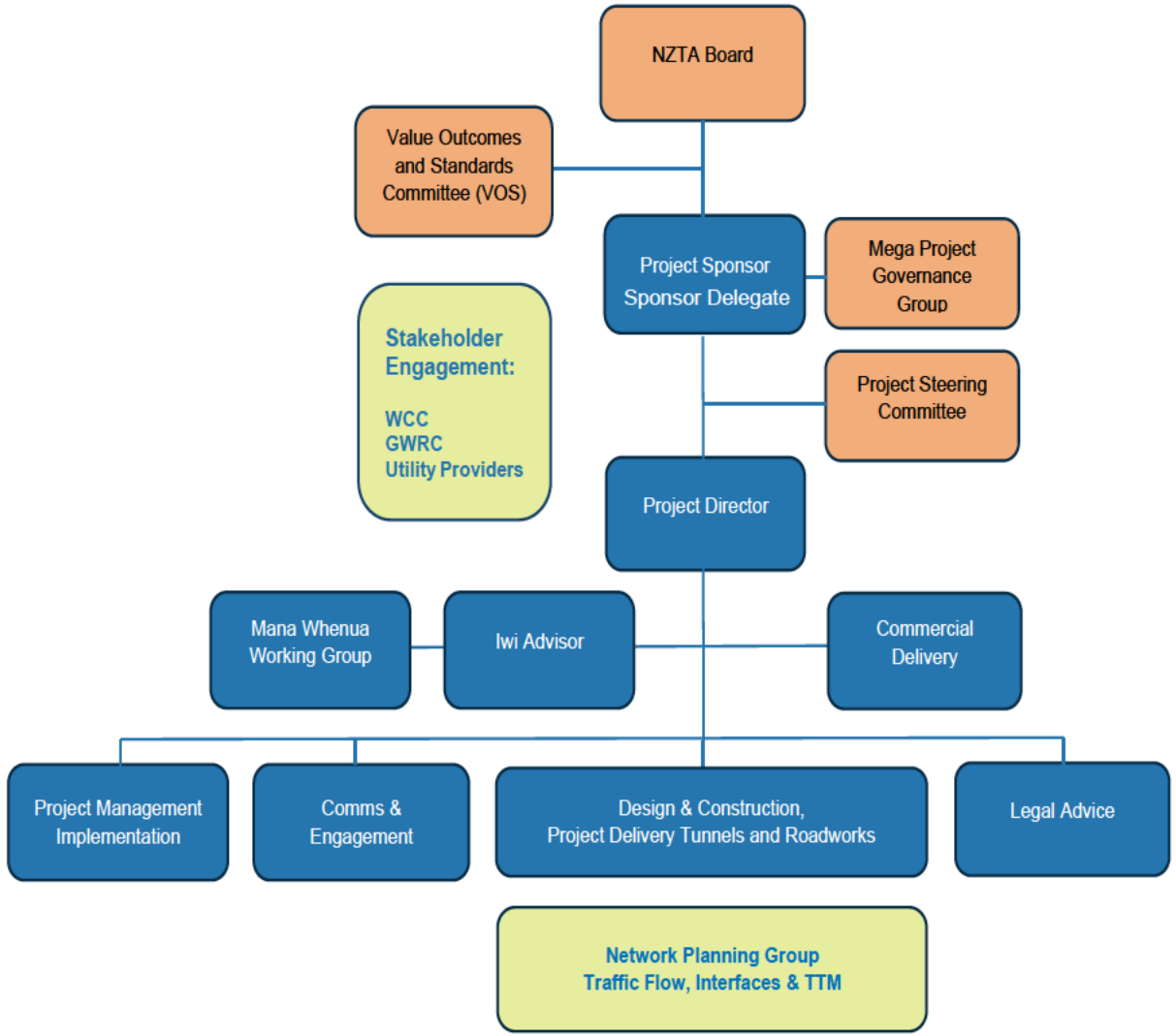
The delivery phase encompasses the detailed design and construction of two duplicate tunnels and associated interconnecting roadworks. Procurement and delivery of individual work packages will align with the Delivery Strategy established in the Investment Case and refined during Pre-Implementation.

Team:

- The delivery project structure is shown to the right.
- Governance, engagement, and project management frameworks are maintained from the pre-implementation phase, ensuring continuity across functional areas.
- Stakeholder relationships become critical in programming any other project works across the city, and to maintain a united approach for a successful delivery which benefits Wellington and Wellingtonians.
- Project management, communications and engagement, legal, and commercial functions now pivot to supporting the design and construction teams in delivering the works safely and in full compliance with consent conditions.

Scope:

- Monitor compliance with statutory approvals under the FTAA and PWA obligations post-acquisition.
- Maintain engagement with mana whenua, councils, community groups, and the public throughout delivery.
- NZTA Professional Services support to review contractor design and construction documentation for technical compliance and to achieve minimum requirements.
- Ensure commercial management across the Implementation phase.
- Oversee construction progress and monitor compliance with contract specifications.
- Operationalise the Network Planning Group to manage traffic signal operations, TTM, utility interfaces and forward work package coordination across the construction footprint.



Investment Case
Pre-Implementation
Both

Project Assurance

Three lines of defence have been used through the Investment Case and will continue to be adopted to ensure appropriate assurances:

Line 1:

In-project assurance with Project Management, Design Team, Subject Matter Experts

Continuous monitoring, checking and improvements

Check and align with RONS standards and good practice

Procurement of suitably qualified personnel

Project tracking and reporting

Line 2:

Decisions tracked and escalated to relevant level of authority

Challenge groups and expert advisors (constructability and tunnelling for example)

Close collaboration with CEAG of engineering technical matters

Regular check ins with the Project Sponsor and Reference Group for integration of leadership, direction and decision escalation

IQA and Investment Advisor brought on the development journey

Risk management processes (ARM)

Line 3:

Independent Peer Reviews:

- Transport modelling and Economics
- Cost Estimate parallel review

Safe System Assessment

Project Governance

Confirmation of costs and benefit return on investment

Gateway Review for readiness to implement

Refer to Appendix R – Benefit Realisation Plan

Benefits Realisation

Measuring success against our Investment Objective

To provide more efficient and reliable access on State Highway 1 from north of the Terrace Tunnel to Wellington Airport and Wellington Hospital to support regional economic growth

Improving travel time and reliability to national and regional destinations

- Real time monitoring of travel times via the WTOC variable message signs
  - SH1 southbound @ Kaiwharawhara to Airport
  - SH1 southbound @ Kaiwharawhara to Hospital
  - SH1 northbound @ Cobham Drive to central city

Improved access results in more people using SH1 and less traffic on local roads

- NZTA Traffic Monitoring System and WCC traffic counting
  - Terrace Tunnel, Vivian Street and Mt Victoria Tunnel (include walk/cycle uptake)
  - Harbour Quays @ Post Office Square

Achieving this will provide the following benefits:

- Improved travel time
- Improved reliability
- Improved access to national and regional places

Key Project Risks

s 9(2)(g)(i)

s 9(2)(g)(i)

Local Road Revocation Planning

Following completion of the SH1 Wellington Improvements project, some sections of state highway and construction areas will no longer be required for state highway purposes. These roads, along with other sections of new road, will be handed over to the Wellington City Council to manage and maintain.

Areas under consideration for revocation include:

- Changes to local road assets and intersections to support SH1 improvements
- Existing roads on current highway designations (e.g. Sussex St and Dufferin St)
- New local roads constructed as part of the project (e.g. Sussex St extension)
- New service lanes / roads adjacent to highway to maintain property access

Revocation will transfer ownership, control and funding responsibility of roads to Wellington City Council (as the local road controlling authority). Revoked sections of the state highway will need to be 'fit for purpose' as local roads on handover. This will be determined by the revoked roads future function in the context of its surrounding land-use and transport network operations.

The project has assumed a future function and associated form for these areas, and engagement is required with Partners and key Stakeholders to finalise these changes.

Next steps – in line with NZTA Revocation Policy

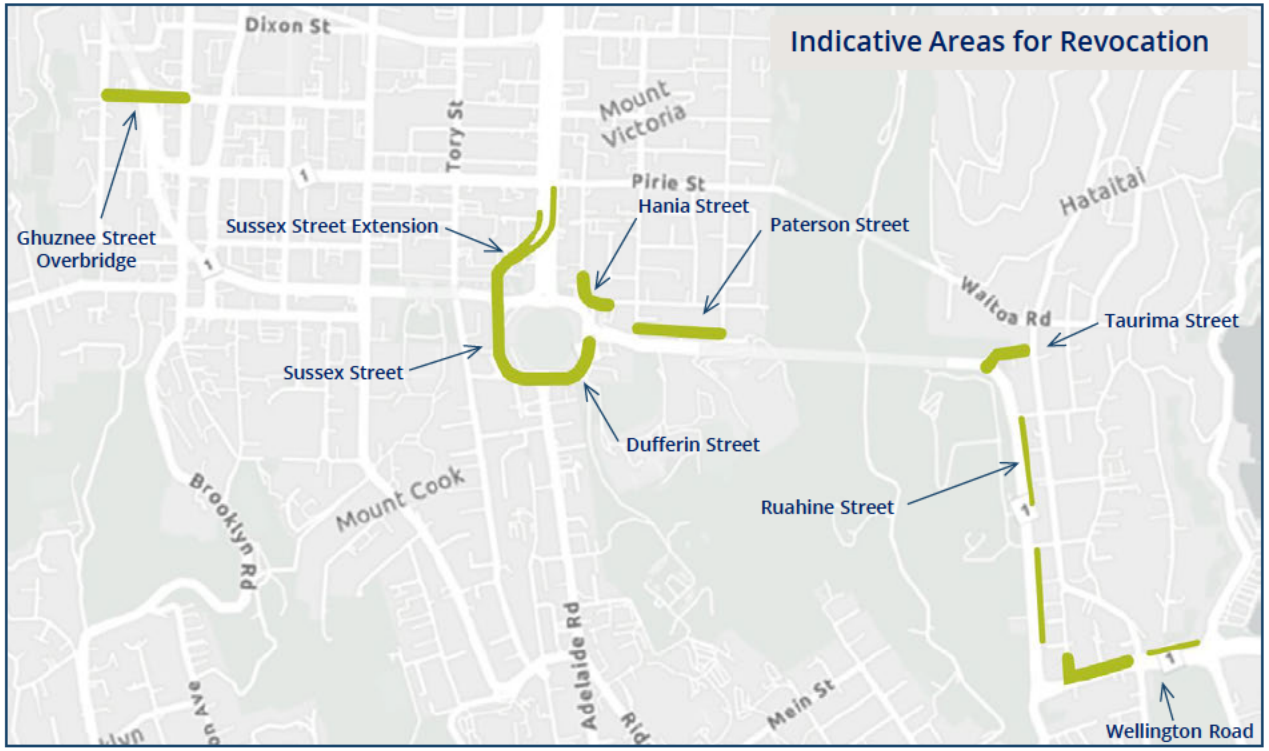
Revocation planning and WCC engagement activities will be undertaken during the pre-implementation phase including agreeing future function and "fit for purpose".

The NZTA National Approach to Revocation will be applied, including a Revocation Assessment and Revocation Plan to cover Design and Implementation of any agreed works. Final boundaries to be confirmed through next phase discussions.

A revocation agreement with WCC will formalise the revoked sections of the state highway and those assets to be handed over to Council.

Costs associated with the reconfiguration of local roads are included in the project design and budget. No additional revocation costs are expected. In preparing for asset handover a maintenance management agreement will be required with WCC.

Refer to Appendix S – Revocation Map for discussion



Package	Roads for Revocation
Terrace Tunnel	Ghuznee Street (overbridge from Willis Street to The Terrace)
Basin Reserve	Sussex Street (between Adelaide Road and Buckle Street) Sussex Street Extension (Buckle Street to Cambridge Terrace) Dufferin Street (between Sussex Street and Patterson Street) Hania Street / Ellice Street (restricting access to SH1)
Mt Victoria Tunnel	Paterson Street (Brougham Street to Austin Street) Wellington Road (intersections and parallel service lanes) Ruahine Street (intersections at Taurima and Goa Street, and parallel service lanes)

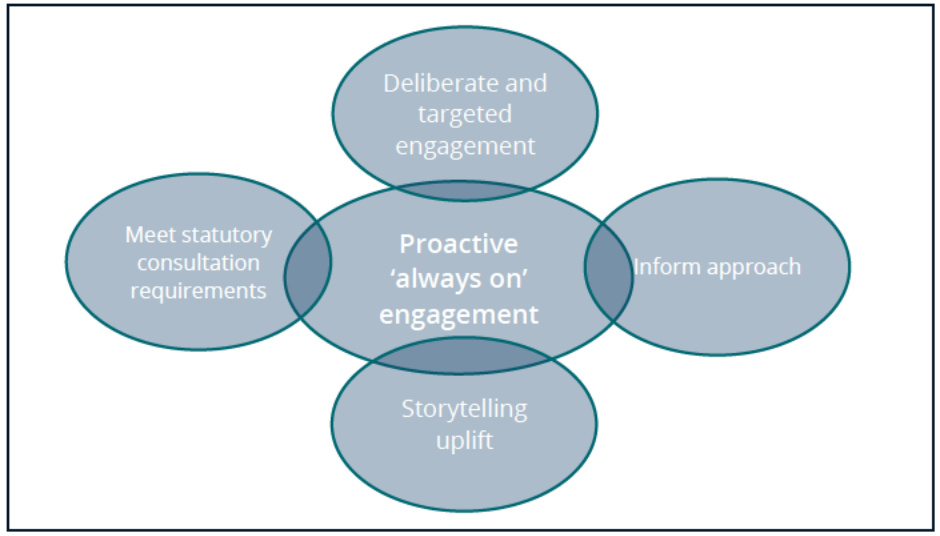
Communications and engagement for future phases

Refer to Appendix T – C&E Strategy

A focus on deliberate and targeted engagement with mana whenua partners, council stakeholders and other affected stakeholders, seeking their insights throughout the project lifecycle to help inform decision-making and optimise project outcomes. In parallel, a consistent feed of stories and information will be shared with regional community, demonstrating project benefits and celebrating milestones. This will deepen community understanding while building support and social licence to carry the project through construction.

C&E objectives

- Develop and maintain an 'always on' engagement approach that supports mana whenua partners and key stakeholders to provide input to decisions where they have an interest, or statutory responsibility while allowing the project to move at pace.
- Engage early and build enduring relationships with broader stakeholders (i.e. project neighbours) that will carry the project through to delivery.
- Proactively share stories that highlight innovation and progress towards delivery.
- Build broad awareness and understanding of the project and its benefits amongst regional community to build support.



Design phase activities

2025 — Targeted engagement to inform early design refinements and support consent applications

- Mana whenua engagement through Mana Whenua Steering Group on areas of interest, including sites of cultural significance, mitigations of effects, project opportunities and cultural expression.
- WCC/GWRC engagement on intersections with local roads and PT network, property impacts (Town Belt and Reserves land), utility coordination and traffic management planning (through a Network Planning Group)
- Engagement with landowners, neighbours, strategic stakeholders (i.e. airport, hospital, utilities, emergency services) and other affected stakeholders to understand impacts and opportunities.
- Structured submission form developed to provide focused channel for wider community feedback

Storytelling /Inform - Build awareness, understanding and support within regional community

- Ministerial media announcement of Investment decision, supported by stakeholder communications.
- Establish NZTA website as project info hub, region-wide community drop-in information sessions, stories shared through media, NZTA owned channels and stakeholder channels.
- Start building an email database, establishing an efficient direct communications channel.

2026/ 2027 — Ongoing targeted engagement

- Mana whenua engagement through the Mana Whenua Steering Group to ensure ongoing input.
- WCC/GWRC (Network planning, consenting , revocation become key areas of focus).
- Keep key stakeholders, landowners, neighbours and other affected parties informed and seek further input where required.

Ongoing storytelling/ inform

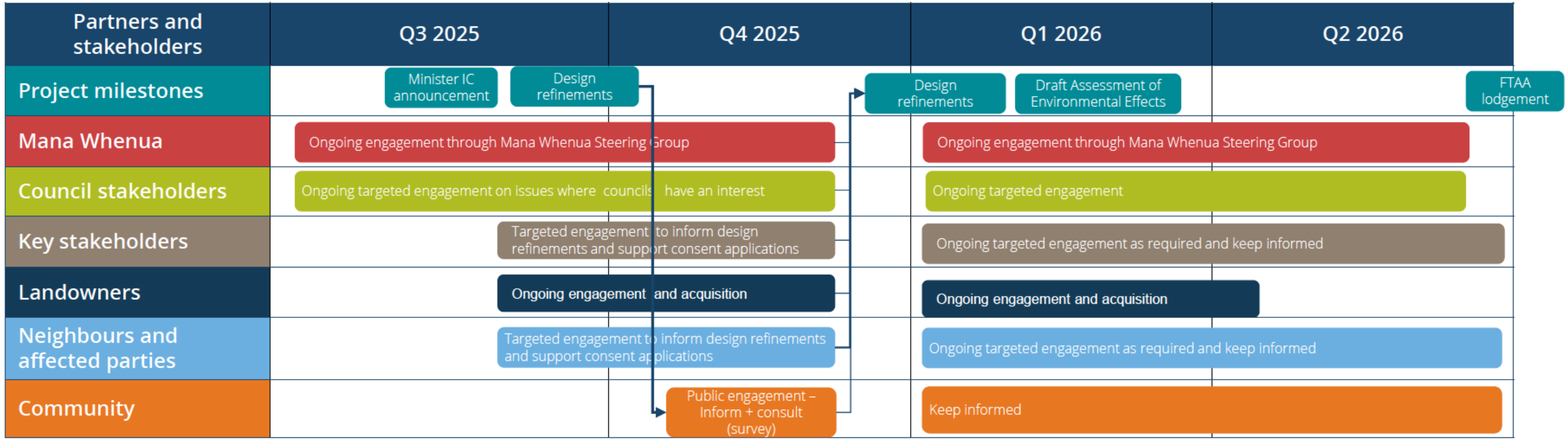
- Minister media opportunities around key milestones, share stories through NZTA owned channels

s 9(2)(ba)(ii), s 9(2)(f)(iv)

s 9(2)(ba)(ii)

Engagement is critical for success of next steps

Coordination across various workstreams is critical for FTAA lodgement in July 2026



While early engagement with Mana Whenua, councils and some key stakeholders has begun during the development of the Investment Case, much broader engagement will be required in the next phase.

This engagement will help inform design refinements and support the lodgement of consent applications by the target date of July 2026.

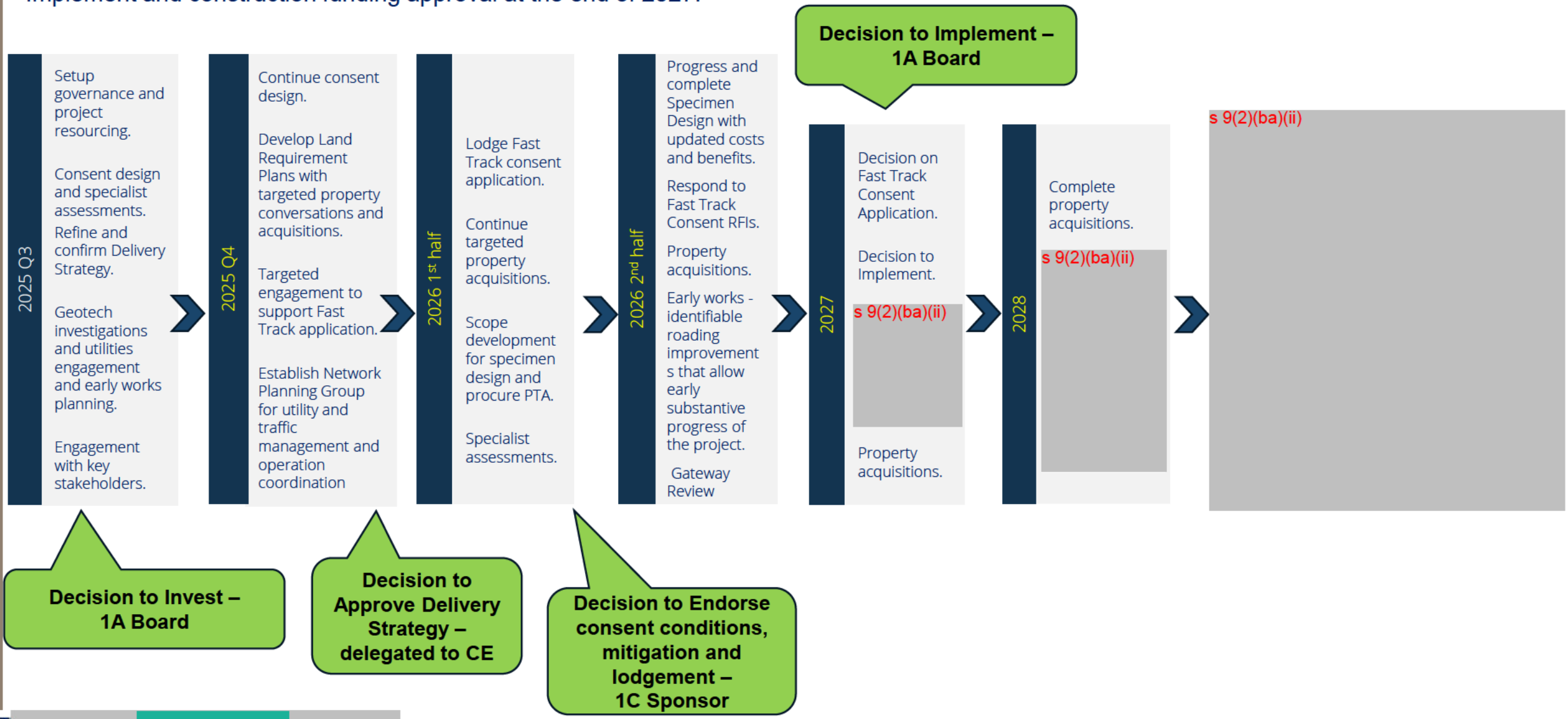
Though engagement will be ongoing, there will be an initial focused period following the announcement of the investment decision through to the end of 2025 to meet the first design refinement milestone.

Co-ordinating and passing on engagement feedback to the consenting and design workstreams will be important for success.

Delivery Next Steps

Approving pre-implementation funding will enable the below milestones up to the end of 2028. We will return to the Board for a Decision to Implement and construction funding approval at the end of 2027.

MANAGEMENT CASE



Investment case approvals sought

APPROVALS

The Investment Case has demonstrated the Case for Change, costs, outcomes and benefits of the project. It is recommended to progress the SH1 Wellington Improvements RoNS Project with a **"Decision to Invest"** and that the NZTA Board:

- **Endorses** the RoNS SH1Wellington Improvements Investment Case.
- **Approves** funding to NZTA for RoNS SH1 Wellington Improvements pre-implementation at a total cost of $185m (P50; 100% funding assistance rate (FAR)) from the NLTF State Highway Improvements Activity Class.

s 9(2)(ba)(ii), s 9(2)(f)(iv)

- **Notes** that $6m of early at-risk funding for consent planning work has already been approved (June 2025) and property funding of s 9(2)(j) will be sought from the previously approved RoNS property bulk fund.

s 9(2)(ba)(ii), s 9(2)(f)(iv)