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ACCESS *for* EVERYONE

Programme Business Case



Auckland
Transport

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Glossary of Abbreviations

Abbreviation	Name / Term (in full)
A4E	Access for Everyone
ADT	Average Daily Traffic
AFC	Auckland Forecasting Centre
AMA	Auckland Motorway Alliance
ANOP	Auckland Network Operating Plan
AT	Auckland Transport
ATAP	Auckland Transport Alignment Project
ATOC	Auckland Transport Operations Centre
AUP	Auckland Unitary Plan
BCR	Benefit cost ratio
CBA	Cost benefit analysis
CC2M	City Centre to Māngere Light Rail
CCMP	City Centre Master Plan
CCO	Council-controlled organisation
CIA	Cultural impact assessment
CMA	Coastal marine area
CRL	City Rail Link
CVA	Cultural values assessment
DBC	Detailed business case
DSIs	Deaths and serious injuries
EEM	Economic Evaluation Manual
EQS	Engineering quality standards
FULSS	Future Urban Land Supply Strategy
FUZ	Future Urban Zone
GPS	Government Policy Statement on Land Transport
HCV	Heavy commercial vehicle
Heritage NZ	Heritage New Zealand Pouhere Taonga
HNZPTA	Heritage New Zealand Pouhere Taonga Act 2014
HOV	High occupancy vehicle
IAF	Investment assessment framework
IBC	Indicative business case
ILM	Investment logic map
IQMP	Information and quality management plan
ISO	International Standard Organisation
ITS	Intelligent transport system
KPI	Key performance indicator
LCV	Light commercial vehicle
LEZ	Low emissions zone
LOS	Level of service

LTN	Low traffic neighbourhood
MCA	Multi-criteria analysis
MHCV	Medium to heavy commercial vehicle
MOU	Memorandum of understanding
MRT	Mass rapid transit
MSM	Macro Strategic Model
MSQA	Management, surveillance and quality assurance
NLTF	National Land Transport Fund
NLTP	National Land Transport Programme
NoR	Notice of Requirement
NPV	Net present value
ONRC	One Network Road Classification
P&R	Park and ride
PBC	Programme business case
QA	Quality assurance
RASF	Roads and Streets Framework
RCA	Road controlling authority
RFP	Request for proposal
RLTP	Regional Land Transport Plan
RMA	Resource Management Act 1991
RPTP	Regional Public Transport Plan
RSA	Road safety audit
RTN	Rapid transit network
SH(#)	State Highway (number)
SOI	Statement of Intent
SOV	Single occupancy vehicle
SSBC	Single-stage business case
SUP	Shared use path
TDM	Transport Design Manual (Auckland Transport)
VKT	Vehicle kilometres travelled
Waka Kotahi	Waka Kotahi NZ Transport Agency
ZEA	Zero emissions area

EXECUTIVE SUMMARY

Why develop a business case to improve multi-modal access to Tāmaki Makaurau's city centre?

The need to shift access to and within Tāmaki Makaurau's city centre toward public transport and active modes and away from private vehicle use is well documented both across local transport programmes, such as the Auckland Transport Alignment Project (ATAP), and Central Government policy. Meanwhile, the need for a substantial improvement to the public realm for city centre residents, visitors, and businesses has been identified as a clear need within local policy. Both Tāmaki Makaurau's City Centre Masterplan (CCMP) and Waka Kotahi's mode shift plan, *Keeping Cities Moving*, have identified Access for Everyone (A4E) as a critical method for achieving these goals.

Access for Everyone is a strategy to manage transport circulation, street design, and operations across the city centre. It rethinks how space is prioritised and seeks to improve the urban environment. The Access for Everyone concept formed a major part of Tāmaki Makaurau's City Centre Masterplan 2020 refresh and was endorsed by Auckland Council in 2020.

This business case brings the Access for Everyone concept from the City Centre Masterplan into the transport delivery process and is intended to create a pathway for funding and delivery by the responsible agencies. It does this by demonstrating that there is evidence to support the problems the concept would solve, investigating alternatives and testing its key components for effectiveness, feasibility and risk. The business case also develops important elements such as costs, value for money and establishes a framework for delivery.

At its core, Access for Everyone, as defined by this business case, is made up of two components:

Firstly, it is a movement circulation plan that creates space for efficient or desirable activities such as walking, cycling and public transport. It does this by restricting the movements of private vehicles through Tāmaki Makaurau's city centre to specific streets.

Secondly, Access for Everyone is a coordination programme for the city centre. It creates a strategic framework to organise, monitor and prioritise city centre projects while minimising disruption and enable quality engagement with stakeholders.

The case for change

Tāmaki Makaurau's city centre is growing quickly. Over the last 10 years, the city centre has radically transformed from primarily a place of business into a residential and cultural hub. Nearly 35,000 people live in the city centre. The population is growing at six times the rate of the wider Tāmaki Makaurau and is expected to more than double to nearly 70,000 by 2048. Jobs in the city centre are set to increase to more than 140,000 by the same year.

On top of this, approximately 43,000 students attend the universities and education providers in the city centre, and the city centre generates over \$1.6 billion of retail expenditure annually, cementing it as a central location both for education and shopping.

Meanwhile, more people are using efficient modes to access the city centre. Since, 2016, and prior to Covid-19 disruptions, more people accessed the city centre by public transport, walking, and cycling during the morning peak period than have by private vehicle. While private vehicle access has remained relatively steady

into the city centre for the past 20 years, and is expected to decline; public transport, walking and cycling are all expected to increase in terms of the number of people using these modes to access the city centre.

Despite these trends, the current space allocation for private vehicles in the city leads to problems that are expected to be exacerbated by the growth in other modes and population in the city centre. Through the problem definition process, this business case has identified the following problems.

Problem 1: *A disproportionate allocation of street space to inefficient transport modes causes unreliable access for all users limiting the city centre's economic potential.*

Problem 2: *A dominance of design and management for traffic, and inadequate design for people creates poor quality places and user experience limiting the social, economic and environmental potential of the city centre.*

Problem 3: *High concentrations of people and high exposure to traffic results in harm and health issues from crashes, noise and pollutants.*

What happens if nothing is done?

The expected growth in population, employment and wider need for access to the city centre means that severe competition for space in the city centre can be expected in the future. Without adopting a plan to reorder the space available more effectively, problems of public and private transport unreliability, poor user experience in the city centre and harm from both pollution and collisions with vehicles can be expected to continue and be exacerbated.

Additionally, without a fundamental change in the way transport is organised in the city centre, Tāmaki Makaurau is not expected to be able to achieve its commitment to the C40 commitment of delivering a Zero Emissions Area (ZEA) by 2030, nor deliver its City Centre Masterplan (of which Access for Everyone makes up a significant part), and Waka Kotahi will no longer be able to draw on Access for Everyone as a flagship traffic management programme as part of its wider mode shift policy for Aotearoa.¹

Option development

This business case tested a range of alternative solutions to see how well each addressed the identified problems. These included a circulation plan – that is an approach to operating the street network in a way that facilitates public transport and active modes whilst restricting the ability of general traffic to make cross centre movements, – as well as options such as grade separation of public transport or private vehicles and public realm upgrades.

A circulation plan was found to best address the problem statements relative to its level of disruption and cost. Still, it was found that components of other options must be integrated with a traffic circulation plan to mitigate potential disbenefits. These include travel demand management measures to reduce traffic volumes and providing certainty to the provision of service/delivery, mobility, emergency and taxi/ride hail services.

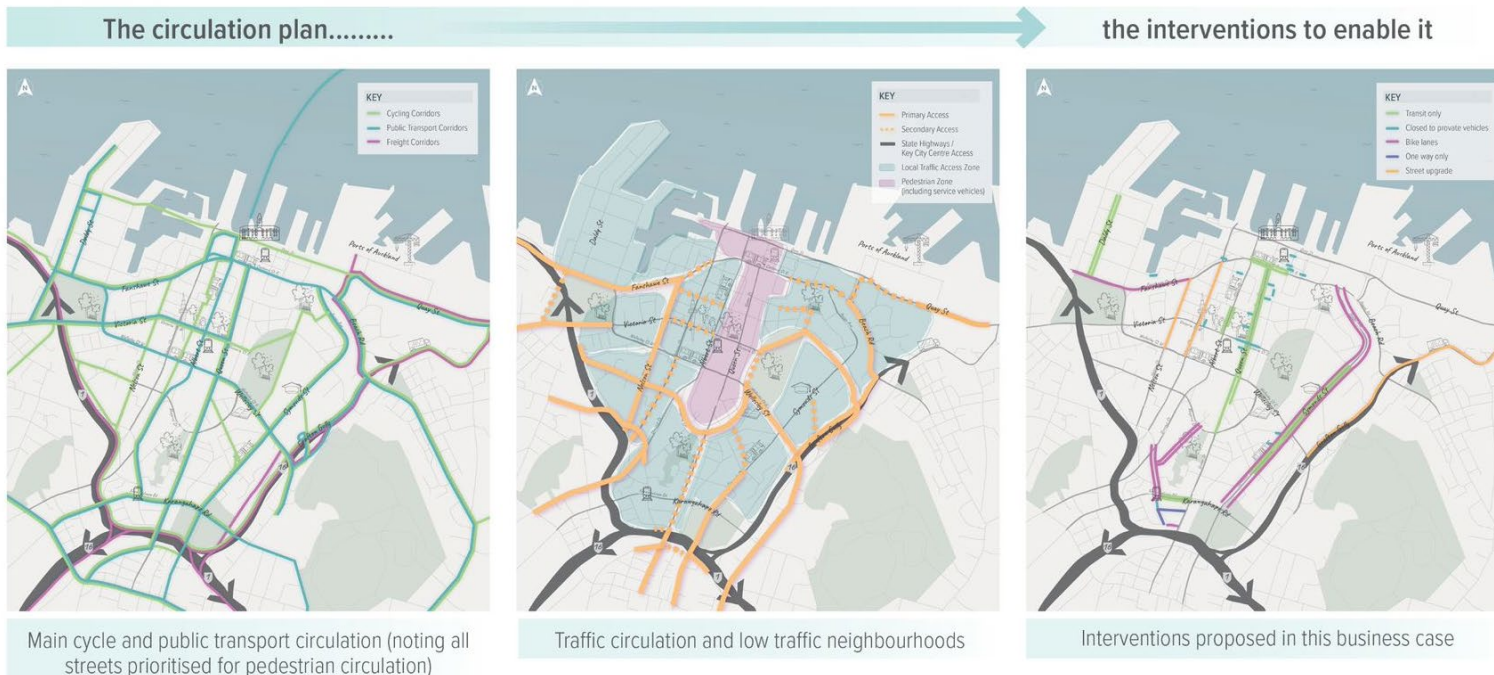
A combined package of options was carried forward to the short list phase, consisting of a circulation plan with enabling measures from four of the other long list options included.

¹ <https://www.nzta.govt.nz/assets/resources/keeping-cities-moving/Keeping-cities-moving.pdf>

Preferred option

The core components of the preferred circulation plan are:

- Removing non-destination ‘through traffic’ from most of the city centre routes, with such journeys instead required use the motorway to go around the city centre with Mayoral Drive expected to serve as an ‘inner ring road’.
- Removing private vehicles from much of Queen Street, enabling the street to become a transit or pedestrian mall.
- Traffic circulation changes to restrict east – west private vehicle traffic across the Waihorotiu Queen Street Valley to create a pedestrian-priority zone including the City Centre Masterplan laneway network and forming the Mayoral C40 declaration zero emissions area (ZEA).
- Forming a series of low-traffic neighbourhood zones that cars can access and egress but cannot travel between, but which are permeable by walking, cycling, and public transport – enabling key cycling and public transport routes. Note that these low traffic neighbourhoods are indicative only and will require further definition.
- Traffic circulation changes on main arterials to enable public transport-only sections on Queen Street, Wellesley Street, Symonds Street, Karangahape Road, and Customs Street. These sections would also allow for active modes and servicing, loading and mobility access as required.



The interventions all scored positively through the multi-criteria analysis (MCA) and were then organised into various programme options which were compared against each other, with different priorities tested.

Staged implementation

The recommended programme developed from this process is staged over the next 10 years. This will allow time for mode shift and other changes in travel behaviour to be managed and the effects of the circulation changes monitored and responded to.

The programme has been developed based on the expected costs and benefits of each intervention, as well as the interdependencies between interventions and with expected external influences – such as other transport projects. The staging diagram below provides a graphic interpretation of this programme as a reference. While this is the programme recommended at the time of writing, it is expected that the final programme will be determined by further business cases for many interventions and will be influenced by the delivery of related projects in the city centre. It is expected that some of the interventions included in the programme will be implemented by existing programmes and workstreams in coordination with an Access for Everyone governance unit.

Priority actions

The preferred programme is characterised by a prioritised suite of actions, not all of which are in transport delivery.

The early priorities are based on addressing the risks the programme faces, the needs of the business and residential community and the need to minimise disruption in the city centre. Priority actions are to:

- Establish a co-ordination and management structure
- Set up an engagement model
- Commence monitoring of the city centre's movement network and the effects of changes made
- Develop and implement strategies to influence demand, enable servicing, loading and deliveries, mobility access and taxi/ride hail services
- Develop network management and optimisation protocols
- Leverage existing projects to deliver outcomes sought by the programme

After these are in place, the strategy envisages progressing plans for physical changes to the city centre's circulation.

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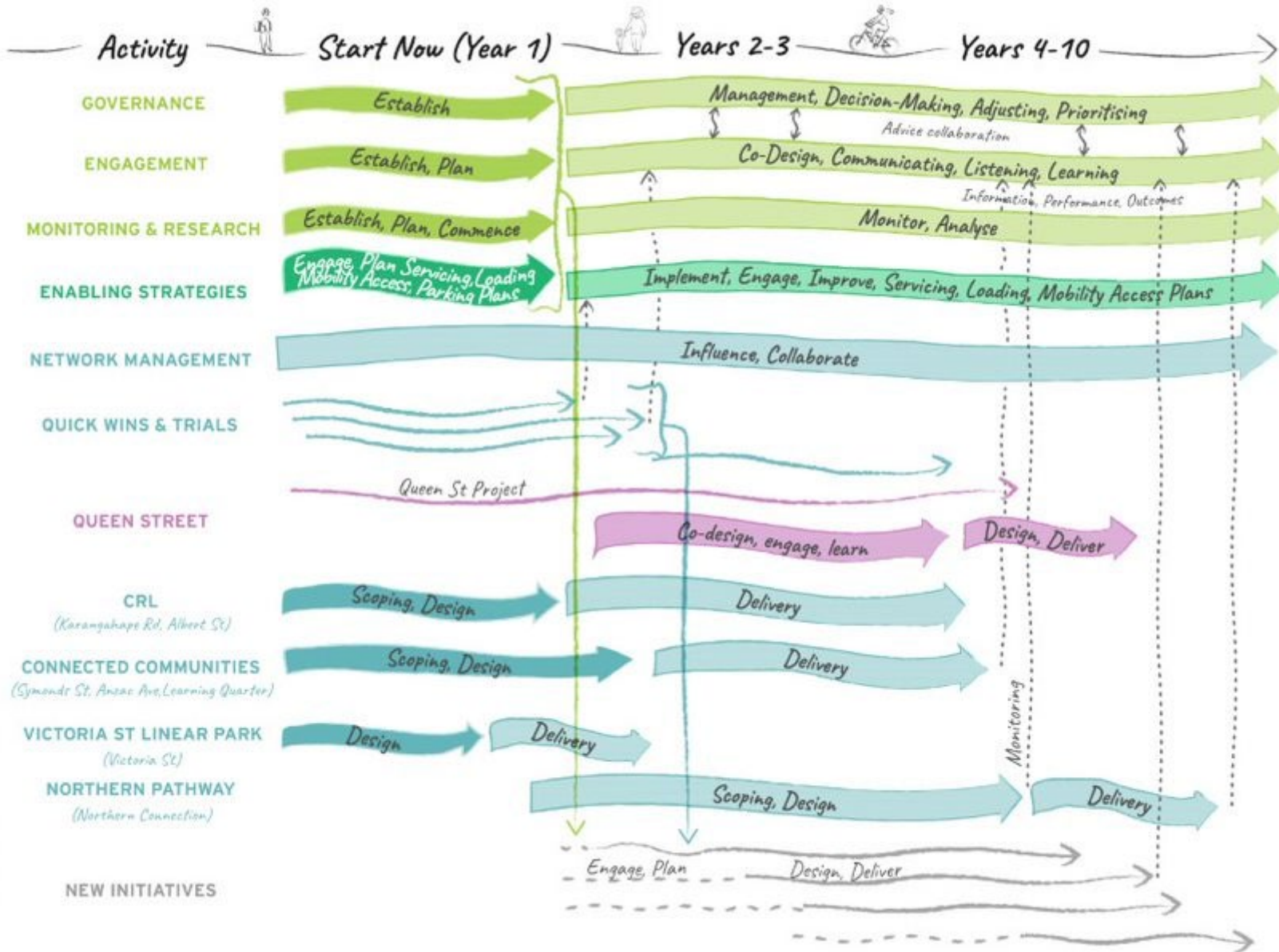
Set Up

Develop

Start

Leverage, Align

Scope, Deliver



Benefits of the programme

The business case found that the preferred option addresses the target benefits, as follows.

- **Improve the productivity of the city centre:** Productivity of the city centre is reliant on access by efficient modes. The preferred option provides far greater length of separated cycle lanes, public transport priority, and a significant amount of widened footpaths, as well as reducing general traffic volumes to improve public transport travel time reliability.
- **Improve the amenity of the centre city:** The interventions enable approximately 33,000m² of additional public space to be allocated in the city centre, enabling the amenity of the area to be significantly improved.
- **Improve access for freight and service and delivery:** The preferred option would increase priority for freight, service, and delivery vehicles, including through additional kerbside space and access to restricted streets for service and delivery vehicles at certain times of day.
- **Improve the experience for and growth in tourism and visitors:** Improved amenity is expected to strengthen the city centre's cultural and recreational offerings and attract more visitors and tourists.
- **Reduce harm to all users from crashes:** A significant expected reduction in daily vehicle kilometres travelled of 284,00km/day as a result of the interventions alongside the removal of general through traffic in the city centre is expected to reduce deaths and serious injuries by 80-90%.
- **Reduce the exposure of people to harmful noise and emissions:** Fewer vehicles in the city centre is also expected to reduce exposure to vehicle noise and emissions. Along Queen Street noise levels and emissions are expected to reduce by over 90%.

Project risks

Implementing the recommendations of the Access for Everyone PBC is expected to make some private vehicle journeys more circuitous or longer. A key programme risk is thus opposition from particular landowners, users or other stakeholders for whom existing journeys may be impacted. Key additional risks include fatigue associated with ongoing disruption in the city centre for residents and businesses, and risk of city centre projects lacking strategic integration with Access for Everyone objectives.

The preferred programme mitigates these risks by identifying the need for a programme co-ordination structure, including development of a programme office, with a dedicated programme director as a key element in reducing and mitigating these risks as the programme is taken forward. The staging strategy and monitoring plan will mitigate these risks as the plan can be informed by experience on the ground and modified as the programme progresses.

With specific provision, a circulation plan can improve access for a range of important city centre users, including differently abled people, service and delivery vehicles, and taxi, ride-hail, and pick-up/drop-off vehicles. Without specific strategies and coordination with such groups, however, a circulation plan risks restricting their movement. The programme has thus identified the need for city-centre-wide strategies to support the needs of these and other city centre users as early actions.

A range of strategies are recommended to support a circulation plan by addressing the needs of specific users and enabling transport and land use changes. These include the following:

Kerbside management for:

- Servicing, loading and deliveries
- *Comprehensive Parking Management Plan: Parking*

Access Management:

- Large vehicle access strategy
- Wayfinding – technology (apps, real time, etc.) and signs
- Technology – changes to navigation (Google)
- Public transport capacity/network design

management and supply, pricing and enforcement

- Disability access
- Taxi/ride-hail strategy
- Demand Management - Cordon tolls, road pricing
- Cycleway programme
- Queen Street low emissions zone (LEZ)
- Zoning/rule changes to accommodate revised property access, parking and servicing situation
- TOD and land use opportunities

These enabling measures seek to set out clear methods for mitigating any potential disadvantages or challenges for the identified groups, while working within the overall Access for Everyone principles.

Comprehensive plans are required in particular for servicing/loading, disability access, taxi/ride-hail access and parking management. The development of these strategies is expected to include innovating measures to ensure people with limited mobility can more easily access the city centre, and that delivery of goods and services in the city can continue to be comprehensive and reliable.

Implementation of the programme

The commercial and management cases set out the preferred way to deliver the preferred option and programme, with key roles and responsibilities for Auckland Council, AT, Waka Kotahi and Mana Whenua.

To manage identified risks, the management case for this PBC sets out the need for a governance structure to hold programme responsibility, engage with stakeholders, and manage the timing and integration of programme in coordination with other city-centre projects. This structure has been recommended to include a dedicated programme director with overall responsibility for the programme.

Cost

The total indicative funding requirement for the programme is \$386.2 million over ten years (P50). This is made up of \$355.5 million in capital and \$30.7 million in operational costs. With the existing RLTP capital allocation of \$30 million taken into account, the total new requirement for funding is \$356.2 million.

The P95 cost of the programme is \$426.6 million over ten years.

The programme includes actions that involve redirecting and influencing the way current workstreams are managed at no extra cost to give effect to Access for Everyone and some of the capital requirement noted above is proposed to augment existing projects to gain additional benefits.

What are the economic benefits, and how big are they? – including, is the project good value for money

The BCR for the Access for Everyone programme is assessed as 2.8. Sensitivity testing indicated a range between 1.7 and 3.3. This indicates that the programme offers good value for money and that the BCR is robust in the context of sensitivity testing.

Does it meet the business case requirements/robustness? And what is next?

The recommended project has been assessed against the NLTP Investment Prioritisation Method. The assessment indicates that the recommended option has:

- **VERY HIGH** Government Policy Statement alignment
- **HIGH** scheduling
- **LOW** efficiency

Applying the Investment Prioritisation 3-factor matrix to the above ratings, the priority order for the programme would be **2**.

STRATEGIC CASE

1 Introduction and Background

This current chapter follows the following structure (see Figure 1-1):



Figure 1-1: Structure for Chapter 1

1.1 Purpose

The purpose of the Programme Business Case (PBC) is to investigate and develop a preferred programme for implementing the concept of Access for Everyone (A4E) using the Waka Kotahi NZ Transport Agency (Waka Kotahi) Business Case Approach.

The City Centre Masterplan outlines a concept for Access for Everyone as the movement network to give effect to the masterplan. This business case is the mechanism through which the City Centre Masterplan's outcomes are brought into the transport funding and delivery process.

Access for Everyone is intended to support the city centre's function and development by managing access and mobility to and within the Tāmaki Makaurau city centre. It is a critical element of the refreshed City Centre Masterplan² (CCMP) adopted by Auckland Council in March 2020.

The PBC is expected to influence a series of future business cases, or workstreams which will achieve the benefits identified. It is expected that these workstreams will be varied across:

- Policy and strategy initiatives
- Co-ordination and management initiatives
- Delivery of new projects requiring new funding
- Redirection of existing projects, under way or funded through other means.

The PBC scope will use the evidence and analysis in this document, centred on the City Centre Masterplan and relevant Council, Waka Kotahi and Auckland Transport (AT) planning documents.

Access for Everyone is part of a wider package of strategic plans for the city centre, based on much higher provision of public transport and active modes. So far, these plans have had limited integration with each other. A role of the PBC will be to show how they fit together and align towards strategic goals. The projects include the current Downtown Programme³ (with its six key projects to help transform the waterfront into an attractive, people friendly environment), City Rail Link (CRL), cycleway projects, bus priority and interchange projects, travel demand management campaigns, safety and speed programmes, as well as optimised management of parking and loading zones.

While the City Centre Masterplan includes a version of Access for Everyone, in accordance with best practice, the starting point for this PBC is the outcomes sought in the City Centre Masterplan and Access for Everyone as expressed within the City Centre Masterplan, while the standard business case methodology is used to rigorously examine the best programme to deliver the outcomes and address the problems identified in an Investment Logic Map (ILM).

² Auckland City Centre Masterplan, Auckland Council March, 2020 <https://www.aucklandccmp.co.nz/>

³ Downtown Programme, Auckland Council, 2019 <https://at.govt.nz/projects-roadworks/downtown-programme/>

1.2 Point of Entry

The City Centre Masterplan represents a strategic case for transport capacity rebalancing in the city centre of Tāmaki Makaurau. The City Centre Masterplan and its supporting analysis therefore provides a key component of the Point of Entry for a PBC. Auckland Transport has also carried out transport studies and business cases in the city centre area, which provide the foundation for a body of strategic evidence that collectively form the basis for the Access for Everyone point of entry at PBC stage.

The PBC is intended to identify a programme of activities and interdependencies which best deliver the benefits identified in the Access for Everyone concept as articulated and endorsed in the Tāmaki Makaurau City Centre Masterplan.

The intended benefits of the Access for Everyone concept in the City Centre Masterplan, include:

- Rebalancing streets to prioritise space-efficient modes of transport and reallocating space for people, operations and street functions within the city centre
- Mode shift with an increase in the number of people walking and cycling in the city centre
- More reliable and higher capacity public transport, with a higher mode share
- Easier access for trips needed to support the city centre such as loading, deliveries, construction and emergency services
- A healthier and safer city centre – improved safety for walking and cycling and reduced emissions and improved air quality
- Greater social and economic activity within the city centre.

2 The City Centre Masterplan and Access for Everyone

The City Centre Masterplan sets out a vision for the heart of the city. Its ten outcomes and eight transformational moves are based on the six outcomes underpinning the Auckland Plan 2050. City Centre Masterplan was endorsed by the Council Planning Committee on 5 March 2020. It was developed with extensive engagement with city centre partners and received 76% support from public consultation. Among respondents, the most popular component of the City Centre Masterplan is its emphasis toward greater priority for pedestrians⁴.

The City Centre Masterplan is a key component of the wider implementation plan in support of the Auckland Plan and the Auckland Unitary Plan (refer Figure 2-1). It contains:

- Outcomes - presenting the overall strategic direction for the city centre and waterfront
- Transformational Moves
- An access strategy (Access for Everyone)
- A suite of Opportunities – specific proposals that give effect to the outcomes and transformation moves.

⁴ <https://www.aucklandcouncil.govt.nz/have-your-say/topics-you-can-have-your-say-on/city-centre-masterplan-refresh/Pages/default.aspx>

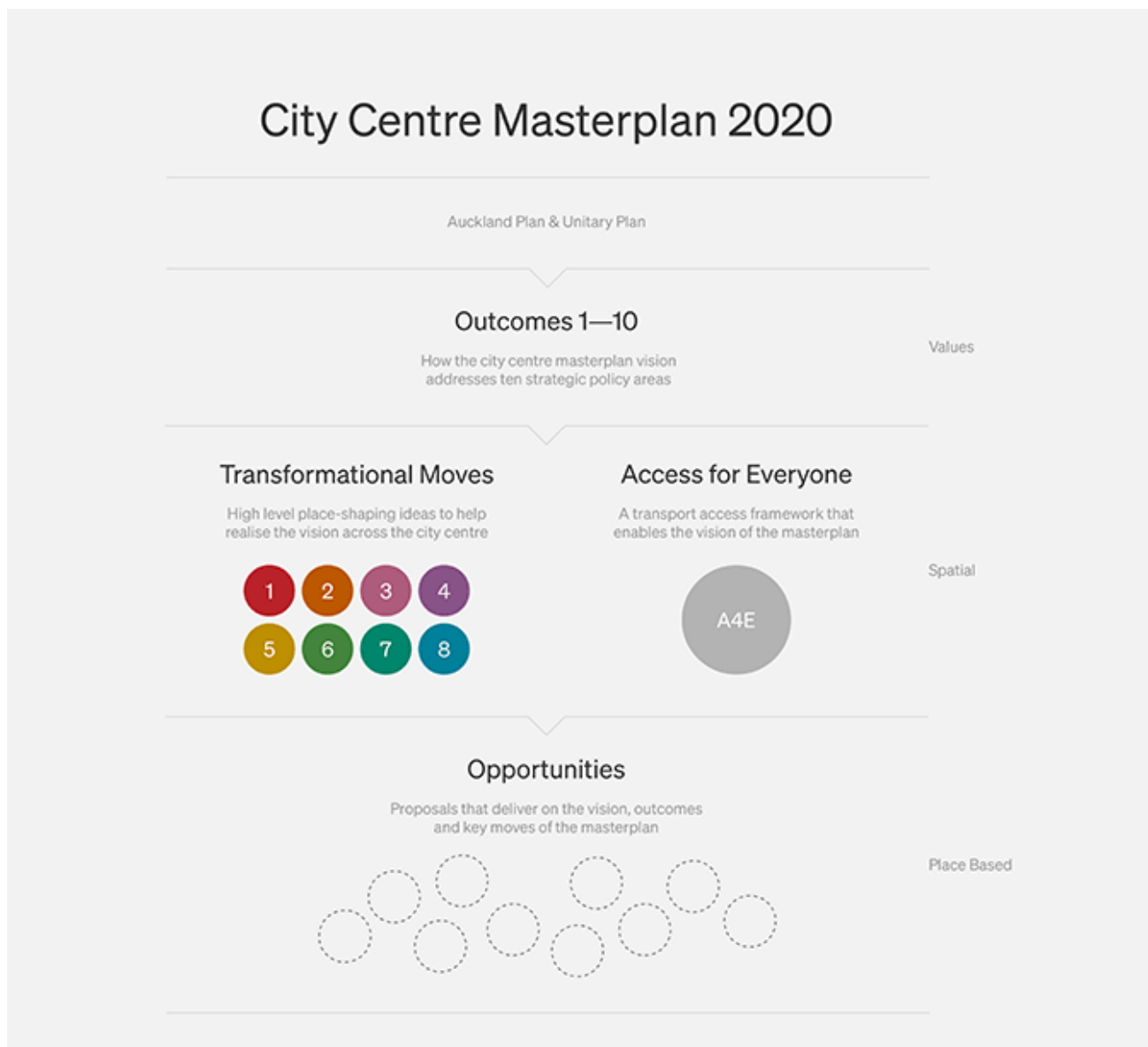


Figure 2-1: City Centre Master Plan strategic structure

2.1 Outcomes

The Outcomes sought by the City Centre Masterplan are intended to set the “*overall strategic direction for the city centre and waterfront*” and are designed to inform a suite of “Transformational Moves”. The ten outcomes are:

Whāinga 1: Tāmaki Makaurau - Tō tātou kāinga i te ao nei

Outcome 1: Tāmaki Makaurau - Our place in the world

Tāmaki Makaurau / Auckland's city centre is a place where we actively recognise and celebrate our historic heritage as a driver of positive change and placemaking.

Whāinga 2 – Te pokapū tāone tūhononga

Outcome 2: Connected city centre

The city centre in Tāmaki Makaurau / Auckland should have safe, healthy and sustainable travel options both inwards and outwards. This will improve people’s access and choice of transport modes.

Whāinga 3 – he pokapū tāone e wātea ana, e tuwhera ana hoki ki te tokomaha

Outcome 3: Accessible and inclusive city centre

This outcome focuses on an accessible and inclusive city centre. We want a city centre that is welcoming to all in Tāmaki Makaurau.

Whāinga 4 – Pokapū tāone tauwhiro taiao

Outcome 4: Green city centre

This outcome is about restoring our biodiversity and ecological systems (Mauri Tu). Doing this will deliver a healthy and happy city centre in Tāmaki Makaurau.

Whāinga 5 – Te ora tūmatanui

Outcome 5: Public life

Public space or realm is the glue that holds the city centre together, the canvas for public life. It needs to work well for everyone who spends time in Tāmaki Makaurau. This outcome aims to for everyone in the city centre to feel safe and comfortable, and experience enjoyment.

Whāinga 6 – Te takiwā noho i te pokapū tāone

Outcome 6: Residential city centre neighbourhoods

Tāmaki Makaurau's city centre is an increasingly popular place to live. As the city centre population grows and matures, this outcome shapes the city centre's public realm, housing supply and social infrastructure to deliver a highly liveable city centre.

Whāinga 7 – Ngā āhuatanga hanga e whai kounga ana

Outcome 7: Quality built form

This outcome aims to deliver a well-designed and planned city centre. It links the City Centre Masterplan and Waterfront Plan to Tāmaki Makaurau's statutory planning and design tools.

Whāinga 8 – Te pokapū tāone whai tuku ihotanga

Outcome 8: Heritage defined city centre

We want to increase understanding, protection and conservation of city centre heritage places, landscapes and stories. Our city centre should actively recognise and celebrate Tāmaki Makaurau's historic heritage as a driver of positive change and placemaking.

Whāinga 9 – Te pokapū tāone tauwhiro taiao

Outcome 9: Sustainable city centre

This outcome aims to shape our approach to transport, air quality, water quality and climate change in the city centre. It focuses on the Auckland Climate Action Framework and Outcome 5 of the Auckland Plan 2050.

Whāinga 10 – Te pokapū tāone taurikura

Outcome 10: Prosperous city centre

This outcome sets out practical ways to develop the city centre so it can continue to thrive as an economic centre and cater for the needs of our diverse population. The city centre will enable business and urban development and deliver a globally competitive quality of life within a flourishing economy.

2.2 Transformational Moves

The City Centre Masterplan is structured around eight transformational moves:



01

Māori
Outcomes

02

The East and
West Stitch

03

Waihorotiu
Queen Street
Valley

04

Innovation
Cradle

05

Rapid Transit
Oriented
Development

06

The Green
Link

07

City to the
Villages

08

Harbour Edge
Stitch

These “moves” relate to achieving the outcomes sought and in most cases are related to improving connections within and to the city centre. Clearly, this has a direct relationship with the transport network, its function and form. Access for Everyone is a concept developed to give effect to these moves.

2.3 Access for Everyone

The form and function of the transport network in its role of moving people and as public realm has a role in delivering each of these outcomes and “moves”. To realise the outcomes and give effect to the “moves” the City Centre Masterplan has developed a strategy called Access for Everyone.

An important note is that while this strategy has the same name as this PBC, is the foundation document and goes into some detail in terms of a transport response to the City Centre Masterplan, this PBC takes a step back from Access for Everyone as expressed in the City Centre Masterplan and carries out problem definition, evidence development and alternative and option assessment.

Access for Everyone is described in the City Centre Masterplan in the following way:

“Access for Everyone (A4E) is a coordinated response that manages Auckland’s city centre transport needs by:

- *limiting motorised through-traffic*
- *prioritising access to city centre destinations*
- *creating new spaces*
- *improving access for servicing, freight and delivery*
- *favouring public transport, walking and cycling.*

Access for Everyone integrates long term planning, city management and investment and provides an opportunity to transform how people and freight move in the city centre. By enabling a decisive mode shift away from private vehicles, it aims to make better use of finite city centre space and improve the quality of the environment”⁵

Access for Everyone is named as a “flagship project” within Waka Kotahi’s Keeping Cities Moving plan⁶, stating:

“Auckland Council ’ s Access for Everyone programme, which seeks to ensure efficient operation of the city centre ’ s rapid transit network and create more space for people to enjoy, will be a flagship programme in traffic management.”

In the City Centre Masterplan, the Access for Everyone strategy seeks to make the city centre’s streets “work harder” to allow the city centre to achieve the outcomes of the City Centre Masterplan. Specifically, the Access for Everyone strategy seeks to achieve:

- *“Traffic circulation system where private vehicles access city centre zones from the city’s edge*
- *City centre managed as a series of low-traffic neighbourhoods, restricting through-traffic*

⁵ City Centre Master Plan <https://www.aucklandccmp.co.nz/access-for-everyone-a4e/>

⁶ Keeping Cities Moving, Waka Kotahi, September 2019, see p.25

- 30 per cent reduction in peak-time traffic levels in Auckland city centre to enable new traffic network
- Mode shift towards public transport, walking, cycling and micro-mobility
- Easier access for people with accessibility and mobility needs
- Better conditions for freight access in city centre, including construction, deliveries and rubbish collection
- More reliable access for emergency services
- Growth in use of smaller, zero-emissions vehicles for city centre transport of people and goods
- Zero-emissions areas in Waihorotiu Queen Street Valley, enabled initially via pilot projects to prioritise pedestrians.⁷

Key to the Access for Everyone concept is the creation of low traffic neighbourhoods and a limiting of cross city-traffic which could achieve a pedestrian priority and low-emissions area in the Waihorotiu / Queen Street Valley.

The Mayor has signed Tamaki Makaurau up to a C40 initiative to have a Zero Emissions Area (ZEA) within the Queen Street valley by 2030, and the Access for Everyone concept will support and enable this to occur. This is discussed further in section 3.5. It will also address the requirements for reducing Tāmaki Makaurau’s carbon intensity within the Auckland Climate Action Framework.

While this PBC is named “Access for Everyone” and has its origins in the City Centre Masterplan and its Access for Everyone component, the PBC considers the *outcomes* sought by Access for Everyone and sets aside the specifics to ensure that the testing process is robust and transparent.

Auckland Transport has undertaken a range of studies, projects and plans for operating the networks and delivering projects within the city centre. These include those that led up to the proposal of light rail (City Centre Future Access Study 1 & 2, Central Access Plan), various public transport, cycling and safety programmes, as well as broader policy documents, such as Future Connect (AT’s integrated network plan), the Auckland Transport Parking Strategy, the Freight Plan, the Auckland Transport Alignment Project (ATAP) and Waka Kotahi’s Keeping Cities Moving and One Network Framework.

⁷ <https://www.aucklandccmp.co.nz/access-for-everyone-a4e/vision-for-a4e/>

3 Programme Context

This section provides the local strategic context for the project. It covers the physical and socio-economic context for the project and how it aligns with the adopted direction and policies of the partner organisations.

3.1 The City Centre

The study area for the business case is illustrated in Figure 3-1 below.



Figure 3-1: Study area

Located on the northern shore of a narrow isthmus, the city centre of Tāmaki Makaurau extends from the waterfront on the Waitematā Harbour southwards along Queen Street and parallel streets. It is bounded by the main motorways, with State Highway 1 forming the southern and western boundaries, and State Highway

16 Grafton Gully forming the eastern boundary. Once referred to as the central business district, the shift to describing it as the city centre reflects its increasingly diverse activities and functions. This includes its emergence as a major concentration of residential population and one of the fastest growing parts of Tāmaki Makaurau and Aotearoa. The city centre covers an extensive area between the waterfront and Karangahape Road from north to south and from Ports of Auckland to Westhaven, east to west.

3.2 Why is the City Centre Important?

The city centre is Tāmaki Makaurau's primary centre. It plays a critical role in the success of both Tāmaki Makaurau and Aotearoa. As noted in the Auckland Plan 2050 *"The city centre is the largest and fastest growing employment centre in New Zealand"*⁸. The Auckland Plan also establishes the city centre as critical to the success of both Tāmaki Makaurau and Aotearoa and that its strength is in its concentration of population and economic activity.

A place of economic importance:

A growing Tāmaki Makaurau population and economy has underpinned strong jobs growth in recent years. Over the last five years the total number of jobs in Tāmaki Makaurau grew by 16% to just over 850,000 in 2017⁹. One of the most significant trends is the growth in jobs in central Auckland (the Waitemātā Local Board area, dominated by the city centre), particularly in the high value professional, scientific and technological services sector. This will help underpin Tāmaki Makaurau's increasing role in commercial, office based, economic activity – a growing proportion of which will be based in the city centre.

There are several important implications of these economic and employment trends:

- The ability to attract highly skilled employees will be increasingly important for employers. Locating businesses in highly accessible, high quality areas will be increasingly important as Tāmaki Makaurau grows
- Enabling highly skilled people to work in close proximity to one another so they can more easily interact will grow in importance as a driver of productivity improvements and economic growth. This will further encourage firms to cluster in major centres
- The concentration of jobs in highly constrained locations, such as the city centre, will increase the importance of transport options that can move people efficiently.

The city centre is a vital economic hub for Tāmaki Makaurau and Aotearoa:

- The city centre is the largest and fastest growing employment centre in Aotearoa. As of 2021 there were 143,000 filled jobs within the city centre. With 8,500 businesses, the city centre accounts for 18% of all businesses in Tāmaki Makaurau. The city centre plays a vital role with the wider Aotearoa economy – contributing 7% of NZ GDP.¹⁰ The city centre contributed more in 2015 to Aotearoa's GDP than all but three other Aotearoa regions: Canterbury (14% of national GDP in 2015), Wellington (14%), and Waikato (8%).¹¹
- Since 2012, city centre employment has increased by almost 25,000 jobs. The employment growth is expected to continue with a further 75,000 people expected to be employed within the city centre by 2048.¹²

⁸Auckland Plan 2050, Development Strategy

⁹ <https://ecoprofile.infometrics.co.nz/Auckland/Employment/Growth>

Accessed 13 July 2018

¹⁰ <https://ecoprofile.infometrics.co.nz/Auckland/Employment/Growth>

Accessed 13 July 2018

¹¹ <https://knowledgeauckland.org.nz/media/1134/tr2017-007-2-pedestrian-connectivity-economic-productivity-auckland-city-centre-scenarios.pdf>

¹² Auckland Plan 2050

- It is home to the highest value import port in NZ¹³. In 2015 economic consultancy Market Economics estimated that Tāmaki Makaurau's port facilitated \$14 billion in value added (GDP) in 2015 or 169,000 job equivalents, representing 20% of the economic activity in Tāmaki Makaurau.

City Centre Employment (2018 - 2048)

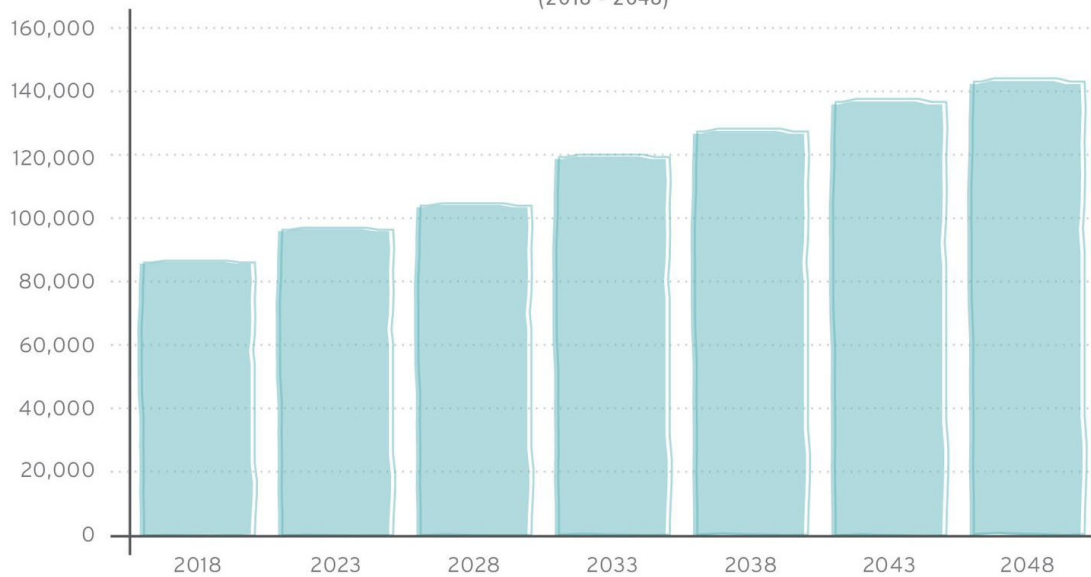


Figure 3-2: City centre employment – MSM¹⁴ forecasted land use (i11.6)

A place to live:

In the past decade the city centre has emerged as a popular place to live - more people now live in the city centre than travel in daily by car.

The number of residents has grown over the last 10 years from 22,000 in 2009 to around 35,000. The city centre is growing rapidly with its population increasing at six times the rate of the Auckland region population¹⁵. Figure 3-3 shows the population growth index of the city centre versus the wider Auckland region and country, showing a large disparity in which the city centre exceeds the Auckland region and Aotearoa.

¹³ NZ Stat Data: Imports for Overseas Cargo (cif NZ\$)

¹⁴ MSM is Auckland's set of strategic transport models and land-use forecasts operated and maintained by the Auckland Forecasting Centre (AFC)r. i11.6 is the recent iteration.

¹⁵ <https://ecoprofile.infometrics.co.nz/Auckland%2bCBD/Population>

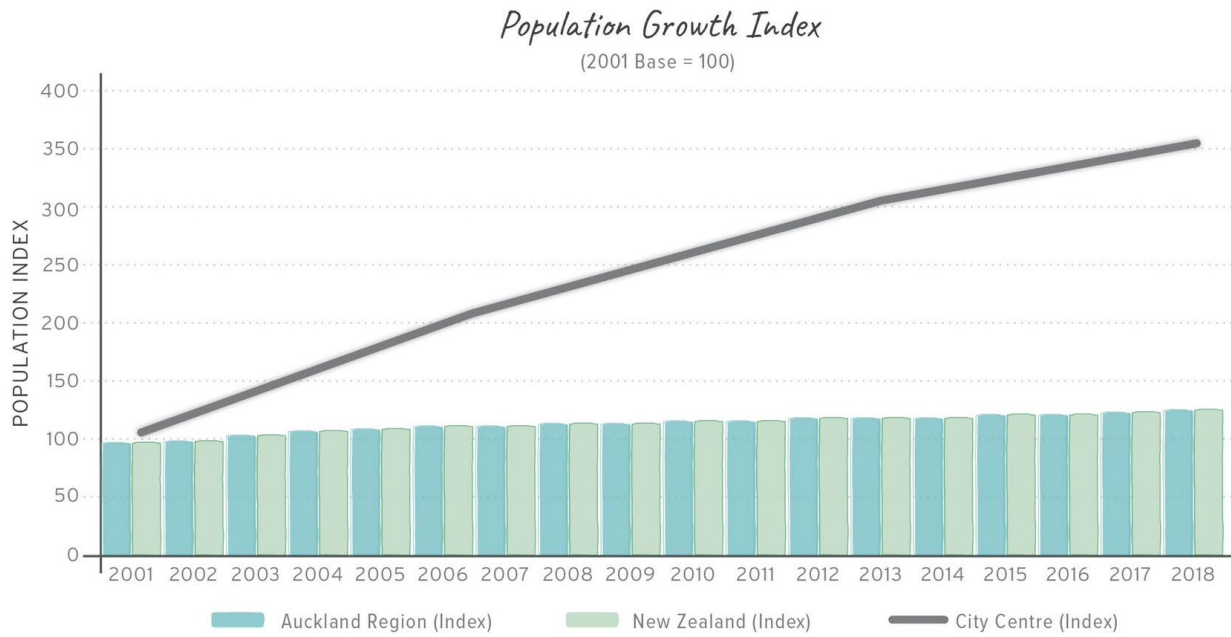


Figure 3-3: City centre population growth index, source: Stats NZ Population Statistics

Population growth is expected to continue. The population of the city centre is expected to more than double between 2018 and 2048.

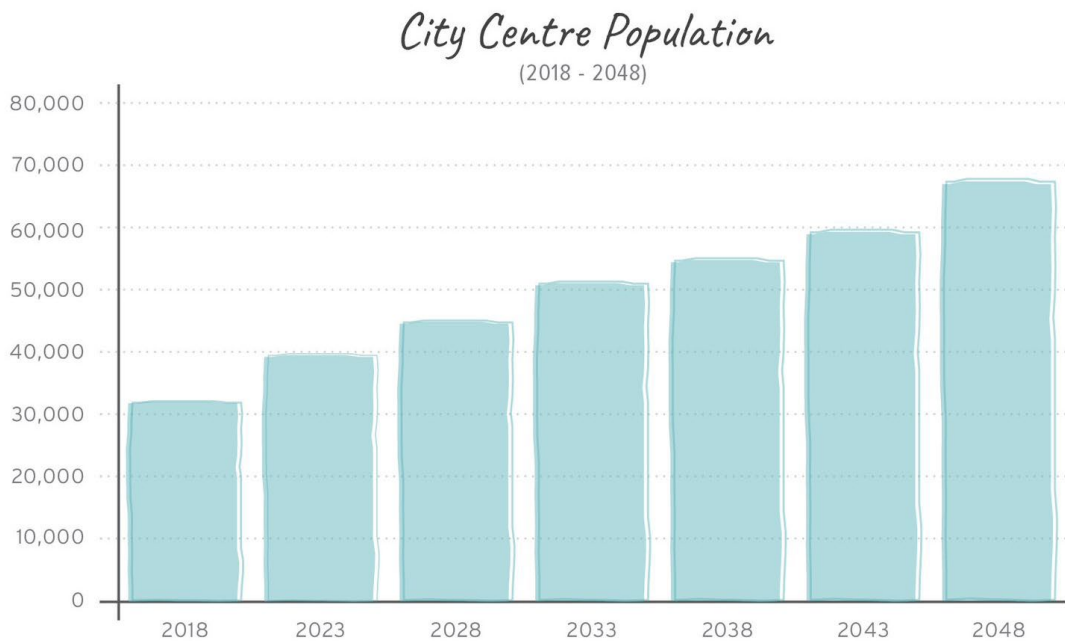


Figure 3-4: City centre population - forecasted land use (source: MSM forecast i11.6)

A place to shop, recreate and visit:

The city centre is the largest location for business, tourism, educational, cultural and civic activities in Tāmaki Makaurau. It is home to key events and cultural centres and spaces including the waterfront, Spark Arena, theatres, galleries, museums and important civic and public spaces such as Aotea Square and Te Komititanga. These are spaces in which Aucklanders come together to participate in the life of their city. The city centre is also a primary location for retail and accommodation:

- It is one of New Zealand's largest retail centres, generating over \$1.6 billion of retail expenditure per annum. The city centre's night-time economy is worth \$450 million annually¹⁶.
- Visitor activity in Tāmaki Makaurau is an important contributor to retail, hospitality and accommodation. Total tourism spend (international and domestic), in the year to March 2019 totalled \$8.3bn in the Auckland region.¹⁷
- The city centre has over 257,500m² of retail floor space¹⁸; over 1,830 individual retail stores out of an estimated 14,409 businesses.

A place to learn:

The city centre is an international centre for learning and innovation, being home to the University of Auckland, AUT University and other learning institutions.

About 43,000 university students¹⁹ attend the two universities and other education providers located in the city centre. With many international students living in the city centre invigorating the city lifestyle, there is a reciprocal value of export education, research and innovation. Export education and training (international students) accounted for approximately \$2.7bn²⁰.

¹⁶ City Centre Masterplan (2020)

¹⁷ City Centre Masterplan (2020)

¹⁸ The City Centre Retail Action Plan (2011)

¹⁹ Domestic student totals from AUT and University of Auckland annual reports 2020

²⁰ City Centre Masterplan 2020

3.3 City Centre Zones

The city centre is often characterised as being made up of a series of distinct urban neighbourhoods or character areas. These areas are sometimes referred to as precincts or quarters in strategy and place-based plans and the City Centre Masterplan considers the city centre in this way.



Figure 3-5: Key city centre areas

The Queen Street valley or Waihoritū, is the city's core. The majority of the city centre's retail is focused within the Queen Street Valley. Centred on Queen Street, it is defined by important city streets (Hobson Street, Quay Street, Victoria Street and Wellesley Street). Downtown sits at the northern end of the valley centred on Britomart Station – the city's busiest train station, and only current city centre station. At the southern end of the valley is Aotea. Aotea is the city's civic centre and cultural, arts and entertainment hub. The Aotea area contains key cultural facilities including the Civic and St James Theatres, Auckland Art

Gallery, Auckland Central City Library, Elliot Street shared space and Aotea Square. The City Rail Link's Aotea Station, will serve the quarter by 2024, consolidating its role as an important destination hub in the city centre.

Over half of the large firms in the city centre are in office-based sectors (such as property and business services and finance and insurance) and are in the Downtown and Waterfront areas.

Victoria Quarter is the historic warehouse and industrial area on the city centre's western edge. It is bordered by Hobson Street, Fanshawe street and Union Street and includes Victoria Park. The quarter has a mix of residential and commercial uses. Residential accommodation is mainly in the southeast, with commercial activities largely on the northern and western sides. The Nelson / Hobson area within Victoria Quarter is the densest area of population in the country.

The **Learning Quarter** is on the eastern side of the city centre and is home to the city centre campuses of the two largest universities in Aotearoa (University of Auckland and AUT University). It has Aotearoa's largest concentration of students, researchers and teachers.

Karangahape Road, known as K Road, is an important historic townscape, on the ridgeline overlooking the Queen Street Valley. By 2024, with City Rail Link construction complete, Karangahape Station should be operational, providing the area with much higher quality access than current. The area is a retail hub.

The **Port of Auckland** provide for a nationally and regionally significant component of Tāmaki Makaurau and Aotearoa's transport infrastructure and trade network. The area primarily consists of land and coastal areas owned or controlled by Ports of Auckland Limited.

Quay Park (Te Tōangaroa), has seen significant commercial and residential development in recent years. The quarter is currently dissected to the east and southeast by the rail corridor and separated from surrounding areas by high volume arterial routes such as Quay Street, The Strand and Beach Road.

Wynyard Quarter is a large-scale, 36-hectare reclaimed area to the west of the city centre. Historically it has been an area for port related industry. In recent years, the marine industry has also established a presence there to service the port and the Westhaven Marina. The area has been under redevelopment since 2011, with the construction of high-quality open space areas, restaurants, cafes, retail, residential and office properties.

Viaduct Harbour sits to the east of Wynyard Quarter and faces onto the harbour and marina. It provides a mix of residential, office, retail and dining activities.

The **Central Wharves** incorporates the area North of Quay Street between the Viaduct Harbour and the Ports of Auckland, including Princes Wharf, Queens Wharf and Captain Cook Wharf. The precinct provides for maritime passenger operations and other marine and port activities, and in parts of the precinct provides for public activities, marine facilities and events, while maintaining public access to the waterfront.

Tāmaki Makaurau's city centre is one of Aotearoa's main docking points for cruise ships. During the summer months, around 300,000 visitors typically arrive on more than 150 ships.

Figure 3-6 and Figure 3-7 show the population and employment density in the city centre respectively, as based on the 2018 census. The majority of residents are clustered along the Hobson Ridge, in the Learning Quarter (both at the southern end of Symonds Street, and along Anzac Street) and within the Waihoritiu/ Queen Street Valley. The core employment areas sit within in the Waihoritiu / Queen Street valley, downtown, midtown and Wynyard Quarter.

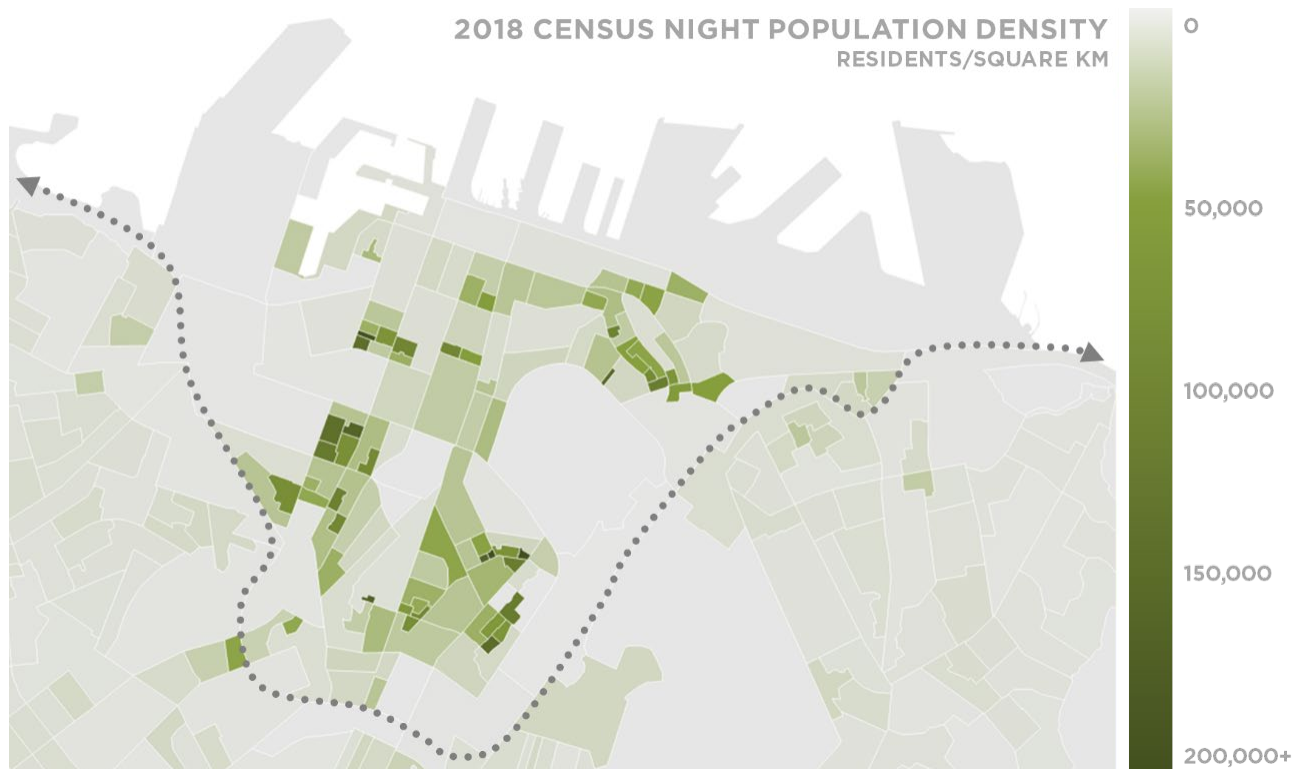


Figure 3-6: 2018 census night population

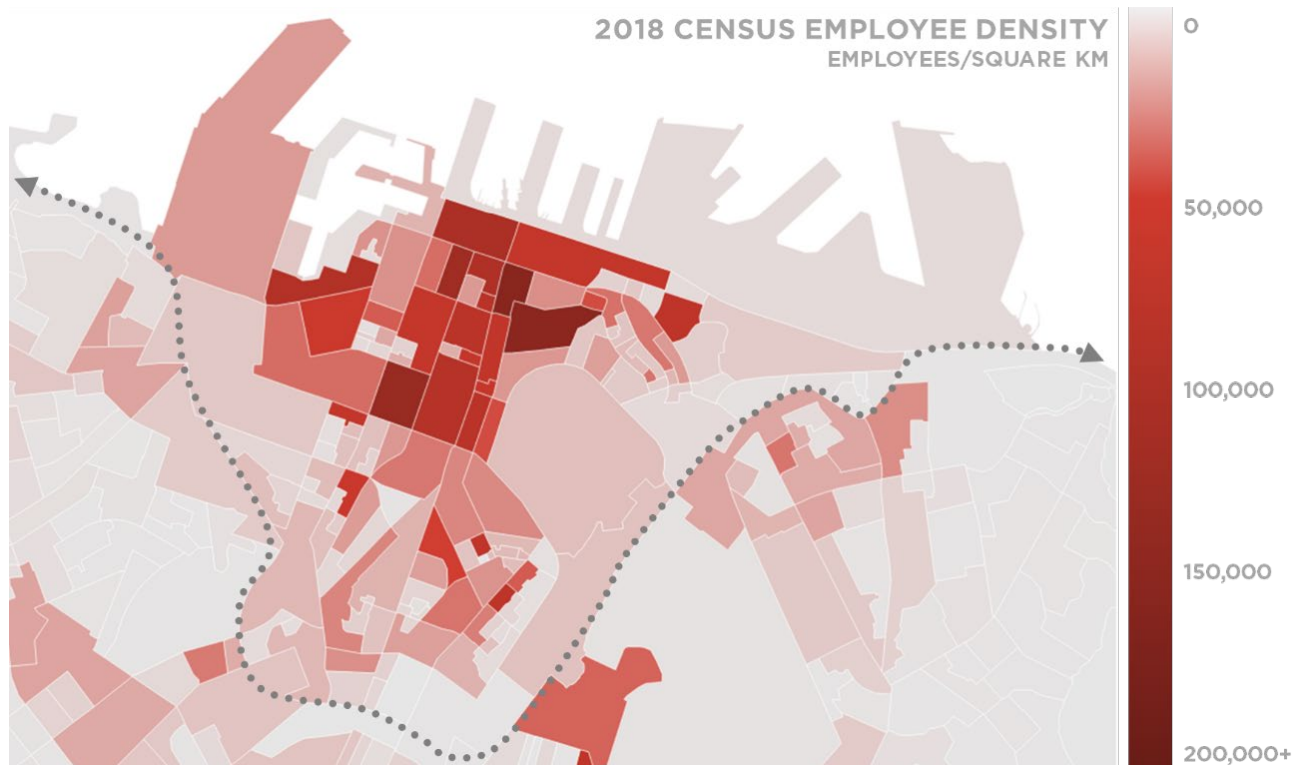


Figure 3-7: 2018 census employees by workplace address (all occupations)

3.4 City Centre Access

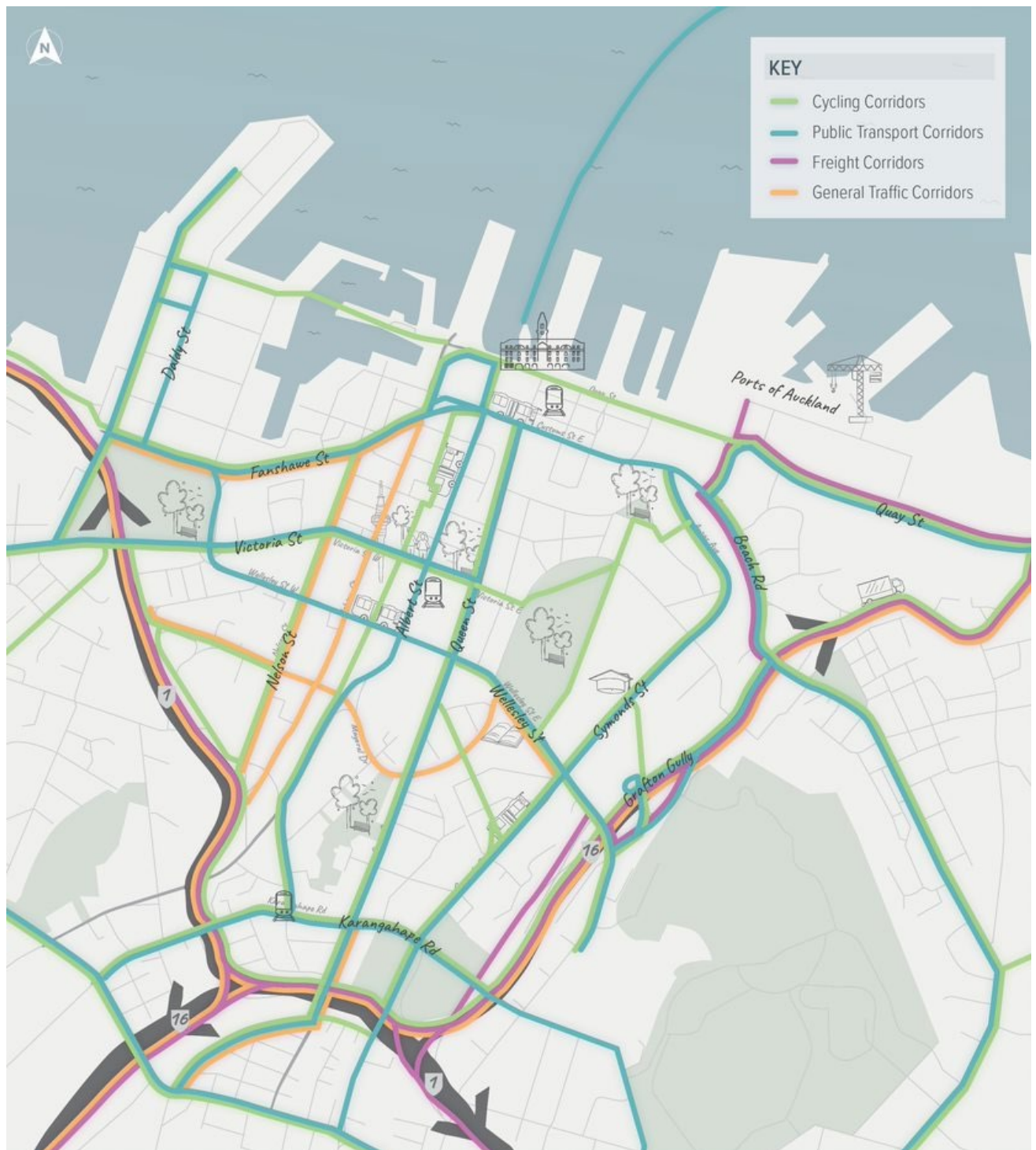


Figure 3-8: Key city centre transport networks (source: Future Connect)

The city centre is physically defined and constrained by its transport system. The city centre is defined on its northern edge by the harbour. While this provides a physical constraint, it also provides access opportunities for ferries and forms a key aspect of the city centre’s unique character. On its eastern and western edges, connected in the south, the city centre is constrained by an at-grade motorway ring that severs the city centre from its fringe neighbourhoods and limits access routes into the city centre.

As the densest place of land use activity in Tāmaki Makaurau, and Aotearoa, the city centre has a complex, multi-modal access system.

Key characteristics are:

Road

The motorway ring that separates the city centre from its hinterland also provides access points for traffic, goods and services while constraining access via local roads for walking, cycling and public transport.

Walking, Cycling and Micro-Mobility

Walking is the dominant transport mode within the city centre, with an estimated 500,000 walking trips per day. Nearly every public transport, car and taxi journey begins and ends with a walking trip.

The city centre is served by several cycleways: Westhaven Drive, Tāmaki Drive, the Te Ara i Whiti (Light Path), Nelson Street, Beach Road, Quay Street, Victoria Street and Grafton Gully cycleways. In addition, there are multiple sections of supporting infrastructure including shared paths through Wynyard quarter.

Rail

All three of Tāmaki Makaurau's rail lines converge at the city centre. Currently they terminate at Britomart Station, but after City Rail Link construction, trains will pass through Britomart and use new or redeveloped stations at Aotea, Karangahape and Mt Eden.

There is the potential in future for additional rail-based corridors from the Isthmus and North Shore.

Buses

Buses are critical to city centre access and carry a significant number of people to and around the city centre. Buses terminating and passing through the city centre carry a large volume of people from the North Shore, North West, Central Isthmus and other city fringe areas.

Ferries

The Downtown Ferry Terminal serves ferries from Devonport, Stanley Bay, Bayswater, Northcote, Birkenhead, Beach Haven, Hobsonville, West Harbour, Gulf Harbour, Pine Harbour, Half Moon Bay, and Waiheke Island.

Freight, Service and Delivery

The Ports of Auckland are at the north eastern edge of the city centre. Nearly three-quarters of the ports' inbound cargo is destined for Tamaki Makaurau. The ports sit alongside Quay Street and feed into the motorway network via The Strand. The ports have a direct rail connection via the eastern line.

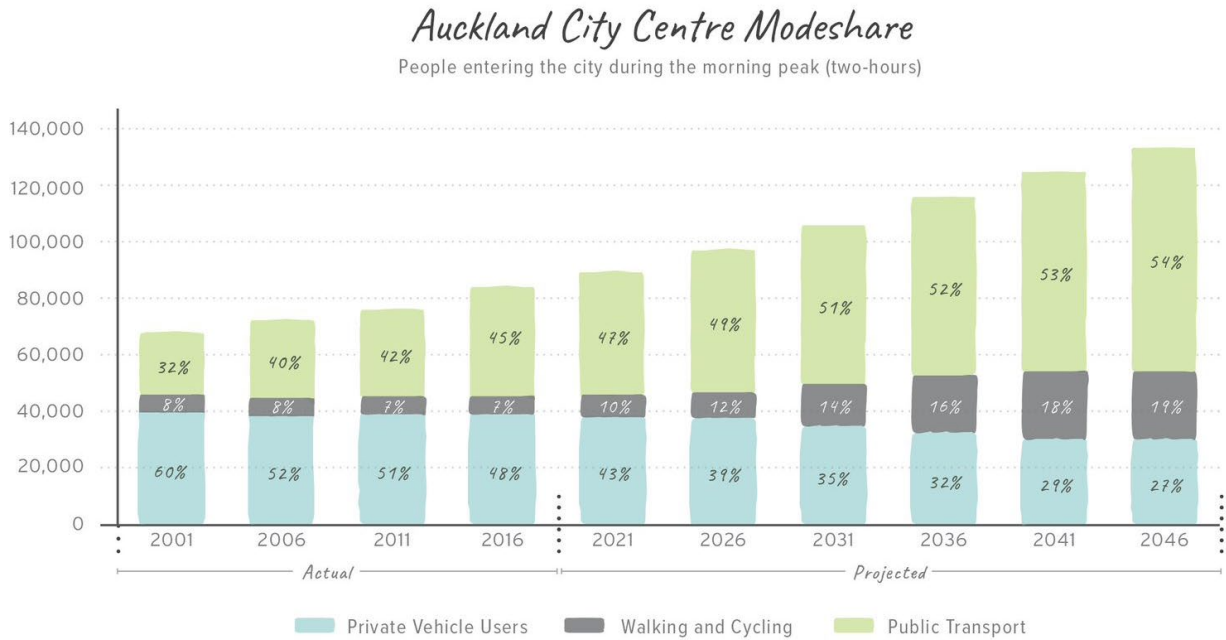
There are approximately 400 on-street loading zones across the city centre.

3.4.1 City Centre Access Metrics

Mode Share

Mode share accessing the city centre has been changing over the last decade and is expected to continue to change, provided that the transport system supports such change. Private car numbers have been static for some time due to the physical and operational constraints of the city centre’s supporting and internal network. There is rapid growth being experienced and forecast in the city centre’s activity (refer section 3.2) resulting in significant growth in the need for people to access the city centre.

All of the current and forecast growth in city centre access is expected to be accommodated by public transport, walking and cycling (refer Figure 3-9). The large increase in walking and cycling is evidence of the increasing city centre population referred to in Section 3.2.



Source: observed city centre mode share and MSM forecasting

Figure 3-9: Tāmaki Makaurau city centre mode – actual and projected

Origins and destinations of trips to the city centre

Figure 3-10 shows the origins of AM peak travel to the city centre. The major origins of city centre travel are the Central Isthmus, the North Shore and the west – with lower volumes of people travelling to the city centre from East and South Auckland.

Origins of Travel to the City Centre

(2028 MSM Forecast - All Modes)

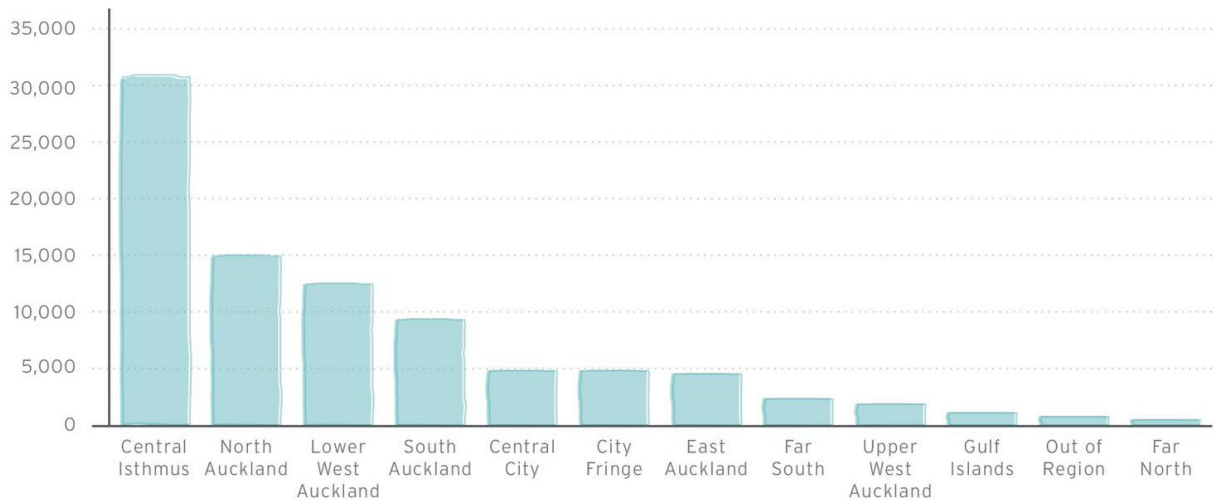


Figure 3-10: Origins of city centre travel AM 2 hour peak (2028) – MSM forecasts

In terms of the main entry points to the city centre, Figure 3-11 indicates the mode share and volumes of trips entering the city centre. It is based on 2028 AM 2 hour peak forecasts and assumes Dominion Road and Queen Street light rail.

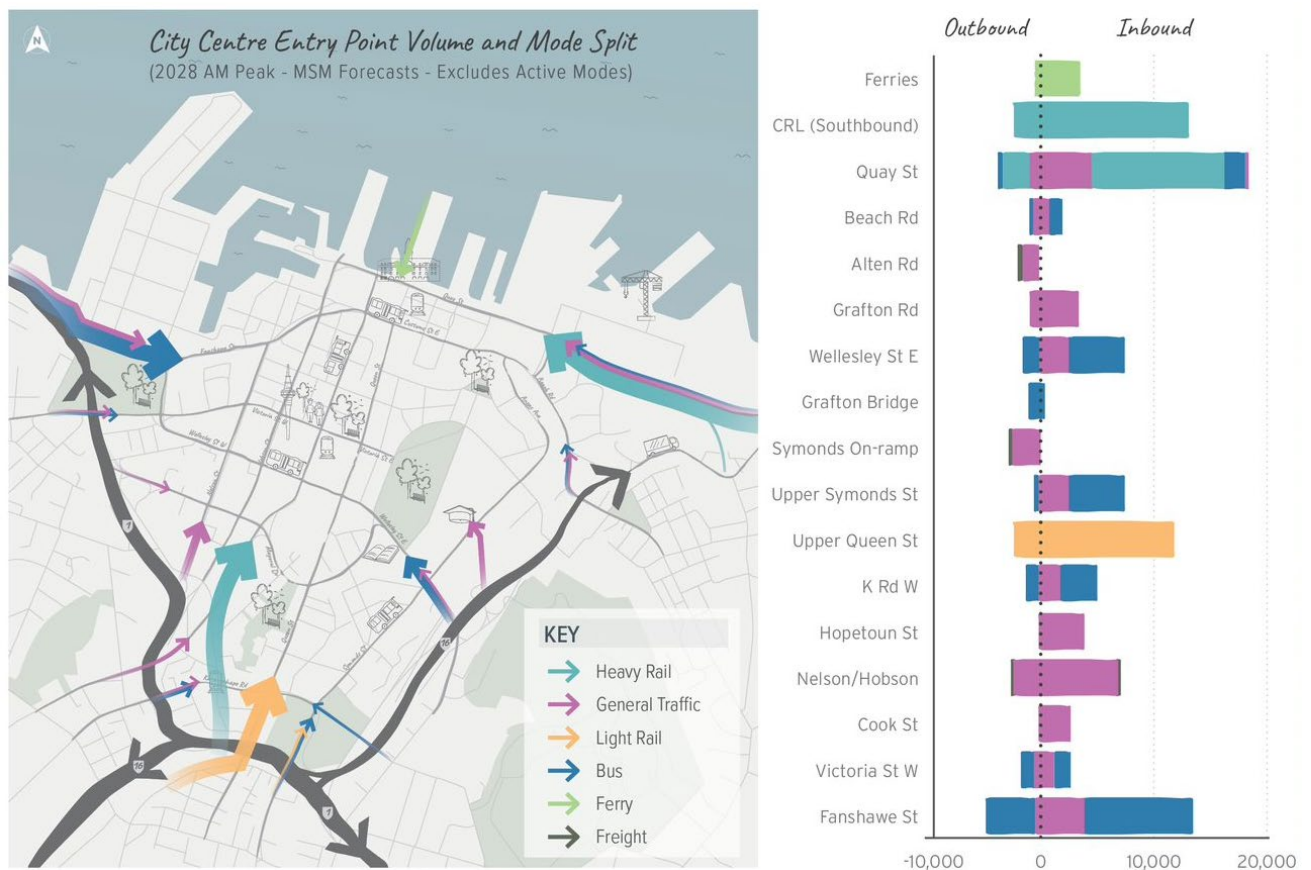


Figure 3-11: City centre entry point volumes by mode (source: MSM forecasts – AM 2 hour peak)

This shows how important public transport is for city access – and how reliant it is on a few critical corridors – particularly Wellesley Street, Fanshawe Street, Symonds Street and the rail corridors. Buses are vital for moving people to, from and around the Tāmaki Makaurau city centre. Currently, almost two thirds of the people arriving by public transport do so by bus²¹. Even with the City Rail Link and potential light rail, over

²¹ 2019 CBD Screenlines

40% of city centre public transport users will still be arriving by bus. Currently, at peak around 350 buses per hour terminate within the city centre and this is forecast to see 25% growth by 2030.

Access for general vehicles is spread over a much larger number of corridors. Fanshawe Street and Nelson/Hobson Streets are of particular importance – carrying almost a third of the total AM peak demand for general traffic.

Travel to and through the city centre

The city centre is a key destination for most trips and has significant issues with limited space for competing needs, as developed further in section 6.

Based on MSM screenline data for the 2 hour am peak in 2028:

- 142,000 people in total will cross in and out of the city centre in am peak
- 71,000 of these people are on public transport, 69,000 in private vehicles, and 2,000 are freight trips

There is a dominance of travel to the city centre in the am peak, reversed in the pm peak. Travel through the city centre is less significant (Figure 3-12). This is likely to be the result of the high density of trips destinations in the city centre (jobs, student places etc) and the motorway ring providing for traffic to cross from one side of the city centre to another. Trips by car using the motorway are not included in this data which includes only trips within the city centre.

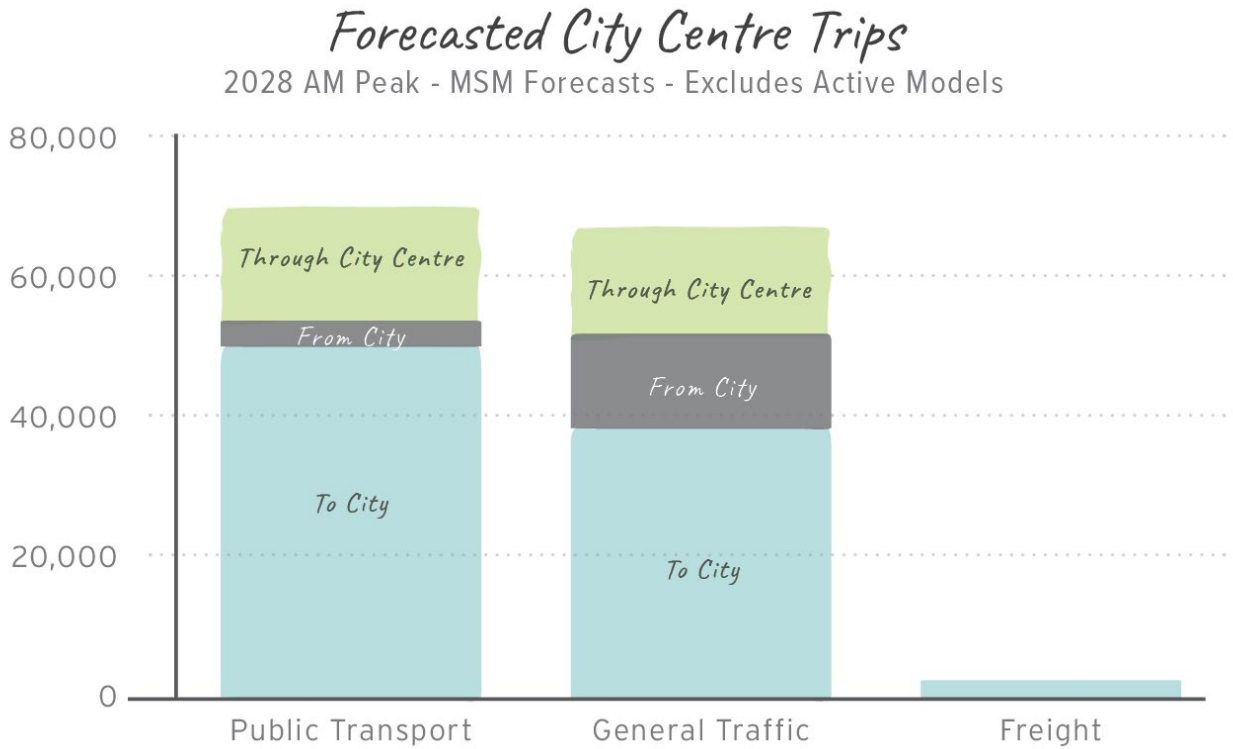


Figure 3-12: City centre trips (2028 AM 2 hour peak, city centre screenline, MSM forecasts - excludes active modes)

To understand the through movements of private vehicles within the city centre, the demands between model zones were assessed.

40,300 people travelling in private vehicles are expected to be going directly to/from the city centre.

Looking at movements crossing the city centre (as depicted in Figure 3-13 below):

- Around 4,400 people are expected to be passing west to east across the city centre (from the North Shore, Ponsonby and the western side of the city to the eastern side of the city, city fringe and the Orakei area). A further 1,900 people were expected to be passing in the opposite direction.
- Around 640 people would be passing between Ponsonby and the North Shore.
- Around 5,000 people (4,900) are expected to be only passing through the city centre to use Union Street. Union Street runs alongside the motorway at the southwestern edge of the city centre. It connects the motorway to Ponsonby via Wellington Street, and to Cook Street. These trips are expected to be to/from the Ponsonby area to the west of the city centre or passing through this area whilst travelling between the North Shore and southern city fringe areas like Eden Terrace.
- An additional 220 internal trips are expected to be passing across from opposite sides of the city centre.

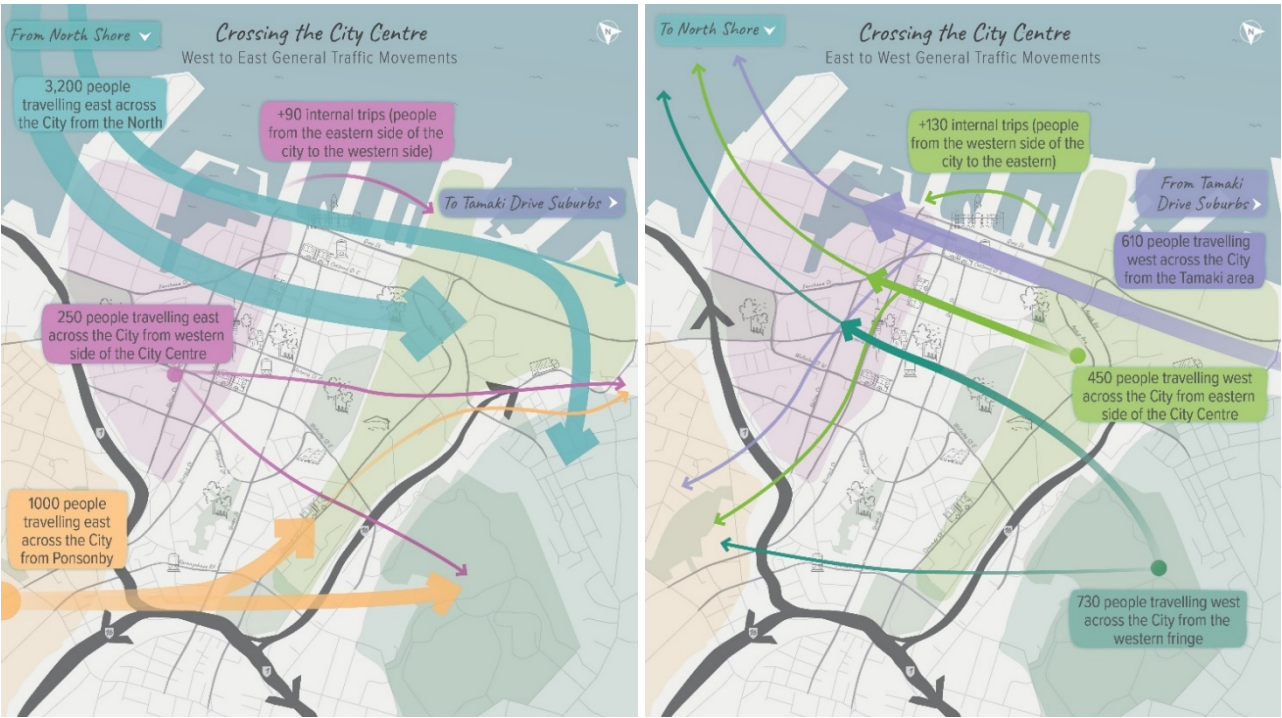


Figure 3-13: Forecasted private vehicle trips (people crossing the city centre) – 2028 AM 2 hour peak

The time of day sees some variation in the city centre’s vehicular access mix. In the morning peak, there is a strong dominance of public transport, given the scale and timing of commuting needs of the city centre’s workforce. In the interpeak, when the density of travel demand is not as high, traffic dominates the access modes. Of note however, more people access the city centre by public transport in the 2-hour am peak than by car through the 6-hour interpeak period (9am - 3pm).

Travel to the City Centre by Mode and Peak

2028 MSM Forecast (ATAP)

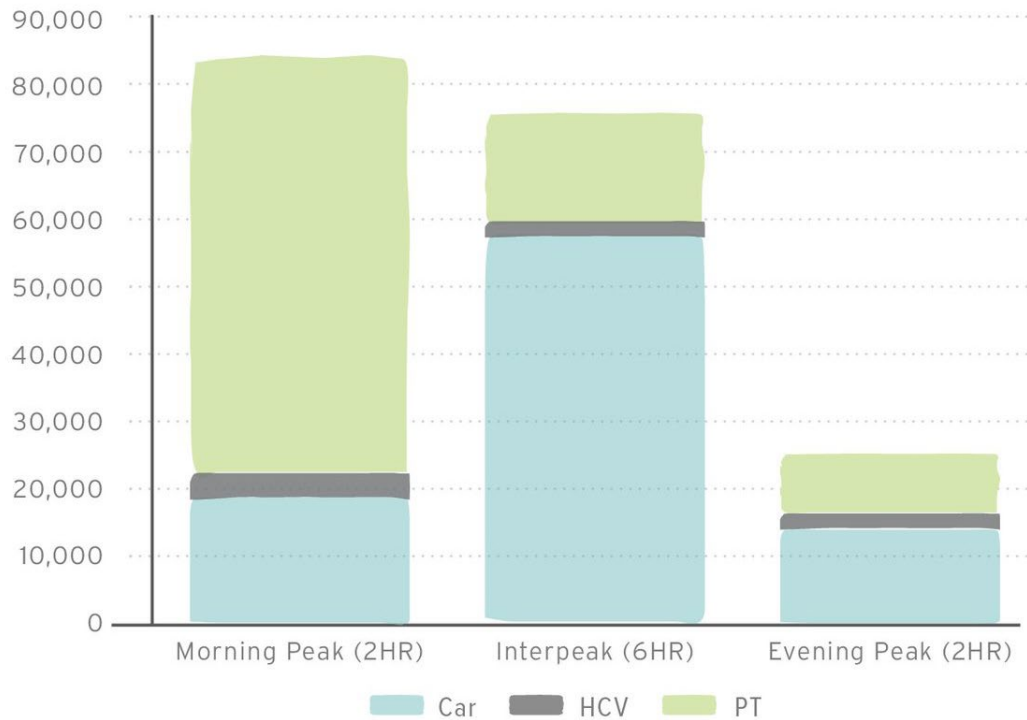


Figure 3-14: Travel to the city centre by mode and time of day (source: 2028 ATAP MSM forecasts)

Freight and servicing

Freight and servicing is a key enabler of economic activity and fundamental to the liveability of a city. The Ports currently handle approximately one million twenty-foot equivalent units (TEUs) annually which is second only to the Port of Tauranga. At its peak, there are 27,000 truck movements per month between the hours of 7am and 7pm. By 2028 an estimated 1,200 trips in AM peak, 1,300 trips interpeak, and 720 trips in pm peak are expected to be made by heavy commercial vehicles to the city centre.

While forecasts do not estimate service and delivery travel separately, the servicing and loading task in the city centre is vital for businesses and residents. Businesses rely on deliveries, couriers and trades to operate effectively and residents also rely on deliveries and services to meet their needs. Based on Auckland Transport AADT counts throughout the city centre, 3-5% of travel to the city centre is estimated to be made by light and medium commercial vehicles. This would equate to between 4,000-7,000 trips per day by 2028. In an environment where space is limited for movement and parking/loadings, these users are considered vital to the city centre’s ongoing role as a place of business and living.

3.5 Climate Change and the City Centre

According to the Climate Change Commission, “Aotearoa has committed to reaching net zero emissions of long-lived greenhouse gases by 2050 and reducing biogenic methane emissions between 24-47% by 2050”²².

²²<https://www.climatecommission.govt.nz/our-work/advice-to-government-topic/inaia-tonu-nei-a-low-emissions-future-for-aotearoa/>

This will require significant reductions in a range of sectors, yet transport is a sector that has seen significant increases in emissions in recent years. Changing travel behaviours and choices is core to the Government Policy Statement on Land Transport (GPS). This is further discussed in section 7.1.

According to Statistics NZ, transport is a major emitter of carbon dioxide and has been responsible for significant increases in the last two decades:

“Carbon dioxide emissions were mainly produced by transport (47.0 percent), manufacturing industries and construction (17.9 percent), and public electricity and heat production (9.4 percent).

- Emissions from transport were up 2.3 percent from 2017 and up 89.7 percent from 1990. Transport emissions were mainly made up by road vehicle emissions (90.7 percent) and domestic aviation (6.7 percent).
 - Road transportation emissions in 2018 were up 2.0 percent from 2017 and up 101.6 percent from 1990. They made up 42.6 percent of all carbon dioxide emissions in 2018”²³.

Auckland Council has adopted Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan²⁴. Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan seeks to reduce emissions by 50% by 2030 and achieve net zero emissions by 2050 (against a 2016 baseline). The plan notes that transport is a major contributor of greenhouse gas emissions in the Tāmaki Makaurau context, contributing 43.6% of Tāmaki Makaurau’s emissions. Cars and light commercial vehicles are the largest single category, contributing 30% of all Tāmaki Makaurau’s greenhouse gas emissions (Figure 3-15).

Auckland's greenhouse gas emissions profile (2016)

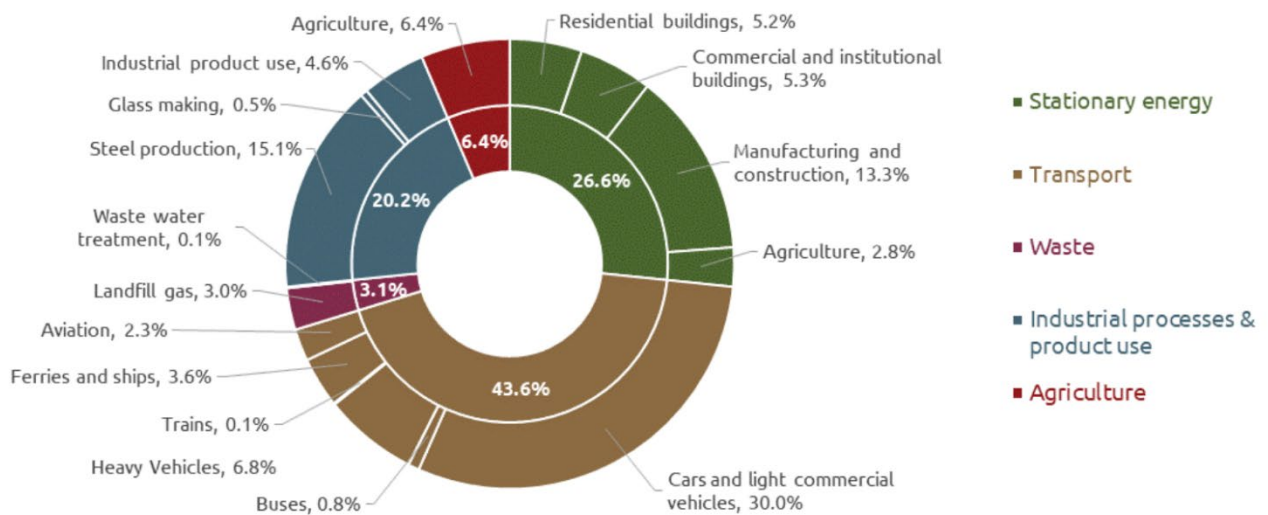


Figure 3-15: Tāmaki Makaurau's greenhouse gas emissions (source: Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan, p.42)

The density of travel to and within the city centre and the extent of the city centre’s catchment (refer section 3.4.1) means that addressing private vehicle use to and within the city centre can significantly contribute to the outcomes sought in Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan. The density of existing, committed and proposed alternatives to travel by private vehicles to the city centre means that there is significant potential to achieve mode shift to support these outcomes.

²³ <https://www.stats.govt.nz/indicators/new-zealands-greenhouse-gas-emissions>

²⁴ <https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-by-laws/our-plans-strategies/topic-based-plans-strategies/environmental-plans-strategies/aucklands-climate-plan/Documents/auckland-climate-plan.pdf>

Action Area B9 “Establish and quickly scale low carbon, resilient precincts across Auckland” specifically references an action to “deliver a zero emissions area in the city centre and apply lessons learnt to other urban centres” indicating clearly a desire to make changes to the fleet and circulation patterns for traffic in Tāmaki Makaurau’s city centre and to achieve climate goals and to use this as a forerunner to wider implementation.

In the specific context of the city centre, the C40 Cities initiative connects 97 of the world’s greatest cities to take bold climate action, leading the way towards a healthier and more sustainable future. Representing 700+ million citizens and one quarter of the global economy, mayors of the C40 cities are committed to delivering on the most ambitious goals of the Paris Agreement at the local level, as well as improving air quality for people in cities.

Auckland Council has committed to this initiative. The City Centre Masterplan specifically references the C40 initiative in discussing the propose Zero Emissions Area in Queen Street as part of the Access for Everyone strategy:

“Our plan will in part be delivered by the council’s existing commitment to the C40 Fossil Fuel Free Streets Declaration to procure only zero-emission buses from 2025 and crucially creating a ZEA in the city centre by 2030.”

Tāmaki Makaurau’s Mayor is quoted recognising the connection between transport emissions and air quality in the city centre and the C40 commitment:

“A more compact city with greater reliance on electric-powered public transport will play a critical role in reducing carbon emissions from transport, which make up 40 per cent of the city’s global warming gases. This will also reduce the high levels of black carbon pollution in the city centre.

“Promoting walking and cycling will also reduce emissions and contribute to a better and more healthy population”²⁵.

The intent to deliver significant mode shift and air quality improvements in the city centre of Tāmaki Makaurau is clearly mandated and a core part of Tāmaki Makaurau and Aotearoa’s climate change response.

²⁵ <https://ourauckland.aucklandcouncil.govt.nz/news/2018/12/global-recognition-for-auckland-leadership-on-climate-change/>

4 Concurrent Workstreams

There are a range of workstreams currently underway in the city centre, at various levels of planning and implementation. Access for Everyone will need to integrate with these various projects and has a role in their staging. The interaction with these workstreams in a place as dense as the city centre is intricate. Delivering the outcomes sought by Access for Everyone as expressed in the City Centre Masterplan and delivering a co-ordinated framework of delivery in the city centre would not only align with, but also enhance the benefits of many of these workstreams, while timing and sequencing can reduce the disbenefits, for example through disruption.

City Rail Link (CRL)

The City Rail Link project is building a 3.45km twin-tunnel underground rail link from Britomart Station to connect with the Western Line near Mount Eden station. The project involves building new stations at Aotea (between Victoria Street and Wellesley Street) and Karangahape Road, as well as making Britomart a through station and replacement of Mount Eden station.

City Rail Link construction requires traffic disruption and street closures until 2024 including Wellesley Street, Victoria Street, Albert Street, Pitt Street and around Mercury Lane. The city centre station areas and station oversite will be major redevelopments.

When fully operational, 54,000 passengers an hour will use CRL stations at peak times. As a result, this is expected to trigger a need for more people space, particularly around the new stations (Aotea and Karangahape).

Wellesley Street Bus Corridor

The Wellesley Street Bus Corridor is planned to be a bus-only section between Elliott Street and Mayoral Drive. Currently Wellesley Street is bus-only westbound from Lorne Street to Queen Street. With this, Wellesley Street becomes the primary east-west link for buses through the city centre. This is expected to lead to a significant increase in the number of pedestrians along the corridor, boarding and alight public transport services. Wellesley Street Bus Corridor is being delivered in two stages: Stage 1, area surrounding Aotea Station corresponding with opening of the City Rail Link; Stage 2 is currently in detailed business case stage and covers the remaining corridor, including the bus interchanges/ hub points.

Downtown Investment Development Programme

The Downtown Programme aims to create an improved connection with the Waitematā Harbour. The six projects are now opened for public usage. As a result, the downtown area has seen growth in the number of pedestrians and cyclists in the area.

Te Hā Noa Victoria Street Linear Park

The first stage of the linear park is being delivered in conjunction with the City Rail Link Aotea Station construction that will add two busy station entrance portals within the street either side of Albert Street. Longer term, the City Centre Masterplan continues to promote a linear park the full length of the midtown area either side of the Waihorotiu / Queen Street Valley, linking Albert Park in the east with Waitarau / Victoria Park in the west. The project will reduce vehicular traffic function and space allocation on Victoria Street, including for public transport services, to unlock significant space reallocation in favour of pedestrians and public space.

High Street Pilot

Auckland Council and AT, with key project stakeholder Heart of the City, have used a co-design approach to engage with residents, businesses, property owners and managers to create a more accessible High Street. Physical works on the High Street concept pilot were completed at the end of May 2020. With more space allocated to pedestrians, this is expected to create a higher quality amenity, and increased pedestrian flow.

Connected Communities

Connected Communities is currently (as of 2021) at an SSBC stage. The proposal is to reallocate road space in an integrated manner, which considers the needs of public transport, cycling, pedestrians, and general traffic whilst making Tāmaki Makaurau's arterial roads safer. The solution is expected to generate a network of bus and cycle lanes.

Connected Communities is investigating improvements on Symonds Street, Grafton bridge and Beach Road from Parnell. When complete, it is expected to increase the amount of space allocated to active modes and public transport and improve mode shift to the Learning Quarter and city centre.

Optimisation Programme

The Optimisation Programme PBC was approved in April 2020. It focussed on improving people and goods movement to deliver improved network productivity, agility and reliability. It considered the impact of network management, capacity creation and behaviour change on congestion.

Waka Kotahi and Auckland Transport are planning to scale up Network Optimisation, with indicative investment profiles of \$330 and \$400 million. Next steps for this work is to complete a joint SSBC with Waka Kotahi to identify in detail the first one to three years of projects and initiatives, by early 2021.

Road Safety Programme

A PBC helped develop the 10-year programme for Road Safety for the Auckland Transport network. The preferred programme contained a combination of investment in infrastructure and non-infrastructure responses to the problem of increased deaths and serious injuries on Tāmaki Makaurau's roads. Lower speed limits have been introduced across much of the city centre, which is expected to reduce the number of crashes occurring within the city centre.

City Centre Light Rail

In March 2021, the government announced the next steps for the City Centre to Māngere (CC2M) project. This will almost certainly have a section in the city centre and require a response from the city centre's transport system.

The Minister announced an Establishment Unit would be formed with a 6-month work programme including:

- Progressing a business case to enable decisions to be made on mode and route, and providing cost estimates (which are mode and route dependent) and funding and financing options
- Partnering with Māori to identify opportunities
- Engaging with stakeholders and communities
- Determining the best form for the delivery entity.

Should the project be progressed it is expected to increase public transport patronage to the city centre significantly and create the need for more public space. Considering the unknowns with the Auckland Light Rail project, it has not been assumed as part of the do-minimum (as covered below in section 9.2). However, should the project be progressed, it would have a significant impact on the recommended programme and staging. This is discussed in more detail in Section 12.

City Centre Bus Plan

Auckland Transport (AT) and Auckland Council released the City Centre Bus Plan in July 2021 which outlines the proposal for the city centre bus network and infrastructure over the next 10 years. The plan seeks to ensure the bus network continues to meet demand, operates efficiently and delivers the outcomes of the City Centre Master Plan. The plan proposes three key steps:

- Step 1: Create two dedicated east-west bus corridors on Customs Street to Fanshawe Street and on Wellesley Street, which is more efficient and has safer stops.

- Step 2: Establish dedicated facilities for bus customers. These facilities would include safe and comfortable waiting spaces, facilities for drivers and bus charging facilities.
- Step 3: Create bus routes that run through the city centre, rather than ending there. This would free up at least one kilometre of kerbside space that could be repurposed for public spaces or other city centre needs.

Consultation for the plan was undertaken between July and September 2021, and as of September 2021, Auckland Transport is working to finalise the plan and deliver a Business Case (2021-2024).

The Queen Street Project

Being run by Council, there is a project which is proposed to complete construction in September 2022 to improve Queen Street. In particular, the project proposes to:

- Additional footpath space
- Improved materials and planting
- Space for cyclists and scooters
- Space for public transport
- Removing the ability for cars to travel the length of Queen Street

Other concurrent projects include the Auckland Cycle Programme Business Case and a programme business case for ferries.

5 Partners and Key Stakeholders

This section outlines the key partners to the business case who will have a responsibility for delivering on the investment and identifies key stakeholders who have an interest in the expected outcomes or can influence the investment proposal.

5.1 Organisational Overview



Waka Kotahi is responsible for giving effect to the Government Policy Statement on Land Transport (GPS), which sets out the Government’s strategic direction for investment in the land transport network. Waka Kotahi’s responsibilities encompass planning and funding activities, supporting public transport, building the networks that connect communities, and ensuring the people and vehicles that use the system are safe to do so. One of the principal responsibilities for Waka Kotahi in Tāmaki Makaurau is the effective operation of the city’s motorway network.

Waka Kotahi has a number of roles in respect of Access for Everyone, including an overall role in ensuring the implementation of the Government Policy Statement and the mode shift, travel choice, safety and urban development outcomes sought. Waka Kotahi operates the state highway network which has a key supporting role in the city centre’s access system.



Auckland Council is the unitary authority responsible for all local government decisions and responsibilities in Tāmaki Makaurau.

Functions of the Council that are particularly relevant to this project include:

- Preparing and giving effect to the Auckland Plan, a long-term strategic document that guides the region’s growth and development over the next 30 years and integrates social, economic and cultural objectives.
- Regulatory functions relating to the Unitary Plan, which is the ‘rulebook’ that shapes growth under the Resource Management Act.

Auckland Council has developed and endorsed the City Centre Masterplan and the Access for Everyone concept. Council is also a key owner of improvements within and to the city centre. As a result, it has a vital role in the definition and delivery of Access for Everyone.



Auckland Transport (AT) is a Council Controlled Organisation of Auckland Council. Auckland Transport is responsible for all the region's transport services (excluding state highways) – from roads and footpaths to cycling, parking and public transport. Auckland Transport is also responsible for the critical planning documents, the Regional Land Transport Plan and the Regional Public Transport Plan.

As the road controlling authority and operator of the public transport system, Auckland Transport is the core owner of the transportation system and is responsible for its implementation and management.

The project partners have already endorsed the City Centre Masterplan and committed to implementing Access for Everyone. To this end, the partners have established a joint working model to develop the Access for Everyone PBC including:

- A Project Control Group (PCG) made up of senior executives from each agency that meets at key milestones and is responsible for approval of outputs at key junctures and direction of the PBC
- A Project Working Group (PWG) made up of senior managers from each agency that meets fortnightly to overview project progress, methods, outputs and co-ordinate engagement with key internal and external stakeholders.

This working mode for the PBC is linked to the existing wider engagement and governance structures that support the city centre's workstreams.

5.2 Mana Whenua

Recognising Te Tiriti o Waitangi, Mana Whenua are a key partner in the delivery of outcomes. Government agencies will work with Mana Whenua as partners to build strong, meaningful and enduring relationships to achieve mutually beneficial outcomes.

5.3 Key Stakeholders

A wide range of stakeholders have an interest in or may be able to inform and shape the project outcomes.

Table 4 below includes identified stakeholders. Note that stakeholder involvement is also contingent on the level of detailed feedback sought. For instance, local boards would be interested in the whole of life of the project, whereas individuals may be interested in more immediate land impacts.

A Stakeholder and Engagement Strategy has been developed for this PBC.

Table 5-1: Programme stakeholders

Partner/ Stakeholder / Organisation
Auckland Transport
Waka Kotahi NZ Transport Agency
Auckland Council
Mana Whenua
City Centre Masterplan Reference Group
Service and Loading Reference Group
Disability Advisory Groups
City Centre Advisory Board
Waitematā Local Board
Waitematā Ward Councillor
Auckland Central MP Chlöe Swarbrick
Heart of the City
Karangahape Business Association
City Centre Residents Association

5.3.1 Engagement to Date

In the development of the City Centre Masterplan, Auckland Council consulted with the public. Public feedback for the City Centre Masterplan ran from 9 September to 18 October 2019.

The engagement included:

- an online feedback form on the Council's Have Your Say website
- a link sent to the People's Panel
- hard copy feedback forms available, that could be collected and returned via email, post or in person
- ongoing engagement with stakeholder groups to prompt them to provide feedback
- an extensive public awareness campaign to raise awareness of the engagement process and opportunity to participate.

During the feedback period, 542 pieces of public feedback were received. Overall, 76% of participants supported the general direction proposed and 10% did not support it²⁶.

The most frequently mentioned theme in support of the plan was its direction towards greater pedestrian friendliness in the city centre. This was welcomed by many participants, who wanted to see the city centre becomes more people-centric and less dominated by cars. Some talked about removing/limiting vehicle access and/or reducing vehicle speeds in the city centre.

The Access for Everyone proposal was positively received with 82% support and stakeholder submissions were also broadly supportive of this proposal. A significant theme for the Access for Everyone proposal was that this was critical for Tāmaki Makaurau’s future, and should be an urgent priority

The following themes were common in feedback comments:

- This is much-needed and overdue – get on with it
- Support the idea to remove/limit vehicle access and improve options and safety for active modes
- Needs to be supported by improved/more/easier/affordable/safer public transport
- Separate paths needed for cyclists, scooters, and pedestrians
- ‘Everyone’ includes drivers - vehicle access needs to be balanced/considered.

²⁶ <https://www.aucklandcouncil.govt.nz/have-your-say/topics-you-can-have-your-say-on/city-centre-masterplan-refresh/Documents/city-centre-masterplan-consultation-summary.pdf>

5.4 Results Alignment, Appropriateness and Efficiency

5.4.1 Prioritisation of the Proposed Investment

The priority for the potential investment in Access for Everyone has been assessed in accordance with the Waka Kotahi *Method* for the 2021-24 National Land Transport Programme²⁷. This Investment Prioritisation Method requires the assessment of three factors – Government Policy Statement alignment, Scheduling and Efficiency. The assessment against each factor is outlined below.

Government Policy Statement Alignment

Government Policy Statement alignment indicates the alignment of the proposed project with a strategic priority and identifies the potential contribution to achieving it. A rating of Very High/High/Medium/Low alignment is applied. It is noted that where a project contributes to more than one strategic priority, the rating is assigned based on the highest expected contribution to a single strategic priority²⁸.

The alignment for Access for Everyone is contained in Table 5-2 below.

Table 5-2: Government Policy Statement Alignment

Item		Assessment	Comment
Safety: Impact on social cost and incidences of crashes	<i>Target medium high or high collective risk corridors or intersections to achieve a death and serious injuries reduction of ≥40% over a 5-year period</i>	VERY HIGH	The recommended programme is expected to significantly reduce vehicle volumes throughout the city centre and is expected to lead to a significant reduction in crashes and crash risk city-wide. It removes traffic from sections of corridors with high volumes of vulnerable users and high concentration of crashes (such as Symonds Street, Customs Street, Victoria Street, Queen Street, Karangahape Road) and will lead to an 80-90% reduction in deaths & serious injuries in these high risk areas. The eight corridors in the city centre that are included in the top 25 high risk routes in the Auckland region (2012-2016 data) are all expected to have a significant reduction in Deaths & Serious Injuries. The circulation plan creates a series of low traffic neighbourhoods across the city centre to change travel behaviours and reduce traffic volumes.
Climate Change: Impact on GHG	<i>>6% reduction in private vehicle kilometres travelled - can use change in AADT as a proxy</i>	VERY HIGH	With circulation changes throughout the city centre there is expected to be a substantial reduction in general traffic movements throughout the city centre, and as a result emissions reduction. The programme envisages a zero emissions area (ZEA) in the Waihorotiu Queen Street Valley.

²⁷ Investment Prioritisation Method for the 2021-24 National Land Transport Programme, Waka Kotahi December 2020

²⁸ Ibid, p.11



		Based on 2028 forecasts, the recommended programme is expected to reduce CO ₂ emissions by 18,000 tonnes annually, reduce daily vehicle trips to/from the city centre by an estimated 15%, and reduce vehicle kilometres travelled by an estimated 284,000km per day.	
Impact of air emissions on health / Impact of noise and vibration on health	<p><i>Up to 15% reduction (local) population exposed to elevated concentrations of land transport-related air pollution (NO₂)</i></p> <p><i>≥11% reduction in local population exposed to excessive traffic noise level</i></p>	HIGH	<p>With circulation changes throughout the city centre there is expected to be a substantial reduction in general traffic movements throughout the city centre, and as a result air quality and noise level improvements.</p> <p>Creation of significant spatial separation between people and traffic on most streets along with reduced traffic volumes is expected to lead to significant reductions in harm from emissions and noise. The zero-emissions area proposed for Waihorotui Queen Street Valley will remove all emissions and most traffic noise from the most intensive receiving environment.</p> <p>With 16% of the city centre's night population living within the Queen Street Valley, the recommended programme is expected to have a HIGH alignment with the Government Policy Statement.</p>
Better Travel Choices	<i>>6% change in share of private passenger vehicle-based trips to other modes*</i>	VERY HIGH	In the do-minimum scenario (2028) an approximate 247,000 trips are estimated to be made by private car to/from the city centre. The recommended option is expected to reduce this number by 37,000, of which, 6,000 trips would be shifted to PT. This is expected to reduce the mode share of car trips out of all vehicle-based (car or public transport) trips by 7%. This mode shift estimate excludes active modes, which are expected to increase significantly. As a result, mode shift is expected to exceed 7%. This leads to a VERY HIGH alignment.

The highest metric relates to safety which focuses on the impact on social cost and incidences of crashes. The rating of the corresponding metric would be **VERY HIGH**. A **VERY HIGH** rating indicates that both the extent of alignment and scale of the expected contribution are well aligned with the strategic priority.

Scheduling

Scheduling in the method relates to either of two factors: *criticality* and *interdependency*.

- Criticality is the significance of the project's role as part of the network, and the degree of impact to users, particularly due to availability (or not) of alternatives.
- Interdependency refers to the degree to which the project is necessary to unlock the benefits of another related or integrated investment. The other investment may be part of the same transport programme or package, or a major housing or industrial development or international event.

Similar to the rating of Government Policy Statement alignment, a rating of High/Medium/Low is applied.

Access for Everyone is highly interdependent with a range of other programmes, projects and workstreams occurring within Tamaki Makaurau. As the main role of Access for Everyone is to manage city centre circulation, it has high interdependencies with most project interfacing with the city centre and its transport connections. For example:

- Rapid transit and public transport projects such as the Auckland Light Rail, North West Rapid Transit improvements and the Auckland Accelerated Programme Northern Corridor improvements (Northern Busway) as well as the City Centre Bus Plan. All of these projects are centred on/ connect into the city centre. Queen Street improvements are integral in enabling light rail, and Customs Street Transit Street for enabling the City Centre Bus Plan.
- The northern cycling connection to the city centre is highly dependent on improvements to connect the Northern Cycle Connection into and through the city centre.
- Connected Communities is dependent on interfacing with improvements on Symonds Street, Anzac Avenue and the Learning Quarter.
- The City Rail Link (due to be completed by 2024) is not depending on Access for Everyone, however improvements to pedestrian area around stations will enhance the ability of the City Rail Link to deliver benefits.

Considering this, Access for Everyone meets the **HIGH** criterion of interdependency.

Efficiency

Efficiency indicates the expected return on investment and considers the whole of life costs and benefits. BCR is generally used for looking at monetised impacts of the investment.

For this business case, the BCR is 2.8, which gives an **LOW** rating.

Overall Priority

The recommended project has been assessed against the NLTP Investment Prioritisation Method. The assessment indicates that the recommended option has:

- **VERY HIGH** Government Policy Statement alignment
- **HIGH** scheduling
- **LOW** efficiency

Applying the Investment Prioritisation 3-factor matrix to the above ratings, the priority order for the project would be **2**. Of note, the BCR for the programme is 2.8 with a BCR of 3 being required for the programme to have a priority of 1. Some sensitivity tests on the BCR indicate it could over 3 which would provide a priority of 1.

Appraisal Summary tables are included in Section 12.2 and have been prepared in accordance with Waka Kotahi requirements.

6 Problems, Opportunities and Constraints

6.1 Defining the Problems

An Investment Logic Map (ILM) was developed at a workshop with AT, Auckland Council and Waka Kotahi staff. It is included in Appendix A.

The problems identified are:

- A disproportionate allocation of street space to inefficient transport modes causes unreliable access for all users limiting the city centre’s economic potential
- A dominance of design and management for traffic, and Inadequate design for people creates poor quality places and user experience limiting the social, economic and environmental potential of the city centre
- High concentrations of people and high exposure to traffic results in harm and health issues from crashes, noise and pollutants.

Figure 6-1: Problems and benefits

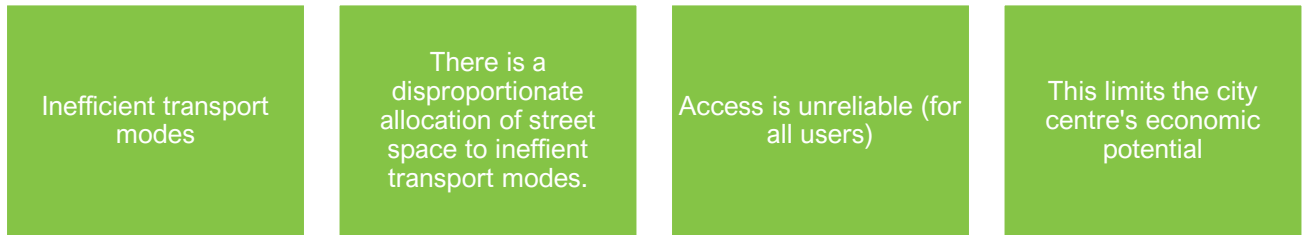
Problem statements	Benefits from addressing the problems
A disproportionate allocation of street space to inefficient transport modes causes unreliable access for all users limiting the city centre’s economic potential	City centre achieves its potential as a place of business and employment
	Improved access for freight and servicing of businesses, residents and events
A dominance of design and management for traffic, and Inadequate design for people creates poor quality places and user experience limiting the social, economic and environmental potential of the city centre	City centre is a desirable place of economic, cultural and social activities for Aucklanders
	Improved experience for, and growth in, tourism and visitors
High concentrations of people and high exposure to traffic results in harm and health issues from crashes, noise and pollutants	Reduced harm to all users from crashes
	Reduced exposure to harmful noise and emissions for people

Section 6.2, 6.3 and 6.4 set out the evidence for these problems.

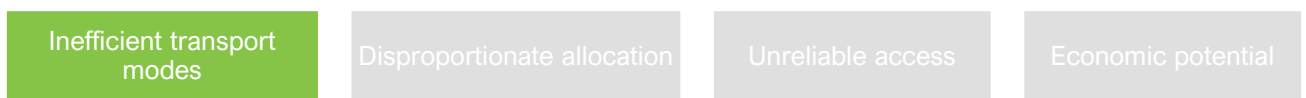
6.2 Problem One

A disproportionate allocation of street space to inefficient transport modes causes unreliable access for all users limiting the city centre's economic potential

This evidence and implications of the evidence for this problem is broken down and addressed in four parts:



6.2.1 Inefficient Transport Modes



This problem suggests that the allocation of road space in the city centre is not “efficient” as the dominant allocation is often given to the least efficient mode.

In understanding this problem, the first requirement is to show which modes are least “efficient” and which are “efficient”. This has been carried out using the likely capacity of different modes. “Efficiency” has been considered in this case to be the mode’s ability to move people in a given physical space. The city centre is dense, its transport network is heavily subscribed and its ability to serve the needs of the city centre in terms of access to jobs and other opportunities is dependent on its ability to move people effectively in limited space.

Figure 6-2 illustrates example feasible capacities from a range of different modes and infrastructure choices.

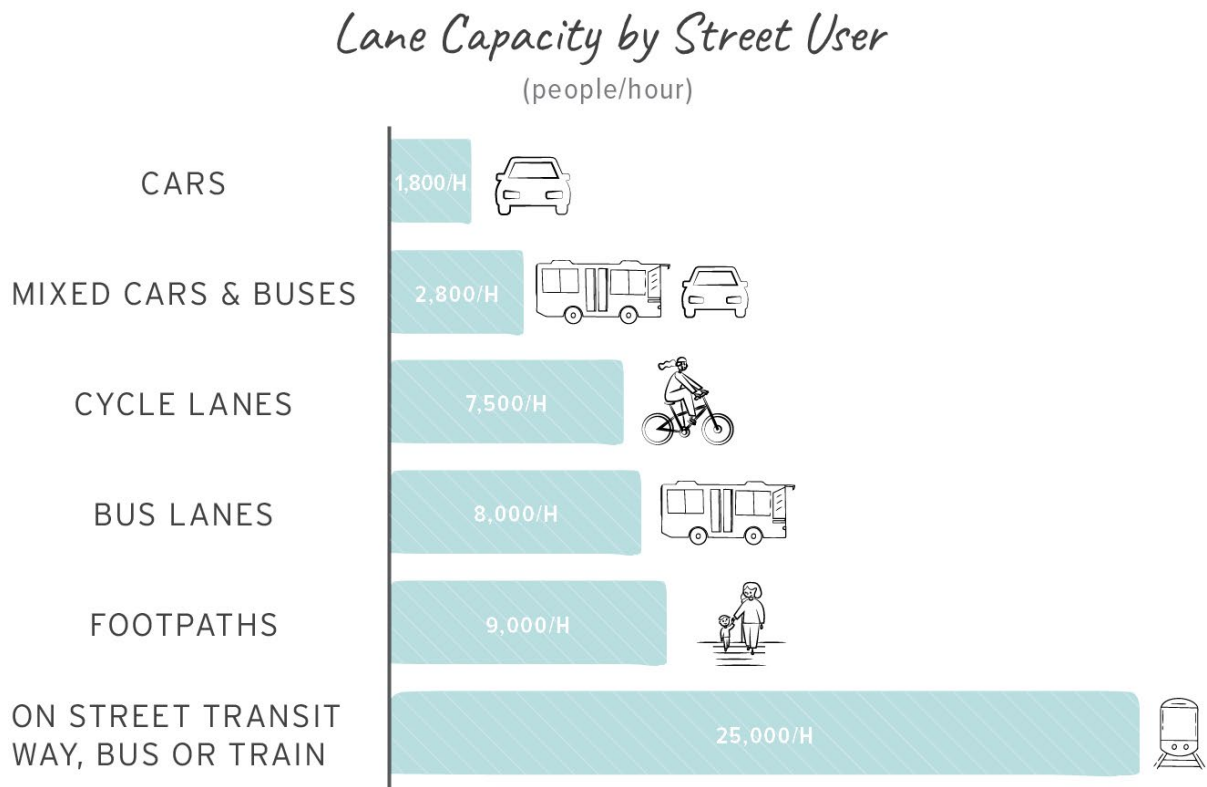


Figure 6-2: Mode efficiency - Auckland Transport Urban Street and Road Design Guide

While there are many sources for this type of figure, the themes are consistent. Private vehicles are the most spatially inefficient mode and mass transit the most effective on streets. Active modes are significantly more efficient than general traffic lanes – but are limited in their catchments to localised areas. Of note however, in the city centre where land uses are dense, these localised areas can be significant. Buses (or light rail) with dedicated road space are efficient modes in this context. Allocation of street space to cycling, walking, bus lanes and rapid transit can be most efficient.

6.2.2 Disproportionate Street Space Allocation



Many streets within the city centre over-allocate space to general traffic despite moving significant amounts of people by other, more efficient modes and a clear strategic intent to prioritise walking, cycling and public transport. There are many streets in the city centre where this occurs. This allocation is outlined for example streets, below. The following are based on data from observed traffic and pedestrian counts and Auckland Transport public transport patronage data, where available. Note that not all data is available for all modes on all streets.

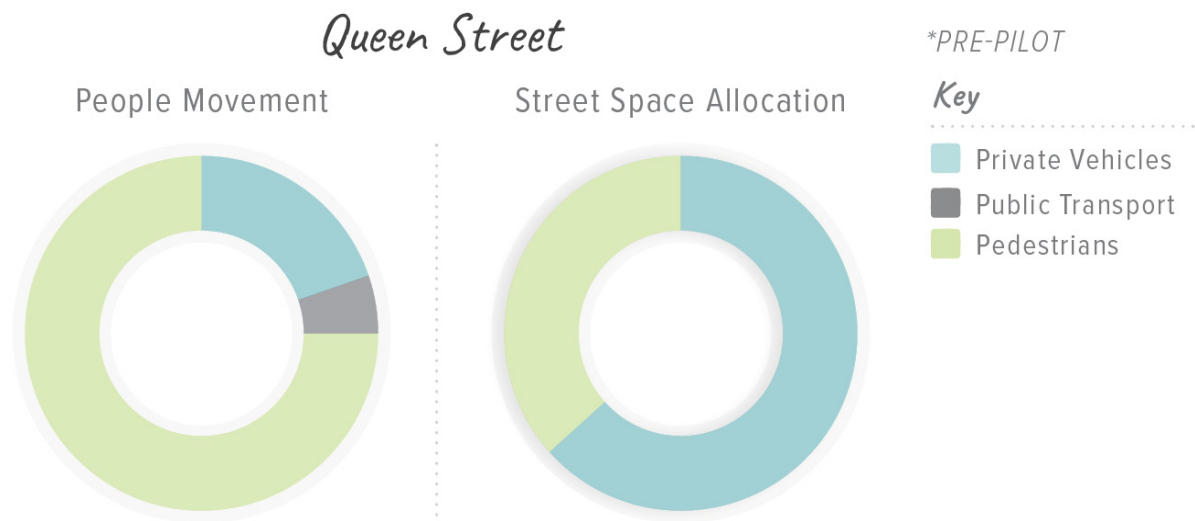


Figure 6-3: Queen Street - spatial allocation vs people movement

On Queen Street the main users are pedestrians. Despite this, the spatial allocation on Queen Street, is a heavily disproportionate allocation of space to private cars.



Figure 6-4: Queen Street

Counts pre-Covid in the vicinity of Queen Street and Victoria Street yielded the following data:

- Queen Street has the highest volume of pedestrians of any corridor (an estimated 37,000 per day)²⁹
- Currently the corridor carries between 10,000 and 17,000 vehicles per day, with higher volumes at the upper (southern) end and lower volumes at the northern end³⁰.

While not carrying the passenger volumes of streets like Albert Street, Queen Street has an important public transport function with the CityLink service operating every 7-8 minutes connecting “uptown” Karangahape Road with “downtown” and Wynyard and the InnerLink every 10 minutes north of Victoria Street, both vital city centre and fringe movers and distributors as well as the 105 route from Westmere every 20 minutes.

The spatial allocation on Queen Street does not reflect the actual or the intended purpose of the street with:

- A significant allocation of space to traffic
- Little space for public transport
- No allocation for cycling and micromobility.

It is noted that the Queen Street Trial project is moving to temporarily reallocate this space. The default situation remains poorly aligned with use by different modes.

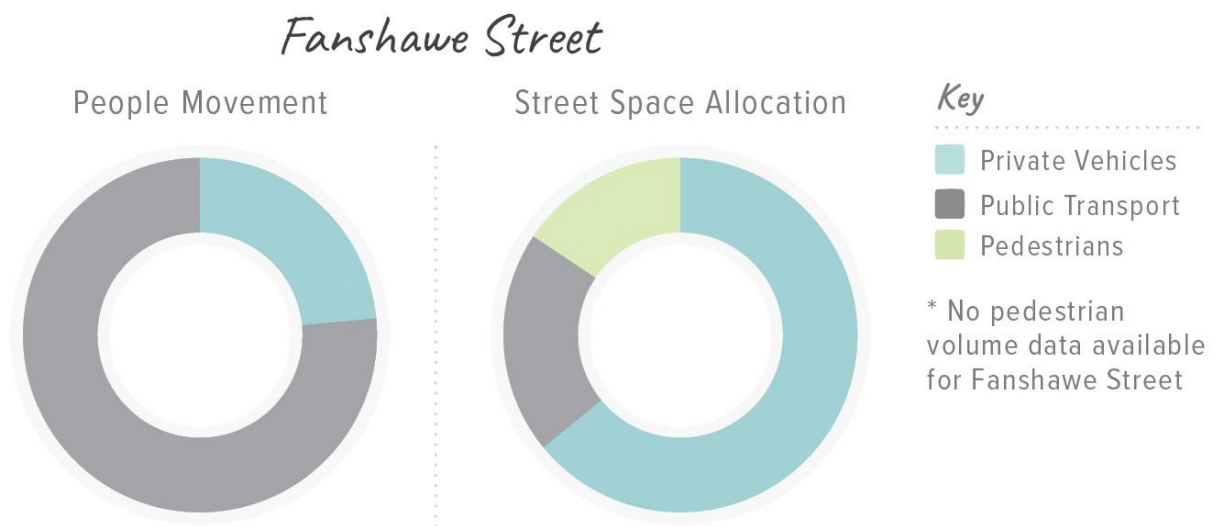


Figure 6-5: Fanshawe Street - spatial allocation vs people movement

Fanshawe Street is effectively part of Tāmaki Makaurau’s rapid transit network. It provides the final kilometre of the northern busway’s route and delivers some 150 buses per hour in peak periods. Bus lanes exist, but are partial bus lanes and subject to turning traffic and delays. Pedestrian spaces are limited and conflicted. Figure 6-6 shows an example of the bus stops and the limited space for pedestrians in locations of high demand.

²⁹ Heart of the City Pedestrian Counts

³⁰ Auckland Transport AADT counts



Figure 6-6: Fanshawe Street bus stops

Fanshawe Street is the busiest public transport route in Tāmaki Makaurau carrying 10,000 people in the am peak. This is comparable with any of Tāmaki Makaurau rail lines.

In the 2-hour peak Fanshawe Street carries 80% of people in buses, 20% in cars whereas in terms of vehicles - buses account for 10% and cars 90%.

While no data exists for pedestrians, given the density of land uses on Fanshawe Street and the very high numbers of buses, it is likely that pedestrian volumes are significant, particularly in relation to people accessing destinations from buses. Figure 6-7 shows the comparison between space allocated to traffic, pedestrians and buses, noting the intermittent nature of the bus lanes.



Figure 6-7 Fanshawe Street near Daldy Street

The spatial allocation does not match the observed modes well. Almost two-thirds of the road width is allocated solely to general traffic with five lanes over most of its length.

Customs Street

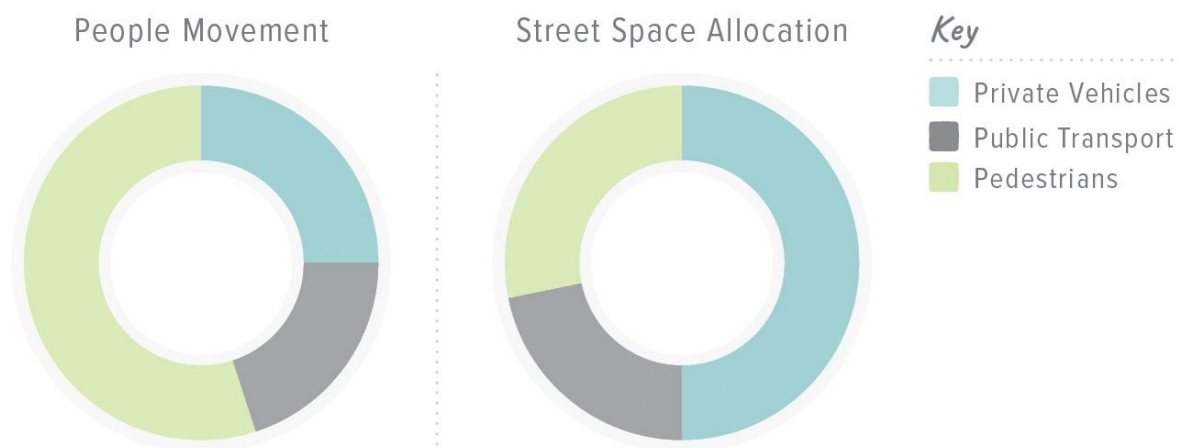


Figure 6-8: Customs Street - spatial allocation vs people movement

Customs Street is critical to Tāmaki Makaurau’s public transport network, forming a key part of the multi-modal interchange that exists in the downtown area connecting the Ferry Terminal, Britomart Train Station and major bus routes and termini. Customs Street is also a major barrier to the connection between Queen Street and the city centre’s core and its waterfront.

Customs Street is a primary pedestrian route and a major rapid transit-level public transport street. The street is already a major bus corridor, which will become even busier as it is expected to carry the North Shore services as well as services from east Auckland and the Isthmus when the City Centre Bus Strategy is implemented. It is expected to carry over 200 buses in the peak hour by 2028 (both directions). In the vicinity of the intersection with Queen Street, Customs Street is expected to provide the following functions which combine and intensify the pedestrian and public transport needs:

- Major bus stops for bus services from the North Shore, east Auckland and the Isthmus to access the highest employment density location in Tāmaki Makaurau
- An immediate distributor for pedestrians to and from Britomart Train Station and the Ferry Terminal
- A key part of a downtown interchange with people walking between ferries, trains and buses to make connected journeys through the city centre
- A major pedestrian route connecting east-west across Queen Street and the waterfront with the city centre.

The spatial allocation does not reflect the observed use, and this is expected to be exacerbated in the future with increased public transport demands. There is an excess of space for traffic given the intended function and inadequate space for pedestrians, particularly when the complex needs of pedestrians are considered, including public transport interchange, boarding, alighting as well as pedestrian movement. Pedestrian spaces are highly conflicted with bus shelters, signage and waiting zones allowing limited space for movement. This is evident in Figure 6-9 with busy pavements, no space for boarding and alighting from buses.



Figure 6-9: Customs Street typical environment

On Customs Street private vehicles are allocated approximately half of the street space yet carry a quarter of the users. The allocation to pedestrians is the reverse with around half the movements taking place in a quarter of the space.

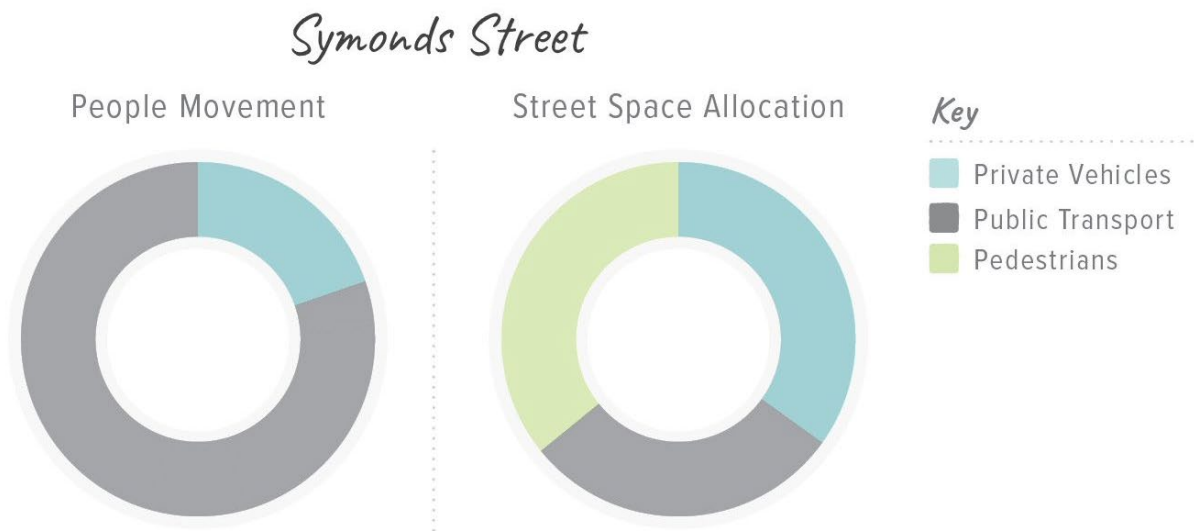


Figure 6-10: Symonds Street - spatial allocation vs people movement

Symonds Street is a major entry point for buses to the city centre and forms the spine of the main university campus area in Tāmaki Makaurau (the Learning Quarter) and as a result has high pedestrian demands.

Symonds Street is a Frequent Transit Network street, which delivers large numbers for buses to the city centre. Its role at the heart of Tāmaki Makaurau’s universities requires a strong pedestrian focus.

The observed use of Symonds Street is a significant dominance of public transport. Observations and consideration of the land use of the area which is a primary driver of pedestrian trips indicate that pedestrian function is very high. On Symonds Street approximately 80% of people travel in buses with 20% in cars. Buses account for 14% of vehicles and cars 86%, during the 2-hour am peak period. Of importance to Symonds Street, 74% of University of Auckland’s city centre campus students use buses as their main mode of transport which means that the bus stops are very busy. Pedestrian trips to and from bus stops as well as the high levels of pedestrian activity typical of a university campus environment mean that the pedestrian spaces are very busy. 18% of University of Auckland students walk or run as their main mode of transport.

Nearer the southern end of the corridor this proportion of road space given to public transport is less – despite this being the section carrying the largest volume of people on public transport.

The issue with Symonds Street is space for pedestrians. Footways are busy, particularly around bus stops.

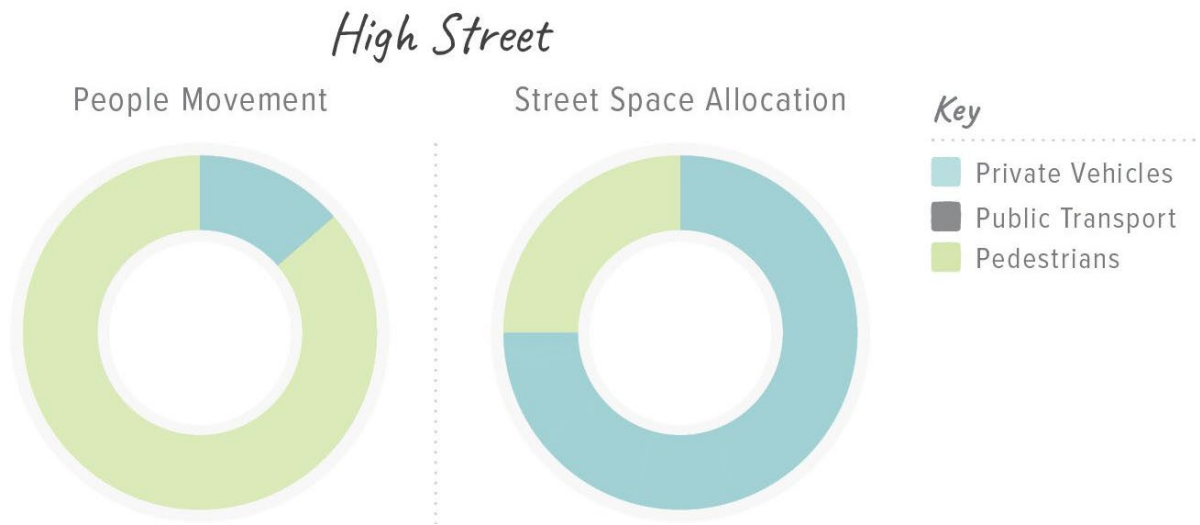


Figure 6-11: High Street - spatial allocation vs people movement

It is noted that improvements are already underway on High Street, with trial enhancements already (as of 2021) in place. The High Street pilot replaced on-street parking with temporary footpath extensions that doubled the width of the street’s narrow footpaths. The longer-term upgrade of High Street has budget allocated, currently sitting in the 2022–2024 financial years.

High Street has had many of the issues that other smaller city centre corridors face. It has been used as a ‘proxy’ for other minor city centre streets.

The observed function of many smaller city centre streets is that they are currently designed for general traffic movement with poor quality spaces for pedestrians and urban realm.

High Street, as an example, accommodates 13 times as many pedestrians as cars, but allocates the majority of space to general traffic.

Other streets such as Federal Street, Shortland Street and Wolfe Street (Figure 6-12) have similar divergences between function and form, resulting in poor outcomes.



Figure 6-12: Federal Street, Shortland Street, Wolfe Street

The spatial allocation on many of the minor city centre streets does not reflect the actual or the intended use of the street with:

- A significant allocation of space to traffic
- No allocation for cycling and micromobility
- Minimal space allocated for pedestrians and urban realm.

6.2.3 Unreliable Access

Inefficient transport modes

Disproportionate allocation

Unreliable access

Economic potential

The very high land use density in the city centre results in high density of travel demand on transport corridors requiring them to work hard in comparison to most other streets. The allocation of street space to inefficient modes outlined in 6.2.1 contributes to poor levels of travel reliability in the city centre.

The city centre of Tāmaki Makaurau draws its travel demands from across the region. As outlined in Section 3.4 demands are widespread, but the largest are from the Isthmus and North Shore. While the City Rail Link, being an underground railway, will play a significant role in delivering people from Tāmaki Makaurau's south, east and west without the need to use city streets, the key origins from Isthmus and North Shore will continue to use city streets for access. The growing city centre and fringe residential population along with the need for all travellers, including those from underground train stations, to walk and cycle on city streets to begin or complete journeys, adds to the intensive numbers.

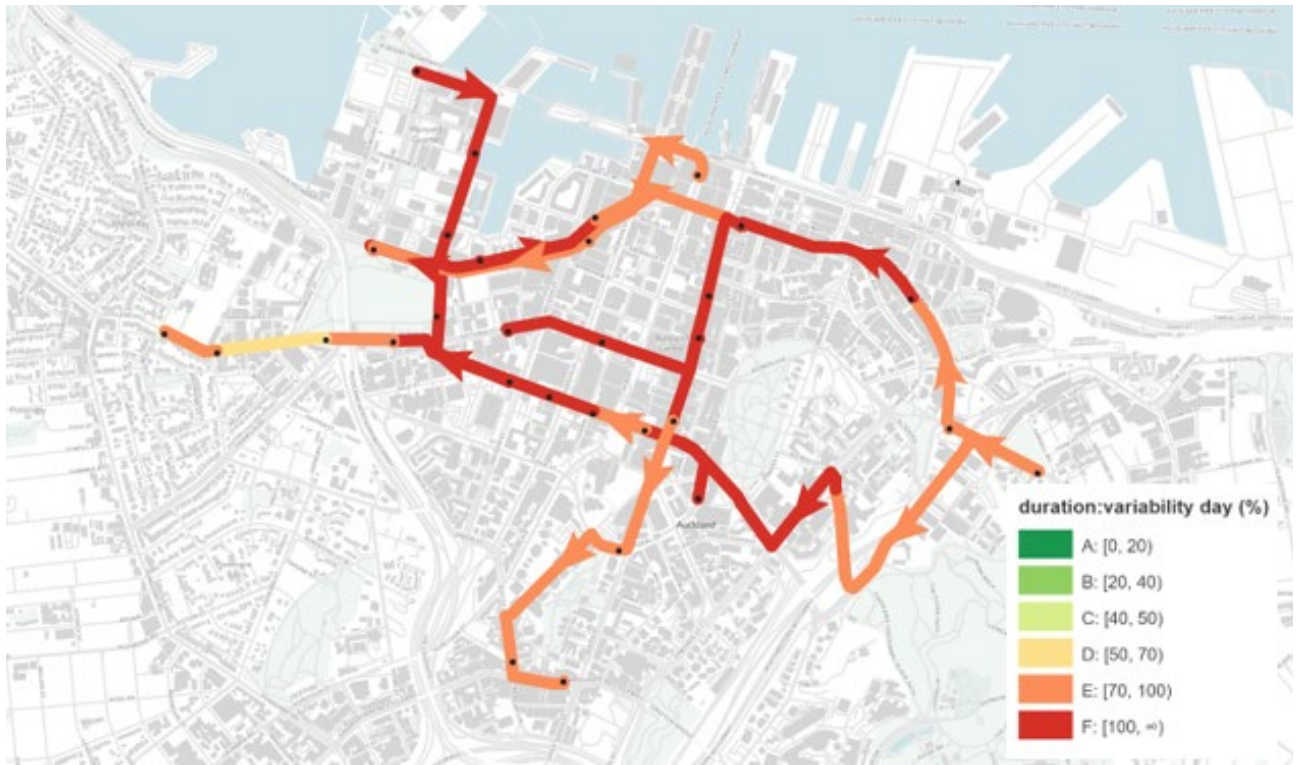
Public transport

As illustrated in Section 3.4, public transport is expected to become the dominant provider of access in peak periods which is key to the city centre achieving its potential as a strong core of Tāmaki Makaurau's employment, education and recreational sectors.

Public transport is constrained by the space available for movement and also by the amount of kerbside space available for bus stops, staging areas and lay-up, short blocks lengths, and the number of traffic signals. It is also constrained by pedestrian space as streets and footpaths also function as boarding and alighting spaces which can result in delays due to long dwell times if they are too congested or conflict with non-public transport related pedestrian activity.

Insufficient space leads to longer journey times and adversely effects passenger trips. In its City Centre Bus Plan White Paper, Auckland Transport has identified the need to improve transfer experience, bus stop legibility, passenger safety, and travel times, which all require additional street space.

The maps below show the variability of travel time compared to the median on segments of bus corridors within the city centre. Each map contains multiple segments, made up of the space between two bus stops. On each of these segments, the colour of the line shows the relative variability in travel time, with red showing the greatest amount of variability in travel time. This shows that some journeys take twice as long the median travel time. Peak hour times on key routes have been represented in these maps. The maps are made using General Transit Feed Specification (GTFS) feed from OpenMobilityData, and both real time and ticketing data from AT.



Journey time variability from the medium travel time between bus stops along the corridors travelled by the City Link, Inner Link, Outer Link, Northern Express, and the 82 service between 5pm and 6pm. Where routes overlap, the segment showing the greatest variability has been shown. Source, MRCagney.

Figure 6-13: Public transport journey time variability

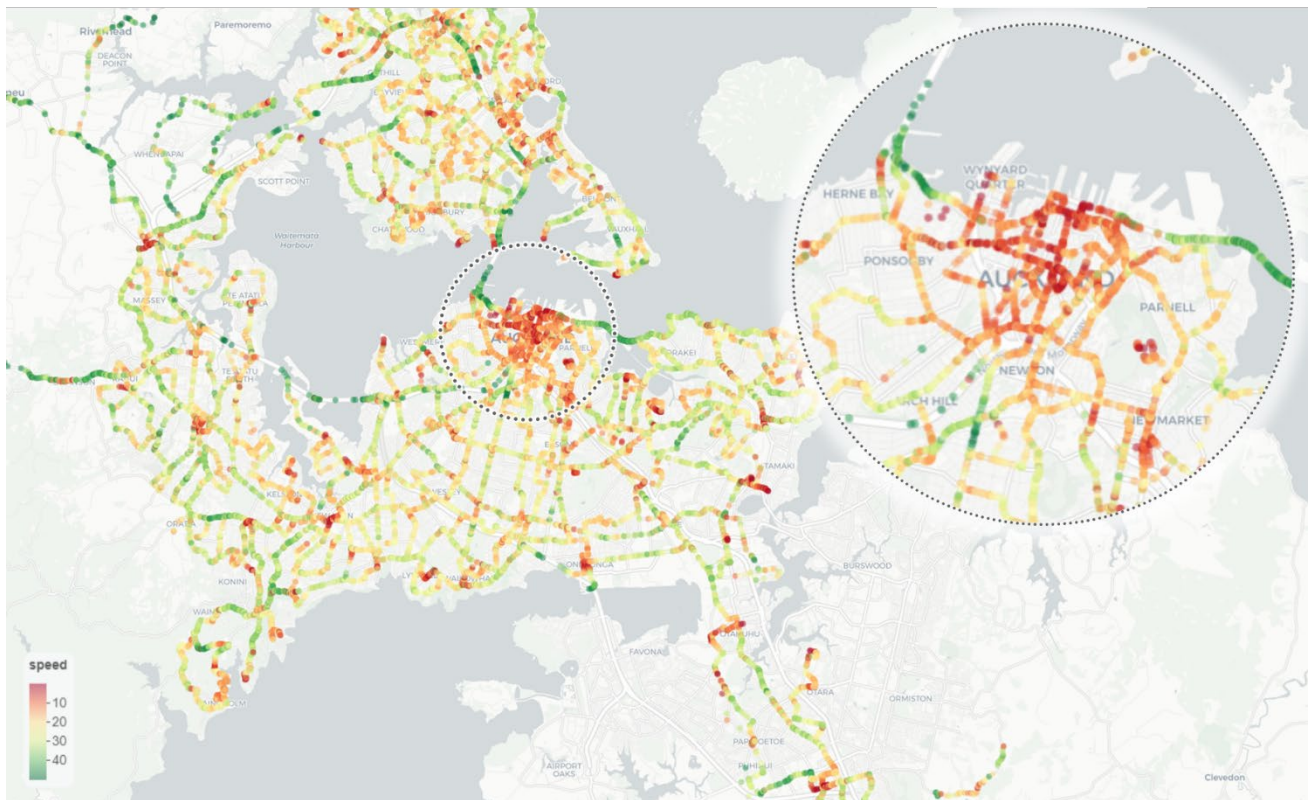


Figure 6-14: Bus speeds – 2020 GPS data, AM peak (2hr)

The data shows that bus travel times through the city centre at peak times is highly variable, creating significant unreliability for passengers. In many locations in the city centre, bus variability is more than 70%. This unreliability contributes to poor customer experience and negatively affects public transport mode share.

As shown in Figure 6-14, when compared to the wider public transport network, the city centre has a significantly poorer quality of services, with notably slower bus speeds. This is important as the density of users is greatest in the city centre, so the impacts occur to the largest number of users.

Unreliability for traffic

Despite having a significant allocation of street space, the reliability for traffic is poor. While this needs to be viewed in the context of the intended street function and mode share outcomes sought in the city centre, some elements of the traffic make-up are important for the city centre’s health and function. Users like freight on particular routes, deliveries, trades and services require means of accessing customers to ensure the city centre remains a viable place to live and do business.

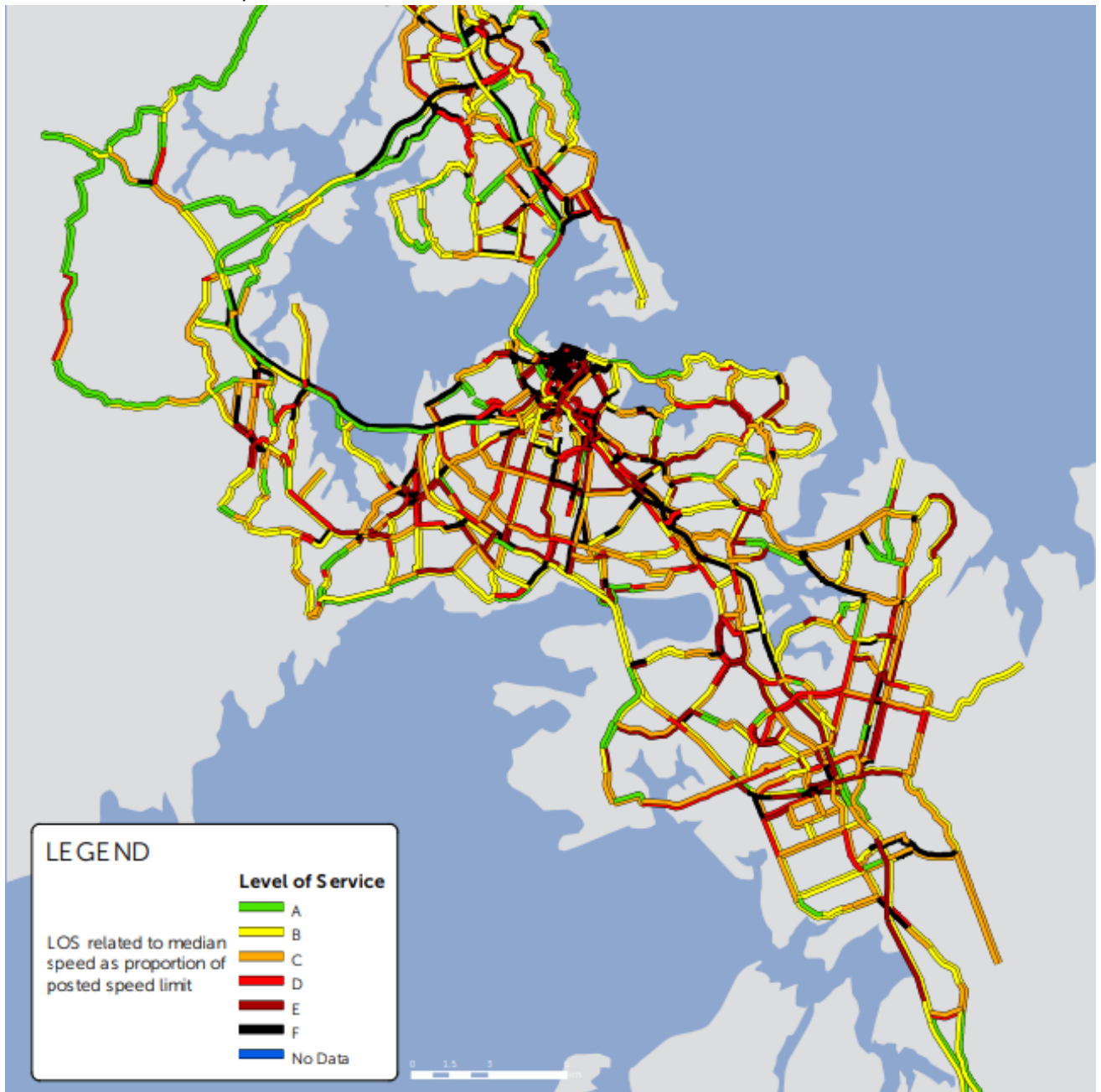


Figure 6-15: AM peak congestion LoS (February 2020)

Figure 6-15 shows the AM peak congestion for Tāmaki Makaurau and the city centre compared to the rest of the region. While not unexpected, the levels of service are poorer than the remainder of the region.

Figure 6-16 shows the city centre section. The top left image is a map of the typical level of service across the arterial and motorway networks during the morning peak hour (07:30 – 08:30) for February 2020. The measure used to calculate level of service is median speed as a proportion of posted speed limit. The map

demonstrates that large sections of the city centre network are experiencing congested conditions during peak periods, with severe congestion (dark red and black) for roads within or accessing the city centre.

This means that despite the disproportionate allocation of space to general traffic within the city centre access is still unreliable and constrained. This is likely to affect high priority forms of traffic including deliveries and services. It highlights how vital spatially efficient modes are to improving access for all people accessing the city centre.

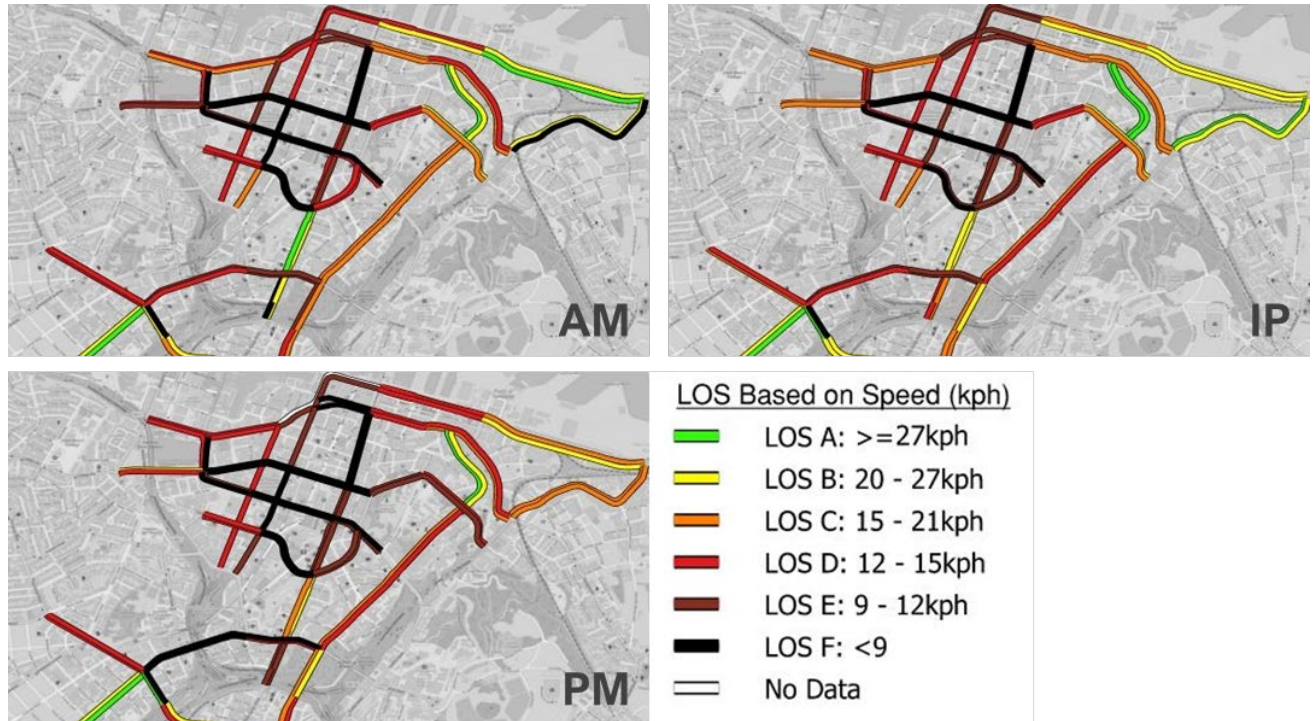


Figure 6-16: City centre congestion (based on travel time)

Pedestrians and cyclists

A product of the disproportionate street space allocation is pedestrian delay caused by the existence of few pedestrian-only or pedestrian prioritised crossings and a dominance of “standard” intersections where space and time is disproportionately allocated to traffic. This includes:

- Signalised crossing points where pedestrians need to wait for significant traffic phases
- Unsignalised crossing points where pedestrians need to cross busy traffic lanes and wait for gaps in the traffic flow
- Large intersections with multiple lanes to cross meaning long crossing times.

Measuring Pedestrian Delay (MRCagney, 2017) aimed to quantify pedestrian delay at signalised intersections in the Tāmaki Makaurau city centre, which are a significant contributor to delays and inconvenience experienced by people walking in the city centre. Case studies were carried out at two busy intersections in the city centre:

- The intersection of Victoria Street and Queen Street
- The intersection of Upper Queen Street and Karangahape Road.

During a typical midday peak hour in February, pedestrians experienced an aggregate total of 2,500 minutes of delay at the Queen Street / Victoria Street intersection and 630 minutes of delay at Upper Queen Street / Karangahape Road. This translates into an estimated annual economic cost of \$2.2M at the Queen Street / Victoria Street intersection and \$710,000 at the Upper Queen Street / Karangahape Road intersection³¹.

³¹ https://www.walk-space.at/infomail/NL2_2019_Measuring-pedestrian-delay-Auckland-MRCagney-2017.pdf

Wallis and Lupton (2013) estimated that in 2006, the total cost of vehicle congestion in Tāmaki Makaurau (relative to free-flow traffic conditions) was around \$1.25 billion. The cost of pedestrian delay at these two intersections alone is equivalent to around 0.3% of that region-wide cost of vehicle congestion. It could be expected that the aggregate cost of pedestrian congestion in the city centre equates to a significant proportion of the overall cost of traffic congestion in Tāmaki Makaurau.

In addition to this, despite the high number of pedestrians in the city centre, many footpaths are narrow, with a disproportionate distribution of streetspace to pedestrians. This is covered in more detail below in problem statement two (Section 6.3). This results in pedestrian congestion – particularly along major pedestrian corridors (eg Customs Street, Queen Street).

Many of these issues and those raised in Section 6.3 relate to cyclists. While data on reliability for cycling does not exist, it is known that for cyclists within the city centre is a lack of infrastructure and connection between the existing network. As a result, cycle volumes within the city centre are low, and the reliability of cycle trips is challenging to measure.

6.2.4 Limiting Economic Potential

Inefficient transport modes

Disproportionate allocation

Unreliable access

Economic potential

Having established that the city centre's network is poorly allocated and efficient modes are not performing well, the last part of Problem 1 relates to the effect that an underperforming transport network can have on the city centre's core function as a nationally significant provider of jobs and education as discussed in Section 3.2, above.

The Auckland Council Technical Report 2017/007-2 *The relationship between pedestrian connectivity and economic productivity in Auckland's city centre. Second edition. Network scenarios analysis*³² provides a highly relevant assessment of the value to the city centre's economy of improving pedestrian connectivity.

The research suggests that walkability makes a positive contribution to economic productivity and that there is a positive and statistically significant association between walking effective job density and estimated labour productivity. In the Tāmaki Makaurau city centre, a 1% increase in walking EJD (effective job density) would increase the value of the city centre economy by 0.53% or approximately \$42 million based on the authors' estimate³³.

The study tests two scenarios, one of which (Scenario Two) has many attributes of the City Centre Masterplan's Access for Everyone concept. Scenario Two assesses a shared space on Queen Street from Wellesley Street to Quay Street. The assessed potential impact of Scenario 2 (pedestrianising Queen Street) is \$244m.

Centre city businesses

Access goes beyond the wider scale impacts on productivity. Cities function through connectivity – connectivity of people to people but also access for service and delivery, and freight.

Poor access impacts the day to day functioning of many of the city centre's businesses. Figure 6-17 and Figure 6-18 show how Tāmaki Makaurau businesses are already impacted by poor quality access to the city centre – congestion and loading availability.

³² <https://knowledgeauckland.org.nz/media/1134/tr2017-007-2-pedestrian-connectivity-economic-productivity-auckland-city-centre-scenarios.pdf>

³³ The Relationship between Pedestrian Connectivity and Economic Productivity in Auckland's City Centre (2017)

Main Barriers to Growth – Traffic

Concerns with traffic have significantly increased since 2018

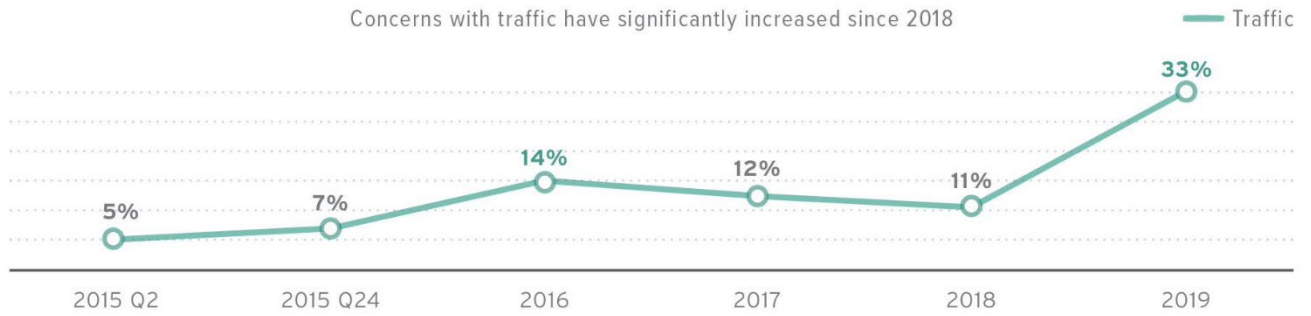


Figure 6-17: Proportion of businesses identifying congestion as a barrier to growth³⁴

IN THE CBD, HOW EASY OR DIFFICULT IS IT TO...

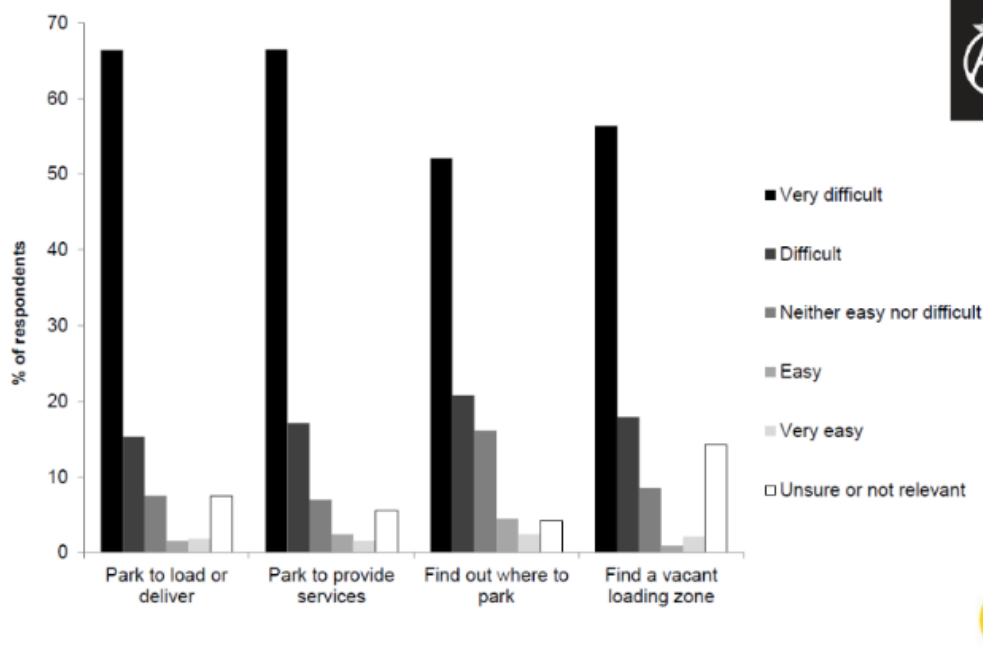


Figure 6-18: Parking and loading survey results (source: AA)

Based on a survey completed by AA, about 30% of city centre-based businesses and construction businesses say they have had businesses refuse them service because of parking and loading issues. Over 80% of city centre businesses identified loading and parking as difficult.

A 2017 study by NZIER estimated that the benefits of decongestion in Tāmaki Makaurau would be between \$0.9 billion and \$1.3 billion per annum (approximately 1-1.5% of Tāmaki Makaurau’s GDP, based on 2016 prices)³⁵.

This data is significant as it illustrates that the potential disbenefits of the city centre’s disproportionate allocation of street space to the least efficient mode of transport available, private cars, is creating poor quality access to the city centre, including essential loading and servicing, and this has the potential to limit the city centre’s economic performance.

³⁴ Auckland Council Business Survey: Auckland Region Wave 6 Results, Auckland Council and ATEED (2019)

³⁵ nzier_report_on_auckland_benefits_of_decongestion.pdf

6.2.5 Summary

The intended function of Tāmaki Makaurau’s city centre is as a major economic driver. While there are many investments and strategies existing and proposed to enhance the accessibility of the city centre such as City Rail Link, Northern Busway, northern cycling connection, potentially light rail, cycling programmes and Connected Communities, the city centre’s streets are not currently designed to make best and most effective use of the valuable space they occupy to support these investments and the outcomes sought for the city centre through the City Centre Masterplan. City centre streets provide vital access for those living and working in the city centre. While maintaining this access, as well as loading/ unloading and disabled access is critical to function of the city centre, there are deficiencies in the provision of space for walking, cycling and public transport which constrain the effectiveness of the city centre.

6.3 Problem Two

A dominance of design and management for traffic, and inadequate design for people creates poor quality places and user experience limiting the social, economic and environmental potential of the city centre

The evidence and implications for this problem is broken down and addressed in three parts:

There is a dominance of design for traffic/ inadequate design for people

Poor quality spaces and user experience

This limits the city centre's social, economic and environmental potential

6.3.1 Traffic Dominated Design

Traffic Dominated Design

Poor Amenity

Limited City Centre Potential

The design of Tāmaki Makaurau’s city centre has been historically linked to the design and development of its supporting transport network. Tāmaki Makaurau’s design has been fundamentally impacted and driven by decisions in the second half of the last century when cars became the dominant transport mode. The city began decades of transport investment in motorways and roads that increased reliance on the private car. In the city centre the most critical changes were:

- 1949-1956: Removal of tram services
- Late 1950s - 1960s: Waitematā Harbour Bridge and Northern Motorway, with the motorway network started in 1953 and the Harbour Bridge completed in 1959.
- 1973: Central Motorway Junction construction
- Mid 1970s: Mayoral Drive completed
- 1990: Hobson Street flyover construction.

The second half of the 20th century has left the city with wide traffic lanes, streets and intersections and introduced the one-way network on Nelson and Hobson Streets to feed the motorways. These measures introduced complex arrangements and restrictions on access for both vehicular traffic and pedestrians that have eroded the legibility of the street network. The Central Motorway Junction has constrained the city centre’s growth and created severance between it and the surrounding city centre fringe.

The City Centre Master Plan of 2012³⁶ recognises connectivity is at the core of many of the “challenges” confronting the city centre, in particular:

³⁶ <https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-by-laws/our-plans-strategies/place-based-plans/Documents/city-centre-masterplan-2012-print-version.pdf>

- The city centre being “*poorly connected to surrounding urban villages (by) The topography, motorway network and harbour*”
- The city centre being disconnected from the waterfront by streets with “*width*” and “*high traffic volumes.*”
- “*A large-scale street layout accommodating a high number of cars dominates the city centre. For pedestrians, this means poor-quality walking environments, inconvenient routes and inefficient travel times.*”
- “*An incomplete pedestrian and open space network.*”

Some examples of the traffic dominated streets are shown in the next section.

This aspect of the problem definition is also supported by the specific street space allocations outlined in section 6.2.2. This illustrates the specific proportions of streets allocated to traffic which, as noted in following sections, represents a well-accepted measure of poor urban amenity.

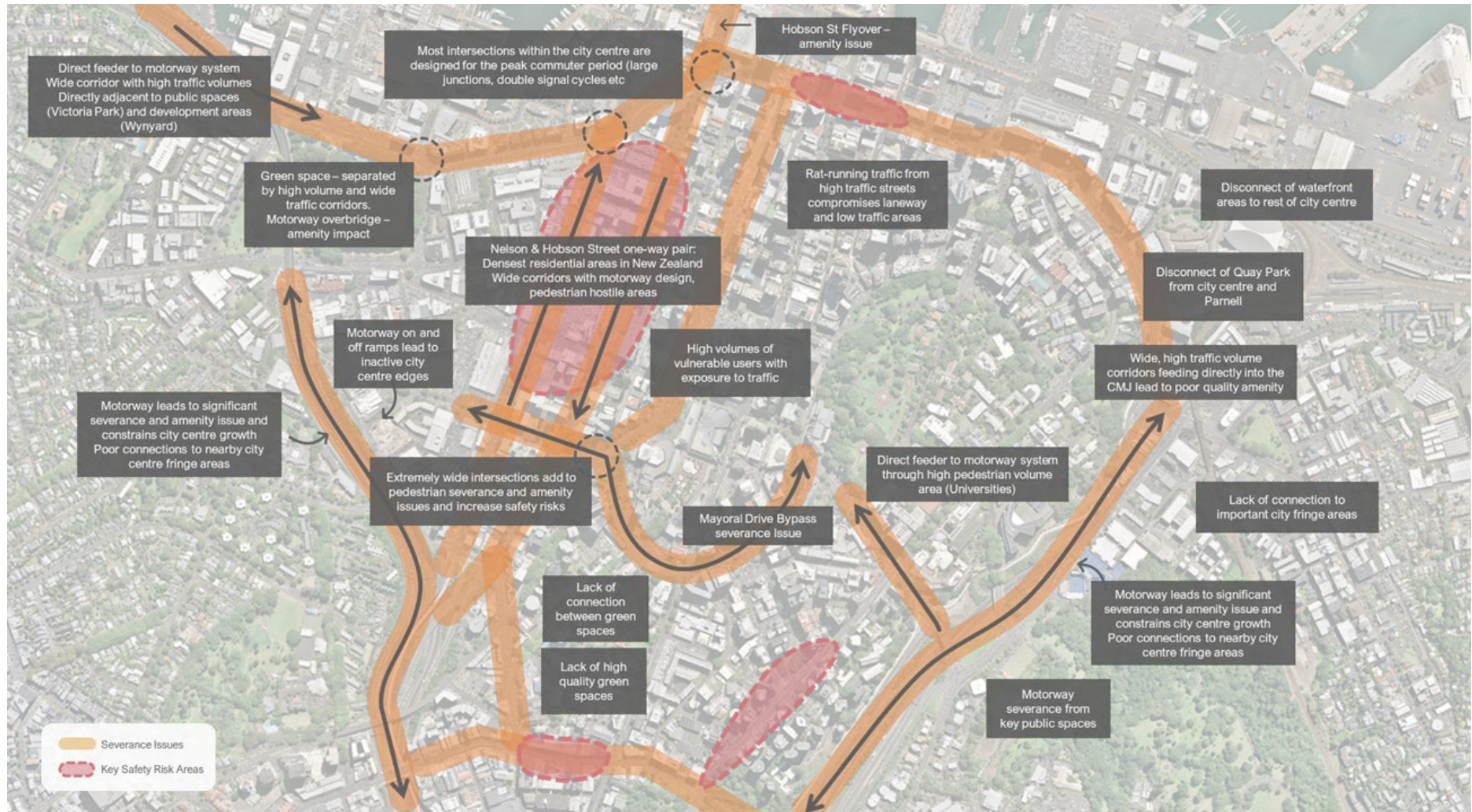


Figure 6-19: Traffic dominated design - city centre legacy

6.3.2 Poor Amenity and User Experience

Traffic Dominated Design

Poor Amenity

Limited City Centre Potential

What does good look like?

In order to understand better why the amenity in the city centre is unsatisfactory (poor quality spaces and user experience) this section sets out what “good” looks like from a user’s perspective.

International and local studies help show the possible ‘good’ street amenities or types of urban environments. They include developing economic assessment tools to understand the value placed on particular urban attributes by users.

In 2020, Waka Kotahi released interim guidance on valuing quality improvements to footpaths and the pedestrian environment³⁷. It was based on meta-analysis of 25 studies from 13 countries, most of which were published in the past decade. The meta-analysis found that on average, pedestrians value:

- Environments with lower traffic volumes and speeds
- Routes through parks and active retail frontages
- High quality, wide footpaths, with safe pedestrian crossings
- Urban amenities including street trees, planting, seating, lighting, and wayfinding
- Streets with pedestrian activity, though not with so much activity that the footpath becomes crowded.

These factors are a direct reflection of the problems defined in this PBC and identified in the 2012 City Centre Masterplan and 2020 Masterplan update.

These preferences were found to be of a meaningful scale such that they are recommended to be included in future economic analyses of transport projects. For example, the meta-analysis suggests that pedestrians may be willing to:

- walk for 20% longer in order to walk on a street with trees or plantings adjacent to the footpath
- walk 35% longer to walk on a street with fully active retail frontage compared to a street with no active retail frontage.

Tāmaki Makaurau city centre amenity

Within the city centre, there are many places that lack the amenity best practice features outlined above, resulting in spaces that are unattractive or unfavourable to pedestrians, and which limit the user experience for pedestrians which in turn is likely to limit pedestrian activity. Examples of these are highlighted below. It should be noted that the city centre has developed a range of higher amenity areas including:

- Shared spaces on Fort Street, O’Connell Street, and Fort Lane, and pedestrian plaza space around Britomart station, including Takutai Square and Te Komititanga
- The redevelopment of Freyberg Place as a pedestrian and public space
- The development of parks, pedestrian access, and shared space in Wynyard Quarter
- The introduction of pedestrian improvement trials in Auckland Central, including High Street.

³⁷ Impact on Urban Amenity in Pedestrian Environments (Waka Kotahi, 2020)

However, amenity in other areas is still poor, the ‘better’ spaces are not connected by a network of high amenity infrastructure and some of these ‘higher amenity’ areas are still impacted by through traffic volumes. In some cases, while physical upgrades have been carried out, the poor functional outcomes through retained high traffic levels have led to continued poor amenity as amenity is a product of a street’s form and its function with lower traffic volumes and use for multiple uses.

The following section takes some examples of streets typical of Tāmaki Makaurau’s city centre and assesses them against what “good” looks like according to the above guidance:

- Environments with lower traffic volumes and speeds
- Routes through parks and active retail frontages
- High quality, wide footpaths, with safe pedestrian crossings
- Urban amenities including street trees, planting, seating, lighting, and wayfinding
- Streets with pedestrian activity, though not with so much activity that the footpath becomes crowded.

Shortland Street



Shortland Street connects Queen Street with feeder streets from Anzac Avenue and the Learning Quarter. Its proximity to Queen Street, high land use densities and connection to shared streets in Jean Batten Place and Fort Street mean it has high pedestrian volumes and has an important role in the pedestrian network.

Criteria	Assessment for Shortland Street
Environments with lower traffic volumes and speeds	Speeds are generally low when congestion is high, but in less congested times, the wide carriageways can generate higher speeds.
Routes through parks	Has active frontage, but limited amenity values due to narrow footpaths with limited space for green or soft spaces.



Criteria	Assessment for Shortland Street
and active retail frontages	
High quality, wide footpaths, with safe pedestrian crossings	Footpaths are narrow and can be congested. There is a pedestrian (zebra) crossing. Pedestrian priority is limited to this point on the street with traffic having priority over the vast majority.
Urban amenities including street trees, planting, seating, lighting, and wayfinding	The footpath is cluttered with traffic signs, bins and some bike racks. The narrow footpaths mean there is limited space for planting and seating.
Streets with pedestrian activity, though not with so much activity that the footpath becomes crowded	Pedestrian traffic is high, but footpaths are narrow and often crowded, constraining pedestrian flow and useability.

Hobson Street



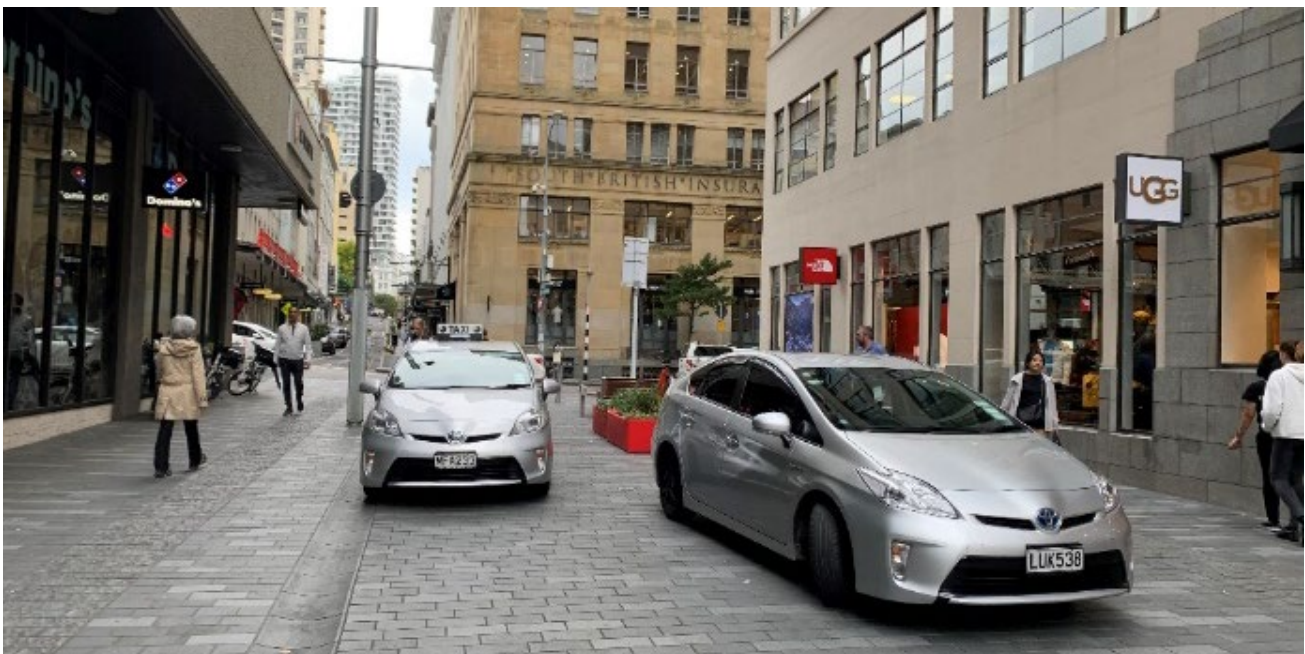
Hobson Street is a major southbound one-way street used by traffic to access on-ramps to the southern and western motorways. It is also a major residential neighbourhood, with a large cluster of apartment complexes and is on the edge of the wider Queen Street valley, providing a barrier to east-west movement of people.

Criteria	Assessment for Hobson Street
Environments with lower traffic volumes and speeds	Traffic volumes are very high on Hobson Street and its very wide carriageway (5 lanes) and one-way set-up means it can create high speeds, despite the posted 30km/h limit.
Routes through parks and active retail frontages	Active frontages are evident, but sparse and there is no green space.
High quality, wide footpaths, with safe pedestrian crossings	Footpaths are narrow, crossed by many vehicle crossings, have significant traffic signage installations, including major motorway gantries located in the footpath. Crossings are available only at major widely separated signalised intersections which prioritise traffic.
Urban amenities including street trees, planting, seating,	Some mature trees are located in Hobson Street, however the carriageway dominates the space and where trees do exist, tree pits take up a large part of the narrow useable footpath, along with traffic signage. Wayfinding is poor with the street being designed as a traffic street and most cues either signage or otherwise are designed for motorists.



Criteria	Assessment for Hobson Street
lighting, and wayfinding	
Streets with pedestrian activity, though not with so much activity that the footpath becomes crowded	Footpaths are narrow and while not normally busy are used as access to residential buildings. Pedestrian activity is necessary to access residential buildings

Jean Batten Place



Jean Batten Place is an example of a street that has been upgraded to reflect much of what “good” looks like in a physical sense, but adjustments to the movement network have not been made to give effect to the physical changes. Currently, traffic uses this street from Shortland Street to avoid congestion on Shortland Street or to access Customs Street via Fort Street. This significantly reduces the safety for pedestrians and amenity of the shared space and does not fully realise the benefits of the quality physical product. Jean Batten Place also suffers from issues associated with illegal parking, servicing and loading which adversely affect the intent to create a quality urban place and also the use of the street for movement.



Criteria	Assessment of Jean Batten Place
Environments with lower traffic volumes and speeds	Traffic volumes are higher than the design of the street suggests they should be. There is frequently conflict between pedestrians and vehicles.
Routes through parks and active retail frontages	Active frontages are in place. While the street is designed like a public place, the number of vehicles in the street reduces the quality of the experience.
High quality, wide footpaths, with safe pedestrian crossings	This is a shared space. Footpaths are “softly” denoted by changes in texture. Safety and effective width of footpaths is reduced by the amount of traffic.
Urban amenities including street trees, planting, seating, lighting, and wayfinding	Good amenities exist. Seating, planting and wayfinding is good.
Streets with pedestrian activity, though not with so much activity that the footpath becomes crowded	Pedestrian activity is high, although the effective width for pedestrians is limited by the amount of traffic.

Federal Street



The northern end of Federal Street is an example typical of many streets in Tāmaki Makaurau’s city centre. The street forms a local connector between east-west streets and should be a key pedestrian link to allow people to make a wide range of journeys on foot. The reality for the street is that it promotes vehicle movement and parking over pedestrians. Footpaths are very narrow and some of that is taken up with vehicle orientated signage which further reduces the effective footpath. In addition, the active frontage is broken up by large dead zones and driveways to parking garages.

Criteria	Assessment
Environments with lower traffic volumes and speeds	Traffic volumes are relatively low. While speeds are also likely to be low, the impression is that the street is for traffic and volumes and speeds could be lower.
Routes through parks and active retail frontages	Active frontages are sporadic and amenity features are non-existent.
High quality, wide footpaths, with safe pedestrian crossings	Footpaths are narrow and there are numerous vehicle crossings of the footpaths causing multiple conflicts between pedestrians and traffic in an environment that is designed to prioritise traffic.
Urban amenities including street trees, planting, seating, lighting, and wayfinding	There are few items of amenity.
Streets with pedestrian activity, though not with so much activity that the footpath becomes crowded	Pedestrian activity is low, although the connections the street enables suggests that this should be a desirable route.

6.3.3 City Centre Potential



Tāmaki Makaurau’s city centre has significant potential due to wide range of factors captured in a range of studies and strategies, but of note there are several that stand out and are referenced in the City Centre Masterplan of 2012:

- It has a unique natural setting with natural features and the waterfront.
- The city centre of Tāmaki Makaurau, as the city of sails, is fronted by an active waterfront creating a special atmosphere. Areas such as Wynyard Quarter, Viaduct Harbour and the Central Wharves are high amenity areas that connect the city centre to its waterfront. This is impacted to some degree by the ongoing operations of the port of Auckland at the eastern side of the waterfront.
- It is a place of history and heritage, including both Māori and European. Currently the city centre identity is dominated by pākehā heritage, and within its city centre, Tāmaki Makaurau has failed to showcase its Māori culture and identity. This is reflected in the City Centre Masterplan transformational move “māori outcomes”.
- It is relatively accessible – the essential elements of access are in place, being enhanced by significant investment in projects like City Rail Link and potentially light rail and northern cycle route.
- The city centre is a rapidly growing neighbourhood and one in which most journeys can be pedestrian, cycle and public transport.
- It is a major place of education.
- It is Aotearoa’s largest and densest employment zone.

This potential has been recognised by the Council and the Government in various strategies and investments. There has been a programme to improve the city centre’s urban amenity that has been in place for some time and the results indicate that the city centre has the potential to respond well to addressing its urban realm.

There are examples, both in Tāmaki Makaurau and other cities, where investing in urban realm leads to improvements in the social, economic, and environmental outcomes of public space and streets. This evidence provides an indication of the potential lost value to the city centre of poor spatial allocation and resulting urban outcomes.

Fort Street Shared Space³⁸



Between 2009 and 2013, Fort Street and six surrounding streets were transformed into shared spaces, through the removal of conventional kerbs, the installation of single level paving surfaces across the full street width and the capitalisation of underused street space. This project sought to assign greater pedestrian priority to the streets, provide opportunities for a greater range of activities and provide attractive streets that would be beneficial for residents and businesses.

Despite this example being compromised by relatively high traffic volumes due to a lack of comprehensive circulation management, pre- and post-construction evaluations were carried out of the spaces, finding that the changes had significant beneficial effects. These include:

- Increase of 429% for hospitality spending
- 47% increase in consumer spending
- 50% increase in pedestrians in the space during peak hours
- A safety survey result finding that 80% of participants stated they felt safer in the space after the changes compared to before, especially at night

³⁸ http://content.aucklanddesignmanual.co.nz/resources/case-studies/street_fort_street_precinct/Documents/ADM%20Case%20Study%20Fort%20Street%20Precinct%20Auckland.pdf

Table 6-2: VURT report findings

Queen Street Transit Mall	Karangahape Road Cycleway	O'Connell Street Shared Space
<p>Testing a Queen Street transit mall between Wyndham and Victoria streets led to the following estimated benefits:</p> <ul style="list-style-type: none"> 200% increased footfall \$702,000 yearly benefit \$15,150,000 lifetime benefit 	<p>With existing footpath widths, the expected benefits were:</p> <ul style="list-style-type: none"> 320% increased footfall \$73,000 yearly benefit \$1,600,000 lifetime benefit <p>With widened footpaths the economic benefits increased to \$261,000 (yearly) and \$5,600,000 (lifetime).</p>	<p>O'Connell Street was included as a case study to test whether VURT was capable of being used retrospectively to measure the benefits of already implemented streetscape improvements. It estimated:</p> <ul style="list-style-type: none"> 150% increased footfall \$39,000 yearly benefit \$660,000 lifetime benefit.

O'Connell Street Shared Space⁴²

The conditions on O'Connell Street were enhanced by the implementation of improved streetscapes and spatial allocation, like Fort Street noted above, but unlike Fort Street, it was reinforced by the introduction of traffic restrictions that stop cut-through traffic from Courthouse Lane. Because traffic volumes are now very low, it now functions well as a shared street. Pedestrians can be observed using the full width of the street and service and delivery vehicles and emergency vehicles can easily reach destinations.

In 2015 a survey was run to understand the performance of the O'Connell Street shared space improvements. O'Connell Street was converted to a shared pedestrian and vehicle street in 2014. On-street surveys of pedestrian perception were undertaken to measure how well the street performed against the five assessment criteria of Placemaking, Pedestrian focus, Vehicle behaviour change, Economic impetus and Safety for all users. The results from the qualitative analysis of the five performance measures confirmed that the 'after' shared space environment performed positively and better than the 'before' scenario. Perception rating improved for all five assessment criteria – with the most significant improvement seen in economic impetus.

6.3.4 Summary

Most of the city centre's streets have a design that is dominated by design for traffic which is a legacy of past decision making. Carriageways are wide and footpaths are often narrow, cluttered and conflicted. The experience to date of outcomes on streets that have been improved provides evidence that the benefits are there to be realised. In currently implemented projects, this has included footfall increases of between 50% and 150% in streets that have had treatments to alter the nature of streets in terms of vehicles/improve pedestrian amenity (e.g. O'Connell Street and Fort Street). In the case of Fort Street, a shift away from vehicle-dominated design also saw a 429% increase in hospitality spending and a 47% increase in consumer spending on the street. Projected impacts of similar improvements on Queen Street and Karangahape Road predict even greater footfall increases, in the range of 200% to 320%.

⁴² https://www.australasiantransportresearchforum.org.au/sites/default/files/ATRF2015_Resubmission_102.pdf

6.4 Problem Three

High concentrations of people and high exposure to traffic results in harm and health issues from crashes, noise and pollutants

The evidence and implications for this problem is broken down and addressed in three parts:

There is a high concentration of people in the city centre

There is high exposure to traffic

This leads to harm and health issues from crashes, noise and pollutants.

6.4.1 Concentration of People

People Concentration

Traffic Exposure

Crashes

Air Quality

Noise

One of the key drivers of safety and health outcomes in the city centre is the number of people present on the street who are vulnerable to collisions and pollutants. Any risk that exists in the design or use of a street is exacerbated by very high numbers of people who might be exposed to risky and harmful situations.

Tāmaki Makaurau city centre has a highest population density (8,500 people/km²⁴³). There are an estimated 500,000⁴⁴ walking trips in the city centre each day.

Observations and consideration of the location of major public transport hubs and pedestrian generating land uses, indicate that there are several areas of particularly high pedestrian volumes, primarily driven by the land use activities and transport activities in those areas.

- Queen Street
- Symonds Street and the Learning Quarter
- Hobson Street with significant residential development
- Customs Street and the Downtown East/Britomart area with major public transport services and crossing the Queen Street Valley
- Karangahape Road.

⁴³ 2018 Census Data

⁴⁴ City Centre Masterplan 2020



Figure 6-20: High pedestrian zones in the city centre

Waihorotui Queen Street Valley

Queen Street and its periphery sit at the heart of a grid of downtown city blocks. This location at the core of the city centre and intensively pedestrian generating land uses make Queen Street a very high pedestrian zone. Pedestrian counts on Queen Street indicate that 37,000 people walk along this corridor each day.

The area in the vicinity of Aotea Square and the Auckland Town Hall is a place for significance for cultural and performing arts activities. With significant volumes of people and diverse groups at times when events are occurring.

Symonds Street/Learning Quarter

Students are concentrated in the Symonds Street area. As noted in Section 3.2 about 43,000 students are based in the city centre. Many of these students travel between classes around the Symonds Street area. These students typically walk to major commercial areas such as Queen Street and various transport locations

scattered throughout the city, particularly Britomart. 74% of students in the Learning Quarter travel to class by bus, the majority of whom board and alight on Symonds Street. This creates a very high pedestrian environment on Symonds Street and the wider Learning Quarter.

Hobson Street

There is a large cluster of residents within the city centre situated along Hobson Street, where there is a high number of apartment buildings. This results in a high number of residents crossing major roads to access commercial/employment areas as well as meeting daily needs for households and recreation.

Customs Street and Downtown East/Britomart

Customs Street forms a major barrier between the Queen Street valley and the city centre core and the waterfront, including the ferry terminal and train station at Britomart. The street is also a major bus corridor with significant boarding and alighting activity supporting the dense employment zone. This activity is expected to increase significantly with the City Centre Bus Strategy implementation. The area north of Customs Street in the Britomart and Commercial Bay precincts has also developed and continues to develop into a dense and busy retail, employment, accommodation and entertainment area. Customs Street itself and the supporting movement networks are major areas of pedestrian movement.

Karangahape Road

Karangahape Road is a place of intensive retail, entertainment and residential activity and has a particularly strong evenings and weekends peak of activity. The street is also part of a major bus movement from the west and north west and borders the Learning Quarter/Symonds Street. There is a new station for City Rail Link under construction beneath the road which will further contribute to high pedestrian levels.

6.4.2 Traffic Exposure



Traffic is a primary generator of harm to people in the street. Evidence is outlined in section 6.4.3. Given collisions require physical interaction and air quality is relatively localised, close interaction of people with traffic is a primary prerequisite for harm. Having established the high numbers of vulnerable users of the city centre's street network, the proximity of these vulnerable users to the generators of harm is now established.

The main traffic corridors are shown below in Table 6-3. Note that the ranges in average all day traffic (AADT) figures represent the variation in points along these streets where more than one count is available.

Table 6-3: Key corridor traffic volumes (Auckland Transport traffic counts)

Key Corridor Traffic Volumes					
Corridor	AADT		Corridor	AADT	
The Strand	25,000 - 48,000		Symonds Street	13,000 - 19,000	
Fanshawe Street	26,000		Karangahape Road	17,000	
Symonds Street	13,000 - 19,000		Hobson Street	9,000 - 13,000	
Nelson	15,000 - 21,000		Mayoral Drive	11,000	
Customs Street	12,000 - 17,000		Beach Road	11,000	
Queen Street	10,000 - 17,000		Wellesley	7,000-15,000	

Key Corridor Traffic Volumes			
Corridor	AADT	Corridor	AADT
Anzac Street	13,000 - 14,000	Victoria Street	8,000
Quay Street (2018)	22,000		

**Volumes vary with count locations along corridor, shown by ranges*

Many of these corridors that carry large volumes of traffic are the same places as the areas of highest pedestrian densities (refer Figure 6-21). All of the major pedestrian zones noted are bisected by high volumes of traffic. While there are some localised areas within quieter precincts such as Britomart, the waterfront and some laneways, in general there is a large overlap of high traffic and pedestrian numbers in the city centre's streets. This creates exposure of high numbers of vulnerable pedestrians to the effects of traffic.

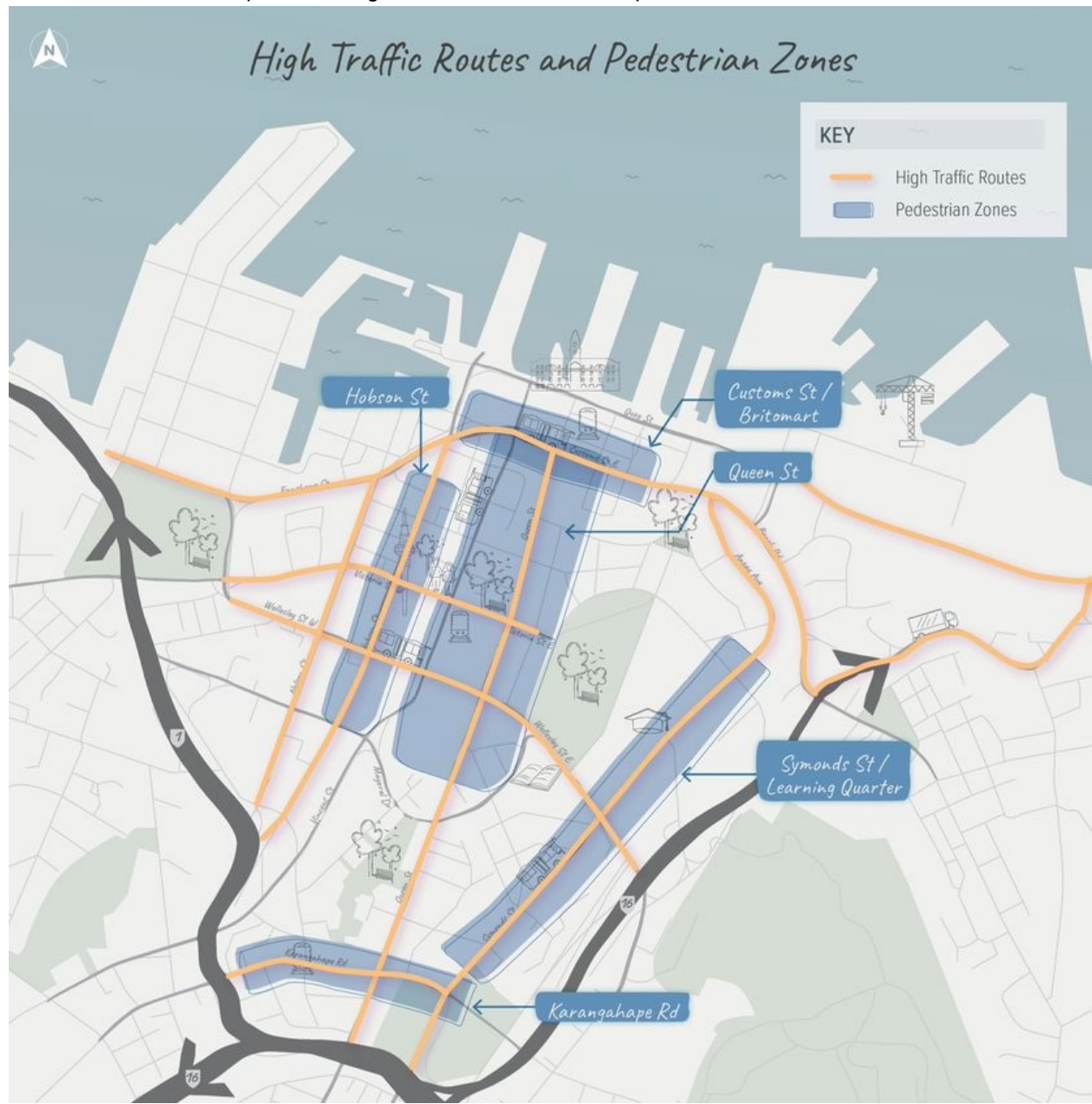


Figure 6-21: High traffic streets and high pedestrian areas

6.4.3 Harm and Health Issues

Safety - Crashes



One way in which the exposure to traffic manifests itself is in “crashes”. The term “crashes” references all collisions between road users. Where pedestrians are involved, crashes or collisions with motor vehicles generally produce a significantly higher degree of harm than other types of collisions.

Tāmaki Makaurau’s death and serious injury rates have increased by 67 per cent from 486 in 2013 to 813 in 2017. 84 per cent of city centre deaths and serious injuries involved vulnerable road users⁴⁵.

Given the high numbers of pedestrians and cyclists and their exposure outlined above, the city centre compares very unfavourably in terms of harm to pedestrians and cyclists compared to other major centres in Tāmaki Makaurau.

Figure 6-22 shows the crash data from Waka Kotahi’s CAS system for the city centre compared to Albany and Manukau metropolitan centres over ten years (2011-2021). All three areas have very similar geographic areas and yet the number of crashes occurring within the city centre is significantly higher. In addition, the proportion of incidents that included vulnerable users (pedestrians and cyclists) is significantly higher. Critically, what separates the city centre from Albany and Manukau is the number of pedestrians and their exposure to traffic.

Crash Data - Metropolitan Centres (2011 - 2021)

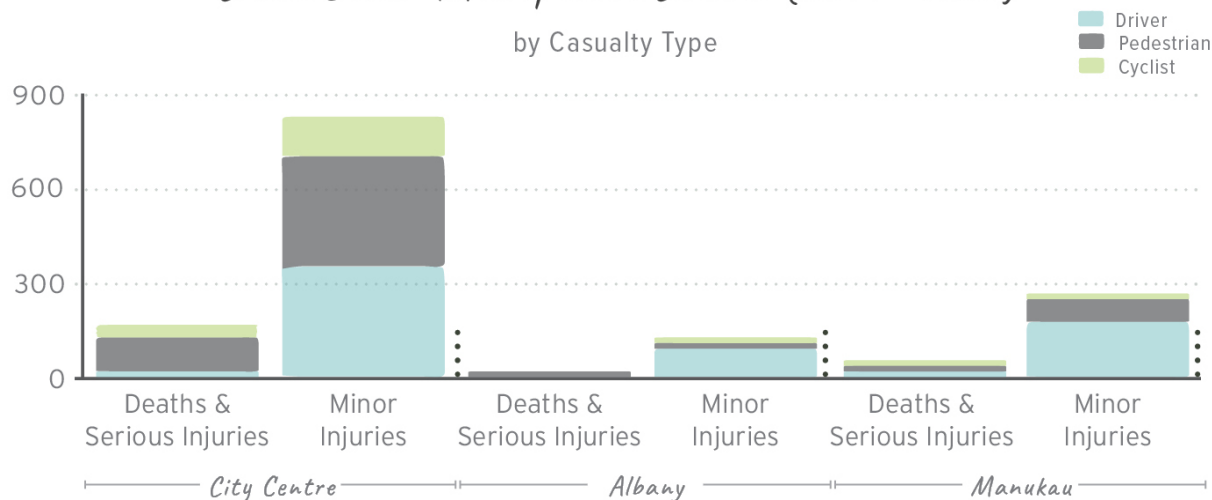


Figure 6-22: Crash data - metropolitan centres (2011 - 2021) – Waka Kotahi CAS system data

Road death and serious injury locations are also analysed to identify high-risk routes that have a high collective crash-risk (number of deaths and serious injuries per kilometre or intersection) and personal crash-risk (rate of deaths and serious injuries per vehicle kilometres travelled). Many of the city centres corridors are ranked within the highest risk intersections in the entire Auckland Region – see Table 6-4. **Four of the top ten locations for Collective Crash Risk are in the city centre** and eight of the top 30.

⁴⁵ NZTA CAS Crash Data

Table 6-4: High risk routes in the city centre

High Risk Routes in the City Centre (Ranked in the top 25 high risk routes in the Auckland Region (2012-2016 data))					
Regional Ranking	Location	Collective Crash Risk	Regional Ranking	Location	Collective Crash Risk
1	Karangahape Road	High	11	Victoria Street West	High
3	Queen Street	High	18	Beach Road	High
4	Symonds Street	High	21	Albert Street	High
7	Hobson Street	High	24	Wellesley Street West	High

The concentrations of crashes involving pedestrian that occurred in the city centre were investigated⁴⁶. This is shown in Figure 6-23. There is a high density of crashes across the city centre, however the densest clusters of crashes involving pedestrians are areas that are outlined in sections 6.4.1 and 6.4.2 where there are a high number of pedestrians and vehicles.

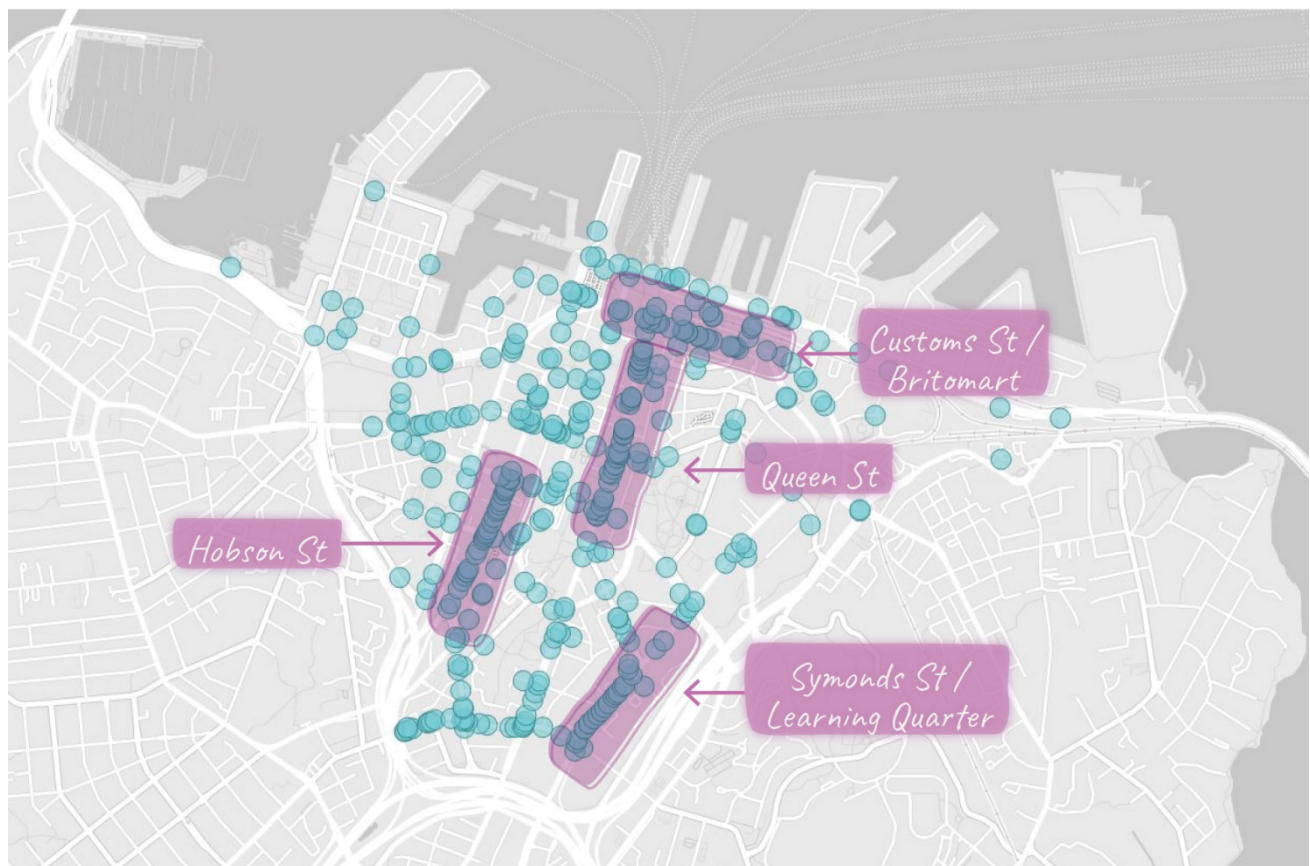


Figure 6-23: Crashes in the city centre that involved pedestrians from 2011 to 2021 (source: CAS data)

Crashes are concentrated around areas with high levels of traffic exposure:

- **Hobson Street** is a high-volume arterial corridor with five lanes of one-way traffic flow. The Hobson ridge has a very high population concentration.

⁴⁶ <https://cas.nzta.govt.nz/> (Crash Analysis System (CAS) | Waka Kotahi)

- **Queen Street** (particularly at the Wellesley Street and Victoria Street intersections). As the main spine of the city centre, Queen Street carries the highest volume of pedestrians of any city corridor.
- **Customs Street** and the **Britomart** area has some of the highest volumes of pedestrians within the city centre. Customs Street carries a high volume of traffic – with an ADT of 12,000 - 17,000.
- **Symonds Street** (particularly around the Grafton Bridge intersection, and Symonds Street bus stops) has a high number of vehicles coming from Symonds Street and Karangahape Road, high bus volumes, and a large volume of pedestrians and cyclists from Karangahape Road, Symonds Street and Grafton Bridge.

This data indicates that there is a very strong relationship between high numbers for pedestrians being exposed to high numbers of vehicles and actual and potential harm.

Air Quality

People Concentration

Traffic Exposure

Crashes

Air Quality

Noise

Exposure to traffic also manifests itself in harm from poor air quality. Studies suggest that the air quality of Tāmaki Makaurau’s city centre may currently exceed the World Health Organisation (WHO) Ambient Air Quality Guideline.

The Personal Exposure to Noise and Air Pollution (PENAP) study⁴⁷ showed that levels of traffic-related air pollutants on city centre streets with moderate to heavy traffic can be double the levels found in adjacent low-traffic/shared spaces. The highest levels of pollution were found on and around Customs Street with NO₂ levels reaching 50µg/m³, 25% over the WHO guideline value of 40µg/m³. The study estimates that annual mean concentrations of the traffic-related pollutant nitrogen dioxide (NO₂) are close to, or slightly exceed the Ambient Air Quality Guideline in several streets in Tāmaki Makaurau’s city centre.

The initial COVID-19 lockdown again highlighted a strong correlation between traffic volumes and air quality levels. With light traffic volumes decreasing by an average of 80% per day⁴⁸. Heavy vehicle traffic volumes dropped by an average of 60% per day. NO₂ levels subsequently decreased by 34% in Central Auckland (Queen Street and Customs Street)⁴⁹ This is despite buses operating at almost full service levels, illustrating the effects of general traffic on air quality.

Concentrations of pollutants measured at Queen Street are significantly higher than those measured at all other permanent monitoring sites in Tāmaki Makaurau. Urban background concentrations represent residential locations away from significant transport sources and can be considered a baseline for urban Tāmaki Makaurau. Therefore, comparison of concentrations from peak sites with the urban background provide an indication of the impacts from prominent local emission source(s).

⁴⁷<https://knowledgeauckland.org.nz/media/1572/tr2014-036-personal-exposure-to-noise-and-air-pollution-penap-in-the-queen-street-valley-auckland.pdf>

⁴⁸ <https://www.auckland.ac.nz/en/news/2020/09/30/fewer-vehicles--less-air-pollution.html>

⁴⁹ Implications for air quality management of changes in air quality during lockdown in Auckland (New Zealand) in response to the 2020 SARS-CoV-2 epidemic

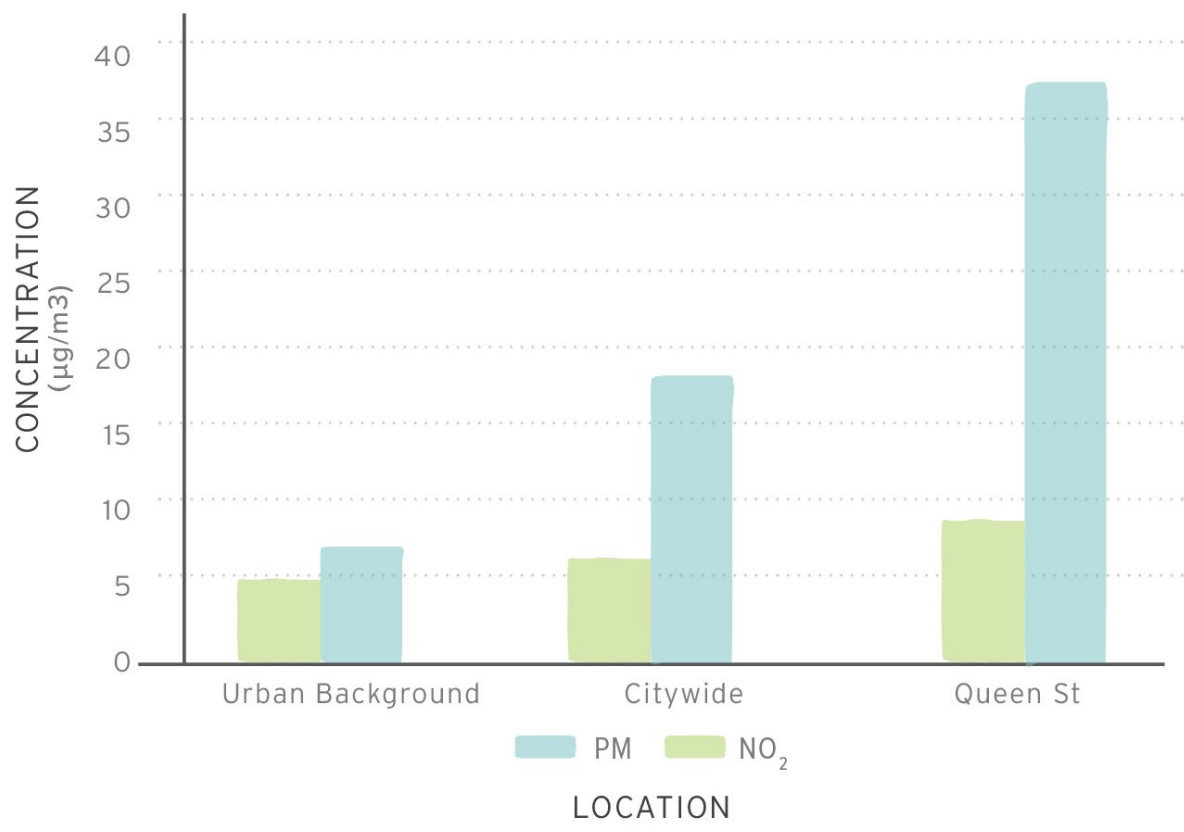
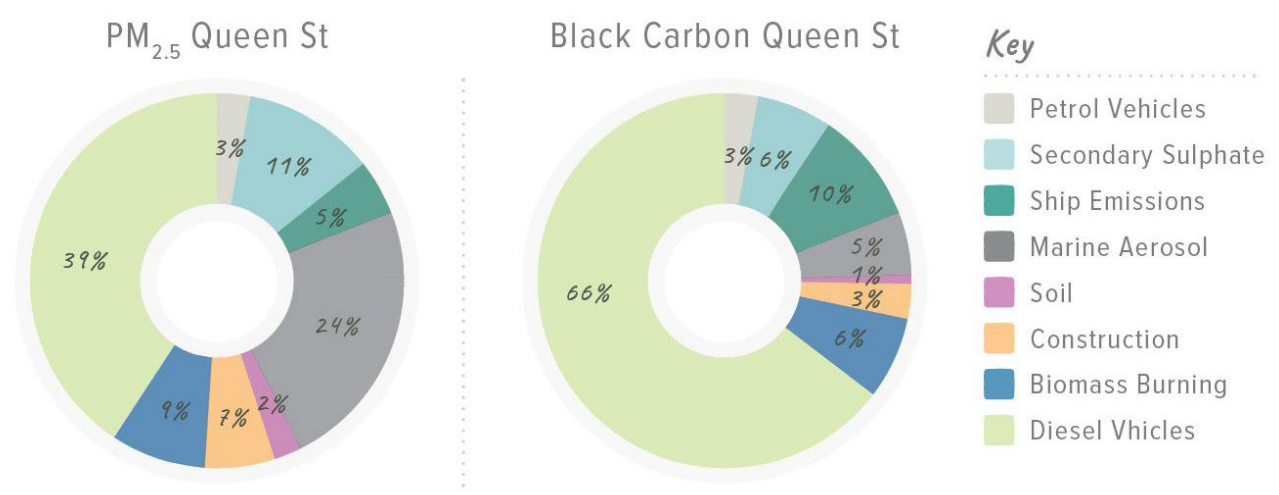


Figure 6-24: 2006-2016 annual averaged data for PM_{2.5} (blue) which is fine particulate matter and NO₂ (green) at Auckland Council’s urban background site (Glen Eden), Citywide (Penrose, Takapuna and Henderson) and Queen Street monitoring locations.

This data means that the highest concentration of people in Tāmaki Makaurau are exposed to significantly higher levels of pollutants than the average for the region and at levels that are close to, if not exceeding, global air quality guidance.

Data obtained from the Queen Street air quality monitoring site provides robust information on the sources of pollutants released at that location.



Source apportionment data from filter measurements on Queen Street that identified PM_{2.5} (Left) and Black Carbon (Right) (Davy and Trompetter 2017).

Figure 6-25: Sources of emissions - Queen Street

Figure 6-25 shows the sources of emissions for Queen Street averaged over an eight-year period. Diesel vehicles were found to be the largest emission source of particulates (at 39%). When looking at black carbon measurements, 66% comes from diesel vehicle emissions with the second largest contribution coming from shipping emissions at the waterfront (10%). Concentrations of black carbon within Tāmaki Makaurau’s city centre are higher than in urban areas of any other OECD nations⁵⁰.

The implications of this data is that the places in Tāmaki Makaurau that the Auckland Plan and City Centre Masterplan seek to be the most desirable for people are in fact unhealthy and likely to result in harm to people due to poor air quality. The air quality is primarily the result of traffic and its close proximity to people.

Noise



Exposure of people to traffic in close proximity places people in a high noise environment. The same causes of exposure resulting in crashes and air quality also have a role in exposure to noise.

The PENAP study also shows that noise levels may currently exceed WHO guidelines. The PENAP study conducted noise measurements at various streets and types of areas around the city centre. Customs Street in the morning exhibited the highest daily average noise levels around 76dBA. The WHO guidelines recommend a max noise level of 70dBA for industrial, commercial shopping and traffic areas.

The PENAP study also found that ‘urban dwellers’ of the city centre find traffic as their least preferred sound.

The Inner-City Residents Survey Research report⁵¹ covers a 2013 survey of inner-city residents, which emerged out of the local board's desire to understand residents' concerns around specific issues. It identified key themes which highlight the positives of inner city living, as well as several areas as requiring improvement, for example the level of noise on the street, both during the day and at night. Safety and security were also concerns with residents wanting higher levels of police presence. It found that those that were dissatisfied with the level of noise indicated that traffic was the main source both during the day and night.

6.4.4 Summary

As Tāmaki Makaurau’s premier place of employment, learning, events and cultural activities as well as being a dense living environment, it is important that the city centre is a safe and healthy place to move around, dwell and carry out street-based activities.

⁵⁰Nick Talbot and Rita Lehn, “The Impacts of Transport Emissions on Air Quality in Auckland’s City Centre” (December 2018)

⁵¹<https://static1.squarespace.com/static/58e441d2f7e0abde3be51110/t/59732ae13a041155fa379db0/1500719849459/innercityresidentsfinalreport041113.pdf>

6.5 The Benefits of Investment

The potential benefits of successfully investing to address the problems were identified as part of a second facilitated workshop. The problem owners’ panel identified and agreed the following potential benefits from resolving these problems:

- Changes in access to economic opportunities
- Impact on system reliability, network productivity and utilisation
- Changes in access to social and economic opportunities and the liveability of places for Aucklanders
- Changes in access to social and economic opportunities and the liveability of places for tourists and visitors
- Impact on social cost of deaths and serious injuries and perceptions of safety and security
- Impact of air emissions, noise and vibration on health.

These benefits were used as the basis for developing investment objectives and performance measures used for assessing options and alternatives. The benefit map is attached as Appendix H.

6.6 Key Performance Indicators

To assess options against the Investment Objectives and to determine the level of “benefit” that could be derived, a set of Key Performance Indicators (KPIs) were developed.

Figure 6-26: Objectives and KPIs

ILM Benefits	%	Investment Objectives	Indicators
To enable the city centre to achieve its potential as a place of business and employment 20%	20%	Changes in access to economic opportunities	Access capacity (People throughput & spatial coverage of cycle and PT infrastructure)
			Access to key economic destinations (City Centre)
Improve access for freight and service & delivery to better serve businesses, residents and events 20%	20%	Impact on system reliability, network productivity and utilisation	Efficiency of deliveries/servicing (Specialist assessment)
			Travel time reliability for freight, service & delivery
Improve the desirability of the city centre as a place for economic, cultural and social activities for Aucklanders 20%	20%	Changes in access to social and economic opportunities and the liveability of places for Aucklanders	Townscape: Allocation of space for social and cultural activities
			Amenity value – built environment
			Townscape: Vehicle volumes
Improve the experience for and growth in tourism and visitors 7%	7%	Changes in access to social and economic opportunities and the liveability of places for tourists and visitors	Pedestrian delay & Perception of access
			Townscape: Allocation of space for social and cultural activities (as above)
	23%		Crashes by severity



ILM Benefits	%	Investment Objectives	Indicators
Reduce harm to all users from crashes 23%		Impact on social cost of deaths and serious injuries and perceptions of safety and security	Deaths & serious injuries and collective risk Access - Perception
Reduce the exposure of people to harmful noise and emissions 10%	10%	Impact of air emissions, noise and vibration on health	Ambient air quality Noise level

7 Strategic Alignment

The outcomes sought in solving the problems defined in this PBC are strongly aligned with the policy and strategy framework at a national and local level. Alignment with the Government’s and with the partner organisations’ outcomes, impacts and objectives is an important indicator of the project’s importance and likelihood of success.

7.1 Government Policy Statement on Land Transport 2021/22-2030/31

The Government Policy Statement on Land Transport 2021/22-2030/31 (GPS) sets out the Government’s priorities for the National Land Transport Fund.

The Government Policy Statement contains four strategic priorities. Resolving the problems identified in the Access for Everyone PBC directly contributes strongly to each:

Table 7-1: Government Policy Statement on Land Transport Strategic Priorities (source GPS 2021)

Strategic Priorities:



Safety: Safety is at the core of Problem 3 and there is evidence to suggest that benefits will be significant in addressing serious safety issues in the city centre. The city centre is shown to be a high-risk area for vulnerable users in particular.

Better travel options: The Access for Everyone problems are based around rebalancing the city centre’s streets to give effect to the transport choices required in the city centre. The city centre has a wide range of travel choices, however some of the most effective choices are not as attractive or viable as they should be due to the issues identified in this PBC. Addressing these problems would enhance the most effective and efficient travel choices for the city centre.

Climate change: The PBC seeks a rebalancing of the network to reduce car dependence and promote active modes and public transport which is highly aligned with the Government Policy Statement. In supporting the ability of the city centre to become a dense place of employment and living, the PBC is supporting the opportunities to for people to walk, cycle and use public transport.

7.2 The Auckland Plan 2050

The Auckland Plan 2050 outlines the major challenges that the city faces and sets the direction for tackling them. It establishes the importance of the city centre in Tāmaki Makaurau’s development, noting in particular:

- The city centre is Tāmaki Makaurau's primary centre
- It plays a critical role in the success of both Tāmaki Makaurau and Aotearoa
- One of its strengths is the concentration of population and economic activity
- It is the main location for business, tourism, educational, cultural and civic activities in Tāmaki Makaurau, and includes the city fringe areas of Parnell, Grafton, Newmarket, Newton and Ponsonby.

The Plan refers to the City Centre Masterplan as the vehicle for establishing outcomes in the city centre. This is discussed in detail in section 2 of this PBC and Access for Everyone is a core part of the Master Plan. The problems identified in this PBC are aligned strongly with the outcomes sought in the City Centre Masterplan and in turn the Auckland Plan. Supporting the city centre’s access, amenity and safety will help the centre become the primary place of business, education, living and recreation that the Auckland Plan seeks.

In respect of Transport and Access, the Plan establishes three “Directions:

- Direction 1: Better connect people, places and services
- Direction 2: Increase genuine travel choices for a healthy, vibrant, equitable Auckland
- Direction 3: Maximise safety and environmental protection

Resolving the problems in this PBC is highly aligned with these directions enabling better provision for efficient and effective transport modes, improving urban amenity and user experience and improving safety.



7.3 The City Centre Masterplan

The City Centre Masterplan sets out a vision for the heart of the city, it is a key guiding document for the Auckland Council whanau and sets the strategic direction for the city centre over the next 20 years.

Its ten outcomes and eight transformational moves are based on the six outcomes underpinning the Auckland Plan 2050. The City Centre Masterplan is a key component of the wider implementation plan in support of the Auckland Plan and the Auckland Unitary Plan (refer Figure 2-1).

Considering the relevance of the City Centre Masterplan to Access for Everyone the masterplan has been covered in greater detail earlier in Section 2. Access for Everyone is critical for enabling the outcomes sought by the City Centre Masterplan.

While this PBC is named “Access for Everyone” and has its origins in the City Centre Masterplan and its Access for Everyone component, the PBC considers the *outcomes* sought by Access for Everyone and sets aside the specifics to ensure that the testing process is robust and transparent.

7.4 Waka Kotahi – Statement of Performance Expectations 2020/2021

The Statement of Performance Expectations sets out how Waka Kotahi will measure the financial and non-financial performance of the activities it delivers and invests in. The Statement refers to a strategy made up of three responses and eight position statements. All three of the Strategic Responses are aligned with the outcomes sought from this PBC:

- **One connected transport system**, seeks “*to create a safe, connected system that works for everyone*” which is at the core of the City Centre Masterplan and Access for Everyone’s desire to develop streets that enable people to move and meet their needs safely through the city centre’s many spaces, including streets, transport terminals, parks and private spaces.
- **People-centric approach** seeks to simplify people’s experience and “*make it easy for them to do what they need to*”. Access for Everyone seeks to create an integrated, legible system that prioritises the ways of moving that best meets people’s needs in the city centre. The Statement further notes that “*This strategic response also addresses the government’s overarching goal to ensure transport plays its part in shaping the kinds of places that people want to live and work in*”.
- **Partnerships for prosperity** seeks to set up targeted partnerships to unlock the opportunities for Waka Kotahi’s customers. Access for Everyone is born from the City Centre Masterplan led by Auckland Council and the programme business case is being delivered by AT, in partnership with Waka Kotahi. Access for Everyone is an integrated partnership approach to delivering aligned organisational outcomes.

7.5 Auckland Transport Statement of Intent 2019/20 – 2021/22

In its Statement of Intent (SOI), Auckland Transport sets out nine “Strategic Priorities”. These are important drivers of AT’s priorities and there is a very high level of alignment between solving the Access for Everyone problems and these priorities. Of particular relevance are the following:

- **Making Auckland’s Transport System Safe by eliminating harm** – is directly aligned with the Access for Everyone problems in that one of the problems is based around improving safety. The city centre is demonstrated in this PBC to be a high priority location for improving safety outcomes.
- **Improving the Resilience and Sustainability of the Transport System and significantly reducing greenhouse gas emissions** – involves “*working with other agencies*”, “*encouraging a shift to public*

transport” and *“reducing transport emissions”*. These outcomes underpin the Access for Everyone problems which recognise the imbalanced provision of transport capacity in favour of traffic and develops a multi-agency approach.

- **Accelerating Better Travel Choice for Aucklanders** – involves improving public transport, walking and cycling. Solving Access for Everyone’s problems will directly and specifically result in improved public transport, walking and cycling in the densest area for such activity.
- **Better Connecting People, Places, Goods and Services** – is intended to get more from the network. Access for Everyone, being focused on the most physically and operationally constrained part of the network aims to address the allocation and prioritisation of the city centre’s streets to better connect people, goods and services.
- **Enabling and Supporting Auckland’s Growth** – has a specific aspect of focus on the city centre. The Priority states that Auckland Transport will *“work with Council, Panuku Development Auckland and other agencies to progress planning for initiatives that will transform the city centre into a more family, pedestrian and environmentally friendly place, and minimise disruption”*.

7.6 Auckland Transport Alignment Project

Solving the Access for Everyone problems is highly aligned with the Auckland Transport Alignment Project (ATAP) programme 2021-2031. The Access for Everyone outcomes are aligned with its outcomes in terms of:

- Accelerating mode shift to public transport, walking and cycling by redressing road space allocation and prioritising efficient modes
- Contributing to climate change outcomes by reducing emissions
- Increasing access to jobs with the city centre being a key location for jobs
- Improving safety outcomes.

Access for Everyone’s outcomes support a co-ordinated programme which is likely to assist in getting more from a range of proposed investments in the Auckland Transport Alignment Project, including:

- City Rail Link
- Wynyard Quarter Road Programme
- Network performance
- Investments in cycleways
- Improvements to Downtown
- Bus improvements throughout the city centre
- Improvements in support of freight and port access
- Supporting electric vehicle take-up.

7.7 Vision Zero

Vision Zero is an ethics-based transport safety approach that places responsibility on people who design and operate the transport system to provide a safe system.

Vision Zero for Tāmaki Makaurau - A Transport Safety Strategy and Action Plan to 2030 is Auckland Transport’s safety strategy and action plan, developed to focus on safety in order to address the road safety

crisis identified in the 2018 Auckland Transport Road Safety Business Improvement Review. By 2050, Auckland Transport aim to eliminate transport deaths and serious injuries (DSI) in Tāmaki Makaurau by implementing the principles of Vision Zero.

Improving safety on Aotearoa’s roads is also a priority for Waka Kotahi, with Vision Zero embedded in ‘Road to Zero 2020-2030’, Waka Kotahi’s road safety strategy. Road to Zero sets an initial target to reduce deaths and serious injuries on Aotearoa’s roads, streets, cycleways and footpaths by 40 percent over the next 10 years. Road to Zero’s five focus areas are infrastructure improvements and speed management, vehicle safety, work-related road safety, road user choices, system management.

Vision Zero is also embedded in many other key strategies – including the Auckland Transport Alignment Project (ATAP), the Government Policy Statement on Land Transport and the Auckland Plan.

The city centre, as covered above in Section 6.4.3, is a high-risk area for crashes, with a high concentration of crashes, particularly for vulnerable users. Solving the safety issues in the city centre is highly aligned with Vision Zero.

7.8 Future Connect

Future Connect is a 10-year system planning tool (building towards a 30-year outlook) for Tāmaki Makaurau’s transport network. It brings all transport modes together into an integrated system. The city centre is a “*Category 1 Focus Area*” in Future Connect and the Access for Everyone PBC addresses as deficiency in that the Future Connect suggests that Focus Areas should have a project dedicated to solving these problems.

There is strong alignment between the Problems and Objectives for Future Connect and those of the Access for Everyone PBC, albeit that Access for Everyone problems are overtly city centre-focused. Future Connects Problem Statements relate to:

- Providing access to employment and social opportunities
- Providing alternative choices to the private car
- Reducing emissions and improving environmental outcomes
- Improving safety.

These are all captured in the Access for Everyone problems and expressed in terms specific to the city centre.

Problem statements

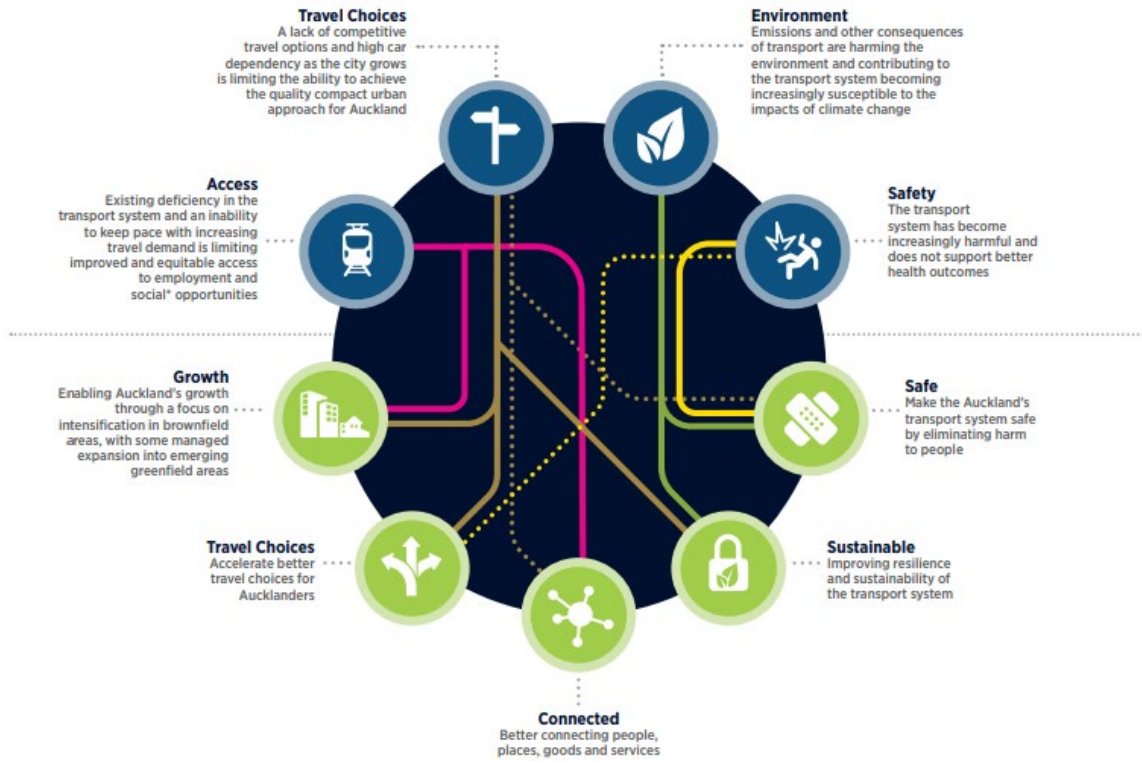


Figure 7-1: Future Connect problems and benefits

8 Issues, Uncertainties and Constraints

Figure 8-1 below lists issues that introduce uncertainties for the programme. There are multiple factors that may influence the long-term travel demand forecasts, some of these factors may significantly change transport supply within the study area and factors that may influence the costs of the programme.

Figure 8-1: Issues and uncertainties log

Factor	Timing	Uncertainty	Impact	Comments
Factors Affecting Demand				
Land-use change: scale, location, timing of development	Ongoing	More than likely	High	Uncertainties about the future geographic distribution of population and employment growth could affect scale and timing of travel demand to the city centre.
Future public transport demand.	Immediate and ongoing	Reasonably foreseeable	High	Uncertainties around the level of demand for travel to the city centre by public transport. Dependent on response to future public transport projects and other policy and strategies.
Disruptive technology affects demand for travel	Long term	Reasonably foreseeable	Medium	Uncertainties in relation to total demand for travel to the city centre, particularly for employment.
New legislation influences land use and/or demand for travel	Immediate and ongoing	Reasonably foreseeable	Medium	Government policy may have an impact on development and transport options that may change the profile of demand for travel.
Major events cause significant spikes in demand	Periodic	More than likely	Medium	Decisions around events or major initiatives may cause significant changes in demands on the network.
Factors Affecting Supply				
Significant changes in funding allocation and priorities	Immediate and ongoing	Reasonably foreseeable	High	Unforeseen changes in priorities may change the nature, timing and scale of supply of transport solutions, influencing the city centre's network.
Pressure from external sources causes changes in network allocation or implementation	Immediate and ongoing	Reasonably foreseeable	High	Influences, political or community may influence decisions over street allocation and implementation
Light Rail	Next 10 years	Reasonably foreseeable	High	Uncertainties about the scale, timing and form of rapid transit connections to the city centre (Northwest and Central Isthmus)
Factors Affecting Cost				
Uncertainty of timing / and inter-dependencies with other projects currently planned or underway in Tāmaki Makaurau	Ongoing	Reasonably foreseeable	Medium	There is a risk that the proposed timing and interventions proposed are affected due to designs and proposals developed in other projects.

Factor	Timing	Uncertainty	Impact	Comments
Other Factors				
COVID-19	Ongoing	Reasonably foreseeable	Unknown	The impact of the COVID-19 crisis is as yet unknown and has led to an increased level of uncertainty across all aspects of decision making. It increases funding uncertainty on this and other interdependent projects.
Legal mechanisms/ controls for restricting sections of roads to certain vehicles are challenging to implement and enforce	Ongoing	Reasonably foreseeable	High	Similar issues are common to other road controlling authorities. The Reshaping Streets workstream being led by the Ministry of Transport may lead to legislative changes that will help to resolve this issue.

Potential constraints that will impact the programme options include:

- The city centre is highly constrained by the multiple construction programmes underway. They include, but are not limited to, the impacts of the City Rail Link construction which continues to 2024
- Spatial constraints (eg street width) within the densely built-out city centre
- Planning, feasibility, operational and implementation constraints.

ECONOMIC CASE

9 Assessment Process

The assessment of options was carried out in several stages, which are described in the following sections. In summary these initially followed the standard process of considering *alternatives* then *options* to develop a long list, then using the MCA to start to develop a short list. The short list differed from the norm in that the short list options were not all mutually exclusive but comprised geographically distinct interventions which could be implemented separately to build towards achieving the overall goals.

- The long list options and their assessment are summarised in Section 10, with a detailed assessment included as Appendix F.
- The short list options and enabling strategies and their assessment are summarised in Section 11 Section 11.5 and detailed in Appendix G.
- The te ao Māori assessment is included as Appendix L.

A key part of the Access for Everyone programme is the sequencing and ongoing management of the programme. This assessment is included in Section 12.



Figure 9-1: Structure for the Economic Case

9.1 Assessment Framework

The options were evaluated against an agreed Multi Criteria Analysis (MCA) framework. The process included use of an MCA method in accordance with Waka Kotahi’s *Multi-Criteria Analysis: User Guidance (August 2020)*. The criteria were drawn from the:

- Investment objectives
- Technical/feasibility assessment.

The KPIs developed in the strategic case (Section 6.6) linked to measures that were used in the assessment. This was as quantitative as possible, but had some qualitative professional evaluations as is normal at PBC stage.

The investment objectives, measures and KPIs, along with their assessment methodology are described in Table 9-1. As noted earlier, the KPIs and measures are largely drawn from Waka Kotahi’s standard set with a small number of ‘user defined’ measures.

Table 9-1: Investment Objectives and KPIs

Investment Objectives	Measure/ KPI	Assessment
Improve the productivity of the city centre	Access capacity	Multi-modal Access capacity on key city centre access routes including Fanshawe, Customs, Beach, Symonds, Wellesley, Albert, Hobson, Nelson streets

Investment Objectives	Measure/ KPI	Assessment
	Accessibility & catchment	Change in travel time and travel choices - change in catchment and choice from do minimum
Improve access for freight and service & delivery	Efficiency of deliveries/ servicing	Specialist assessment
	Servicing/ freight access route reliability	Travel time reliability/ congestion along the Strand, the motorway and Fanshawe, Nelson, Hobson streets
Improve the amenity of the centre city	Allocation of space for social and cultural activities	Change in amount of space from do minimum allocated to parks and public spaces
	Quality of the public realm	Change in ability to improve amenity through increased space for residents and pedestrians, and urban design elements such as public seating, street trees, and planting
	Change in vehicle volumes	Change in vehicle volumes travelling to, from and within the city centre
Improve the experience for and growth in tourism and visitors	Pedestrian experience	Ease of movement for pedestrians throughout the city based on proposed outcomes (widths, opportunities for trees and parks etc)
	<i>Allocation of space for social and cultural activities (as above)</i>	
Reduce harm to all users from crashes	Assessment of safety	Assessment of safety based on design outcomes (x-sections) and known risk factors from empirical data
	Deaths and serious injuries	Assessment of likely deaths and serious injuries based on observed causes of deaths and serious injuries and risk factors reduced in proposed outcome
	Deaths and serious injuries (vulnerable users)	Assessment of likely deaths and serious injuries based on observed causes of deaths and serious injuries and risk factors reduced in proposed outcome
Reduce the exposure of people to harmful noise and emissions	Air quality exposure	Estimated change in vehicle volumes from do minimum on Queen, Symonds, Nelson, Hobson streets and Karangahape Road
	Noise level exposure	Estimated change in vehicle volumes from do minimum on Queen, Symonds, Nelson, Hobson streets and Karangahape Road

Technical and feasibility assessments were undertaken by appropriate specialists based on different aspects relevant to the options as described in Table 9-2 below. Each option was assessed against the criteria including to highlight any critical feasibility issues or areas of significant risk.

As is normal, a seven-point scale (-3 to +3) was used for all the ratings.

No traffic modelling was done as part of this PBC. Earlier concepts of A4E were modelled as part of CCMP approval processes. The modelling showed significant rerouted traffic being directed to the motorway network, in particular SH16, Grafton Gully boulevard.



Table 9-2: Technical Feasibility Assessment Criteria

Potential Achievability	Assessment of feasibility
Potential affordability	Assessment of likely capital costs
	Assessment of likely OPEX
Climate change mitigation	Assessment of mode shift and change in traffic volume, vehicle kilometres travelled
Impacts on Te Ao Māori	Assessment of any special impact
Property impacts	Assessment of likely scale of property impact – including access to properties

9.2 Do Minimum



Figure 9-2: Illustration of the do minimum

The do minimum has been used as a reference point for the assessment. It includes projects in construction or viewed as likely to occur in the next ten years, including:

- City Rail Link in operation, with two new city centre stations (Karangahape Road and Aotea)

- Queen Street low traffic area (between Customs Street and Mayoral Drive) in the form of the current Queen Street Project
- Wellesley Street Transit Mall (Federal Street to Lorne Street)
- Te Hā Noa Victoria Street Linear Park (Federal Street to Kitchener Street)
- Committed city centre cycle projects
- Committed council-led projects
- City Centre Bus Strategy – operation pattern with no new supporting infrastructure.

City Rail Link in operation (with Karangahape Road, Aotea and reconfigured Britomart stations open)

City Rail Link is being delivered by City Rail Link Limited which is a joint venture between Council and Government. As part of the City Rail Link project, two new stations are proposed:

- Aotea, beneath Albert Street with entrances onto Wellesley Street, Albert Street and Victoria Street
- Karangahape Road with entrances adjoining Karangahape Road, Pitt Street and Mercury Lane.

In addition, Britomart is reconfigured to be a through station.

These projects are included within the do minimum as they are under construction – with completion expected by late 2024. It is assumed that City Rail Link Limited's scope will be restricted to 50m from station entries.

Waihorotiu Queen Street Project

Queen Street is being delivered by Auckland Council in partnership with AT. This component is the proposed re-allocation of space on Queen Street as reflected in the Queen Street Project and is approximately between Customs Street and Mayoral Drive. The do minimum assumes that the project is implemented and there is a de-prioritisation of traffic both along and across Queen Street through physical and operational measures.

This component is funded and approved, with implementation expected in 2021-2022.

Wellesley Street Bus Corridor

Wellesley Street is being delivered by AT. While Wellesley Street's entire length will be a major bus corridor (reflected in the City Centre Bus Strategy), the section between Lorne Street and Federal Street is most advanced and certain as a physical works project and will change the ability for traffic to use the street (approximately between Elliot Street and Mayoral Drive). This project is important to allow the street to deal with the expected pedestrian volumes from Aotea Station. There is some risk that the project will not proceed, or detailed design will change its scope, however it is considered sufficiently certain to meet the test of the do minimum.

Te Hā Noa Victoria Street Linear Park

Te Hā Noa Victoria Street Linear Park is being delivered by Council. The proposed linear park between Federal Street and Kitchener Street involves reallocating street space to retain one traffic lane in each direction with the remainder of the street being allocated to active modes and public/green space. This project is important to allow the street to deal with the expected pedestrian volumes from Aotea Station. While the long-term proposal in City Centre Masterplan Transformational Move 6 is to create a green link between the city centre's eastern edge and its western edge at Wynyard, only the committed central section is included. While this project is approved, it is not yet procured.

City Centre Bus Plan Operating Pattern

The City Centre Bus Plan is being delivered by AT. The operating pattern of the City Centre Bus Plan is included as per AT's White Paper and assumptions include:

- The downtown crossover, which envisions the through running of North Shore services to Quay Park, Tāmaki Drive services to Wynyard Quarter and Isthmus services to Lower Albert Street. These routes would run along Fanshawe Street, Customs Street and Beach Road. The isthmus services would run along the length of Symonds Street/ Anzac Avenue.
- Midtown services running along Wellesley Street would include services from the North Shore from the west, and Isthmus services from the east.
- Northwest services terminating downtown via Albert Street.
- New terminals to support the network and some bus priority is assumed, although exact form and locations are not defined.

It has been approved by Auckland Transport and an indicative business case has commenced. There is a risk that the plan is modified in future as implementation is rolled out, however the operating pattern is reasonably certain.

As the operating pattern has been assumed with some limited priority improvements, it is assumed that the bus plan can be implemented as an operating pattern, however its performance will be limited due to the limited priority and supporting infrastructure.

Light rail

For clarity, Auckland Light Rail is not included in the do minimum. While this project is under consideration at the time of writing (September 2021), it is not funded and the options under consideration vary significantly, including above and underground options which will have significantly different effects on city centre streets. As noted in Section 12, such uncertainties will need to be managed in the programme implementation and will affect the ultimate timing and sequencing of components of the recommended programme.

9.2.1 Implications of the Do Minimum

General

With the do minimum, it is expected that the outcomes sought in the City Centre Masterplan cannot be achieved. In particular, there are expected to be:

- Poor outcomes against the objectives. The spatial allocation issues, lack of efficiency, poor amenity and safety issues will remain.
- Poorly integrated city centre projects, programmes and workstreams. Implementation of projects like the Queen Street Project, Wellesley Street bus corridor and Te Hā Noa Victoria Street Linear Park will result in un-managed traffic diversions creating poor outcomes across the city centre. There is also a likelihood that the benefits of major investments in the city centre such as City Rail Link will not be fully realised through poor pedestrian provision and traffic-dominated streets.
- An inability to meet strategic goals as well as climate change commitments though a retention of vehicle access priority limiting the potential mode shift to low carbon or no carbon modes of travel.
- Poor ability to effectively manage demand and operation, servicing, loading and access within the city centre for business and residents.

Climate change commitments

- Auckland Council has adopted Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan. Under this plan, *Key Move 4: Transform Existing Buildings and Places* identifies a Zero Carbon, Resilient City Centre as a flagship action.
- Auckland Council also has an existing commitment to the C40 Fossil Fuel Free Streets Declaration to procure only zero-emission buses from 2025 and crucially, create a Zero-Emissions Area (ZEA) in the city centre by 2030.

With most emissions and air pollution in the city centre generated by motor vehicle traffic, changing the operation of the city centre is a step in meeting Tāmaki Makaurau and Aotearoa's climate change commitments.

City Centre Masterplan

The do minimum includes several vital enhancements to the city centre – with improvements in city centre access capacity, public transport coverage and priority, an increase in space for active modes, and public space enhancements. The do minimum scenario will lead to an improvement in the city centre environment compared to current and 'do nothing' conditions.

However, the Do Minimum alone cannot meet the stated city centre objectives and commitments, as shown in the MCA assessments.

In particular, the do minimum alone will not enable the meeting of several of the Transformational Moves identified in the City Centre Masterplan (2020). The moves which particularly identify A4E as required component are:

- Transformational move 2: The east and west switch
- Transformational move 3: Waihorotiu/Queen Street Valley
- Transformational move 4: The Learning Quarter

Additionally, with the Do Minimum alone, the remaining transformational moves in the City Centre Masterplan would see significant further benefit by the introduction of additional interventions outlined in this PBC.

City Centre Bus Plan Operating Pattern

It is assumed that the City Centre Bus Plan will operate regardless of Access for Everyone, but that the infrastructure elements of the plan would be enabled by Access for Everyone. Without infrastructure changes, there is insufficient space and priority to operate the bus plan well. People waiting for buses on Customs Street would be required to wait in the same space as pedestrians trying to walk along the corridor, in combination with an increased number of vehicles on the corridor in close proximity to a large number of pedestrians, the air quality and general amenity within the downtown area is expected to worsen. Without improved priority and reduction in conflicts with general traffic, service performance is expected to be impacted, with trips becoming slower and less reliable.

10 Long List Assessment

In accordance with the Waka Kotahi hierarchy, the long list assessment considered a range of **alternatives** varying from system-wide interventions such as demand management, to infrastructure-heavy approaches, for example the grade separation of general traffic. The concept sitting behind the City Centre Masterplan vision of creating a movement plan for general traffic in the city centre was included in the long list as a *circulation plan*. The long list alternatives were derived from considering the widest possible range of transport interventions and inclusion of all aspects of the intervention hierarchy.

The long list has been developed to align with Auckland Transport and Waka Kotahi’s expectations in regard to developing a PBC, including (Figure 10-1):

- Consideration of “alternatives” which represent a broader solution type than an “option”
- Considering integrated planning with other agencies, including the private sector
- Considering different ways of demand management
- Considering productivity through different or more efficient use of existing assets and services
- Considering augmenting supply of transport capacity.

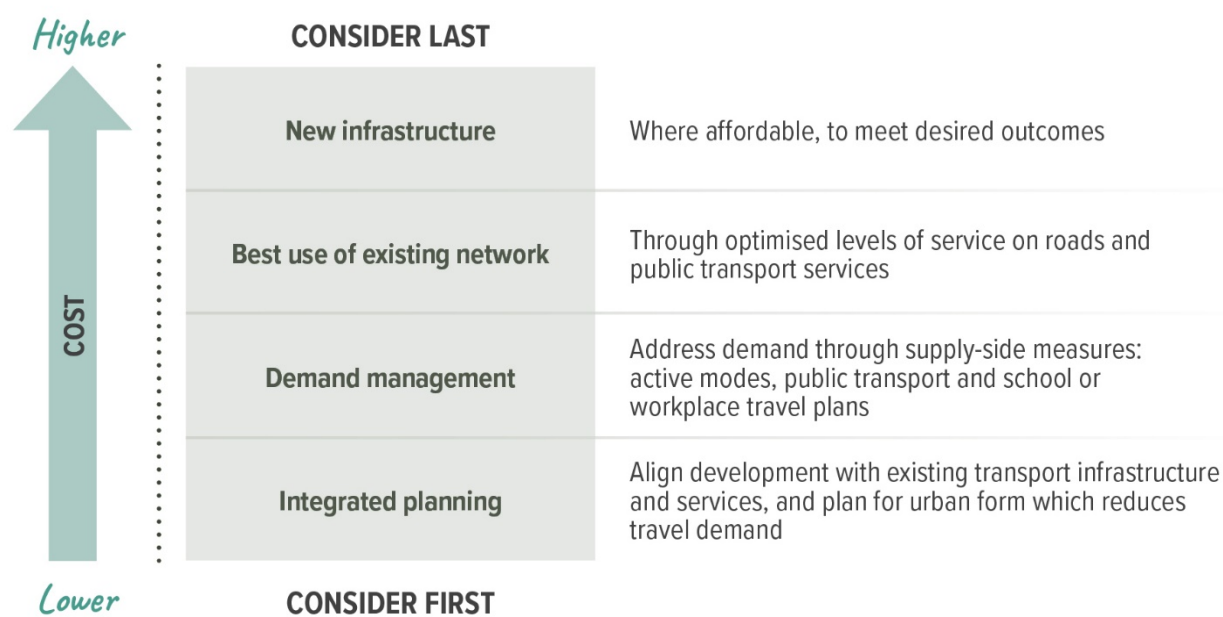


Figure 10-1: Waka Kotahi's Intervention Hierarchy⁵²

10.1 Long List Alternatives

Alternatives were assessed at a level sufficient to understand the benefits (and disbenefits) of the approach in general, rather than any specific interventions. However, certain assumptions were required for the purpose of long list assessment. The alternatives considered are summarised in Table 10-1. For more detail on the assumptions behind the long list assessment, refer to the Long List Options Assessment Report in Appendix F.

The long list inclusions were developed in conjunction with partners with the aim of addressing all the various dimensions of the problems in a targeted manner. For example, unreliable access as it affects essential

⁵² <https://www.nzta.govt.nz/assets/resources/The-Business-Case-Approach/PBC-intervention-hierarchy.pdf>

servicing, leads to an alternative with a 'city logistics' emphasis – recognising the likelihood that any ultimately recommended programme would need to draw on multiple types of intervention.

Table 10-1: Long List Alternatives

Options	Description
Integrated Planning	
Integrated planning	Tāmaki Makaurau has consistently applied integrated planning across the city, including with the Auckland Plan. The City Centre Masterplan is an example of such planning. The remaining opportunities that exist to address the problems, in addition to through planning through increased use of TODs.
Demand Management	
Demand Management	One potential means of supporting the required outcome is to reduce the amount of traffic that enters the city centre. Changing behaviour is potentially a key tool in achieving the outcomes sought. The approaches considered are cordon pricing as is being considered elsewhere ⁵³ and limiting access to some zones based on the emissions of the vehicle
Productivity	
Street Space Reallocation	This option is introduced as an “enhanced BAU” in that it continues the current practice of reallocating road space from cars to pedestrians, active modes, and public transport but does not fundamentally change private vehicle circulation patterns. The option tested included narrowing traffic lanes and widening pedestrian areas, while keeping all routes open for through traffic. The purpose of considering this option is to test the effectiveness of a strategy that does not significantly alter the circulation patterns of the city centre yet accelerates and enhances road space reallocation.
City Logistics	The city centre is a place of business, dwelling, education and recreation. It is also the location of a major port. All of these activities require effective servicing and logistics to function well. This alternative has been considered to test the effectiveness of improving the way that logistics are managed as a means of addressing the problems. It has also been considered to identify ideas that might enable improvements to logistics in support of any strategy selected.
Circulation Plan	The option involves changing the way that vehicular traffic and all other modes circulate within the city centre to enable greater allocation of space in key areas and streets for people, active modes and public transport. Typically, a circulation plan will divide a city into different precincts with limited interlinks for traffic.
Prioritising the Public Realm	This option tests the effectiveness of reallocating space to public realm that does not provide a movement function, other than allowing walking and potentially cycling through these spaces. It included Queen Street pedestrianisation, Te Hā Noa Victoria Street Linear Park, and linear parks on Hobson Street, Quay Street and Beach Road
Supply	

⁵³ <https://www.parliament.nz/en/get-involved/topics/all-current-topics/inquiry-looks-into-possible-congestion-pricing-in-auckland/>

Options	Description
Grade Separation: General Traffic	<p>This option attempts to address the problems identified by allowing reallocation of street space and replacing traffic capacity in a manner that removes it from the surface and as a result, conflict with pedestrians, urban realm and other uses.</p> <p>It tests the effectiveness of investing in a physical solution to road space reallocation that does not involve major trade-offs for traffic movement.</p>
Grade Separation: Public Transport	<p>This option attempts to address the problems identified by allowing reallocation of street space and replacing public transport capacity in a manner that removes it from the surface and as a result, conflict with pedestrians, urban realm and other uses. It should be noted that the light rail project may include some sub-surface running, but that is not considered here.</p>
Increased Public Transport Services	<p>This alternative seeks to test an approach to reducing car trips in the city centre and solving the problems by significantly improving the provision of alternative travel choices – in this case public transport.</p>

10.2 Long List Assessment Summary

Demand Management was expected to provide some benefits but would not substantially address the problems on its own. Without significant physical changes within the city centre there was minimal overall impact expected for public realm, spatial allocation and minor benefits for safety. However, all would benefit from a reduction in traffic volumes that may be created by demand management. Access was not expected to significantly change – other than the possibility for the network to become more efficient. There was the potential for additional service and delivery space reallocated from parking, however significant costs were expected for businesses to adapt to emissions standards and a cordon toll. Without significant physical changes in the city centre, the impact on te ao Māori is minor. From a feasibility and costs perspective, there would be possible political and stakeholder acceptance challenges but potential for new revenue generation. While as a standalone solution, demand management would have limited overall benefits towards the problem statements it would be critical to support any option that would require mode shift or a significant reduction in general traffic volumes.

Street Space Reallocation was assessed to have relatively minor changes compared to the do minimum with few adverse changes and some, limited benefits. The option was expected to reduce car access somewhat with slight improvements for active modes and public transport – albeit not on the major public transport corridors, as these are not included in the incremental approach. The decrease in car volumes was also expected to provide some safety benefits but again not on main corridors. From a te ao Māori perspective, this option was assessed to have relatively minor changes compared to Do-Min with few adverse changes and limited benefits. There were minimal changes expected for service, delivery and freight, and only slight improvements in public realm. This option was expected to be relatively feasible and low-cost.

City Logistics was also expected to have limited overall benefits toward the full range of the problem statements on its own. There would be minimal changes for access, public realm or safety but positive outcomes for service and delivery through the ability to significantly prioritise and improve logistics operations. The option would have a relatively low cost. Further development of this approach with logistics stakeholders is likely to be required to ensure essential servicing is facilitated – probably in conjunction with other alternatives.

The option considered included improved port access via The Strand and Grafton Gully, an access strategy for large vehicles and a strategy for servicing and deliveries (which could include clean vehicles and logistics hubs).

The **Circulation Plan** substantially addresses the problem statements. Public and active transport capacity and accessibility would significantly improve, with equivalent car trips becoming more circuitous. The enabled space reallocation would allow major improvements in public realm and reduce vehicle volumes. The reduction in through traffic would lead to a reduction in the exposure to harm in high conflict areas – such as Symonds Street, Queen Street and the downtown area. Some critical journey types including servicing and delivery movements and mobility access would be expected to become more challenging with more circuitous circulation patterns, which would need to be resolved. From a tea o Māori perspective, this option was considered most aligned with the City Centre Masterplan and the extensive benefits that it would deliver. This option was expected to have a relatively low cost with minimal construction, but feasibility challenges exist. It is expected that this alternative will result in increased traffic demand for the state highway network as it increases reliance on this route from cross-city centre traffic movements.

The **Public Realm Priority** option significantly addresses public realm goals with likely disbenefits to city centre access (for buses, general traffic and service and delivery). As a consequence of the new public spaces and pedestrian malls there are expected safety benefits from the reduction in exposure of vulnerable users. The creation of useable spaces for gathering and would provide benefits for te ao Māori. The option is expected to have relatively low or moderate cost, with some feasibility challenges depending on its extent.

Grade Separation: both grade separation options were expected to be high cost and disruptive options, with high complexity and limited feasibility.

- The public transport option would address the problems (by reducing vehicle volumes, creating space for active modes and providing high quality public transport access), but not to a degree to justify the costs, disruption and risks associated with its implementation. The options was assessed to have a negative effect on tea o Māori.
- The general traffic option was expected to induce higher vehicle volumes – and have negative outcomes against several project objectives, most notably safety and amenity. The enabled reuse of space for buses and active modes was not expected to offset these impacts. This option was also considered to risk creating induced traffic growth on the city centre periphery through promotion of certain routes for cross-city vehicle movement

Increased Public Transport Services would have limited overall benefits towards the problem statements but would be critical to support any option that would increase the difficulty of city centre access.

Long List MCA

Problem	Investment Objectives	Benefit	Measure / KPI	Street Space Reallocation	Traffic Circulation Plan	Grade Separation - General Traffic	Grade Separation - Public Transport	Demand Management	City Logistics	Public Realm	Increase PT Services
Score											
ACCESS	To enable the city centre to achieve its potential as a place of business and employment 20%	Changes in access to economic opportunities	Access capacity (people throughput & spatial coverage of cycle and PT infrastructure)	-1	2	2	3	1	0	-2	2
			Access to key economic destinations (City Centre)	0	2	2	3	1	0	-2	2
	Improve access for freight and service and delivery to better serve businesses, residents and events 20%	Impact on system reliability, network productivity and utilisation	Efficiency of deliveries/servicing (specialist assessment)	0	-1	0	2	-1	3	-1	-1
			Travel time reliability for freight, service and delivery	0	-1	0	0	1	3	-1	0
AMENITY	Improve the desirability of the city centre as a place for economic, cultural and social activities for Aucklanders 20%	Changes in access to social and economic opportunities and the liveability of places for Aucklanders	Townscape: Allocation of space for social and cultural activities	1	3	1	2	0	0	3	0
			Amenity value - built environment	1	3	0	0	0	0	3	-1
			Townscape: Vehicle volumes	1	3	-2	2	2	0	1	0
	Improve the experience for and growth in tourism and visitors 7%	Changes in access to social and economic opportunities and the liveability of places for tourists and visitors	Pedestrian delay & perception of access	1	3	0	1	0	0	3	0
Townscape: Allocation of space for social and cultural activities (AS ABOVE)			1	3	1	2	0	0	3	0	
SAFETY & HEALTH	Reduce harm to all users from crashes 23%	Impact on social cost of deaths and serious injuries and perceptions of safety and security	Crashes by severity	1	2	-2	0	1	1	1	-2
			Deaths & serious injuries and collective risk	1	2	-2	1	1	1	2	-1
			Access - perception	1	2	-2	3	1	1	2	-2
	Reduce the exposure of people to harmful noise and emissions 10%	Impact of air emissions, noise and vibration on health	Ambient air quality	1	2	-2	1	3	0	1	0
			Noise level	1	2	-2	0	2	0	1	0
Criteria		Measure		Score							
FEASIBILITY	Potential Achievability	Assessment of feasibility		0	-1	-3	-3	-1	0	-1	0
	Potential Affordability	Assessment of likely capital costs		-1	-2	-3	-3	0	-1	-1	-1
		Assessment of likely OPEX		0	0	-3	-3	1	-1	-1	-3
OPPORTUNITIES & IMPACTS	Climate Change Mitigation	Assessment of mode shift and traffic reduction, VKT, land use		1	2	-3	2	2	0	1	1
	Impacts on Te Ao Maori	Assessment of impact		0	3	-2	2	2	0	2	1
	Property Impacts	Assessment of likely scale of property impact		0	-1	-3	-3	0	0	-1	0

Figure 10-2: Long list MCA summary

10.3 Long List Assessment Outcomes

A Circulation Plan preferred

The long list assessment resulted in the **Circulation Plan** option being found to address the problems in a way that makes it the core of the preferred way forward. However, on its own the option does not address all issues, and elements of other options warrant inclusion in a combined package of interventions.

The **Circulation Plan** has risks and potential impacts that will require mitigation, including:

- A likely overall reduction in city centre traffic capacity
- Changes to the way servicing, deliveries and ride hail/taxis can operate
- Difficulties for mobility impaired people accessing the city centre
- Potential for greater demand for public transport, and active modes.

Some additional benefit and mitigation of disbenefits may be available through elements of other long list alternatives. Therefore, elements of most of the long list alternatives in the long list were brought into the short list for assessment in support of the core Traffic Circulation Plan.

Street Space Reallocation inclusions:

- **Including** principles of narrowing traffic lanes and widening pedestrian areas, where appropriate in the context of a circulation plan.
- **Not including** narrowing Mayoral Drive as this is part of the traffic circulation route assumed.
- **Not including** keeping all routes open for through traffic as that principle would conflict with the Circulation Plan.

Grade separation inclusions:

- **No inclusions** from either grade separation option considered in the long list.

Demand Management inclusions:

- **Supporting interventions:**
 - Mobility/disability access plans
 - Ride hail and taxi optimisation
 - Parking policies for pricing and supply
 - Cordon tolls (assuming The Congestion Question outcomes)
 - Zero Emission area for Waihorotiu Queen Street Valley
 - Motorway and City Centre Network Optimisation Plan

City Logistics inclusions:

- **Supporting interventions:**
 - Improved port access via The Strand and Grafton Gully
 - Access strategy for large vehicles

- Strategy for servicing and deliveries (could include methods noted in the long list option including clean vehicles and logistics hubs)

Public Realm inclusions:

- **Including** Queen Street pedestrianisation (to the extent it is compatible with the transit mall approach)
- **Including** Te Hā Noa Victoria Street Linear Park concept
- **Not including** linear parks on Hobson Street, Quay Street and Beach Road as the impact on access capacity would not align with the Circulation Plan.

Increased Public Transport inclusions:

- **Including** Improved priority measures throughout.
- **Supporting interventions:**
 - Public transport capacity improvements
 - New termini to support additional and changed routes (as part of the City Centre Bus Plan)

The Circulation Plan was progressed as the core of the preferred way forward, with aspects of four of the eight options (Street Space Reallocation, Demand Management, City Logistics and Increased Public Transport Services) to be integrated into the shortlist or to be progressed as supporting interventions.

The supporting interventions were progressed from elements of the long list to address particular aspects of the problems or to mitigate unwanted side effects of the Circulation Plan. These supporting interventions, were re-formed and further developed into more defined interventions (eg mobility access plans, ride hail and taxi optimisation, enabling servicing deliveries and freight etc) and included as “supporting interventions” in the short list assessment.

No further investigation were made into grade separations as the expected costs, risks and disruption were likely to significantly outweigh any transport benefits and, in the case of the traffic grade separation alternative, a likely negative benefit outcome. The long list process and outcomes is summarised in Figure 10-3.

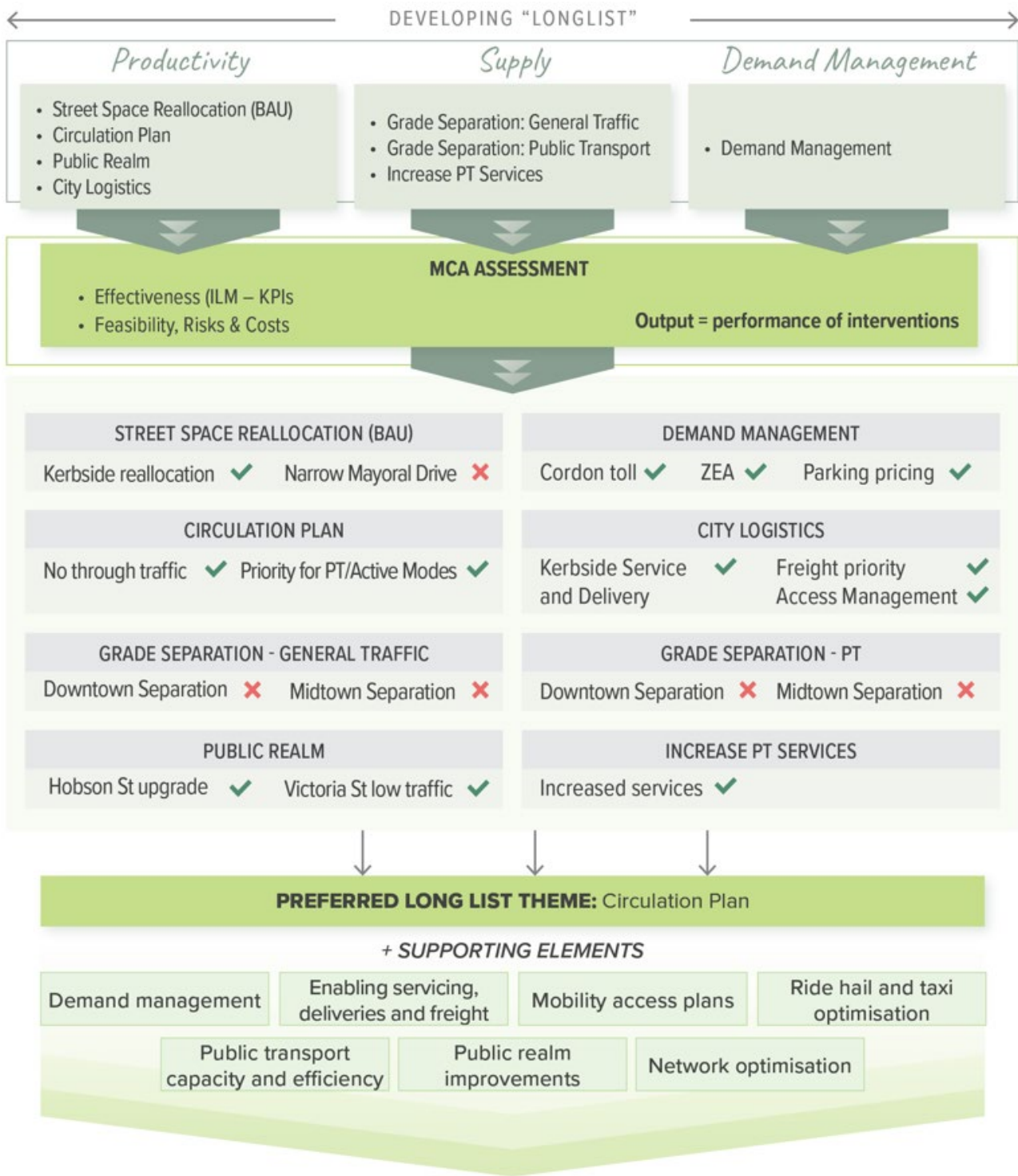


Figure 10-3: Summary of long list process

10.4 What Could a Circulation Plan Mean?

Description of a circulation plan

The City Centre Masterplan provides some guidance on what a circulation plan could look like for the city centre, and it is this concept that has been considered in the long list and selected as the preferred base alternative for the purposes of this business case. The circulation plan concept involves changing the way that movement moves within the city centre with a focus on removing through traffic and space for vehicle traffic, enabling a greater allocation of space for people on foot, cycle, micromobility and public transport. It also aligns with related priorities and movement plans for the city centre for cycling, pedestrians and public transport networks by creating the priority and space for them to be implemented and operate most effectively.

The fundamental principles of this concept are:

- Non-destination 'through traffic' would be removed from most of the city centre routes and instead be required to use the motorway to go around the city centre or use the Mayoral Drive route.
- Removing private vehicles from Queen Street, enabling the street to become a transit or pedestrian mall.
- Traffic circulation changes and restricting east – west private vehicle traffic across the Waihorotiu Queen Street Valley to create a pedestrian-priority zone including the City Centre Masterplan laneway network and forming the Mayoral C40 declaration ZEA.
- Dividing the city centre into a series of low-traffic neighbourhood zones that cars can access and egress but cannot travel between, but which are permeable by walking, cycling, and public transport.
- Public transport access prioritised by introducing traffic circulation changes to main arterials to enable public transport only sections or public transport malls on Queen Street, Customs Street, Wellesley Street, Symonds Street, Karangahape Road, and Customs Street. These sections would also allow for active modes and servicing, loading and mobility access as required.
- Private vehicles entering city centre zones from the city's edge, would leave from the same zone. Where this not possible, and for some intra-city trips, Mayoral Drive is expected to serve as an 'inner ring road'.

Figure 10-4 provides a visualisation of the potential changes to city centre vehicle access under a circulation plan, including key vehicle through routes, public transport, and pedestrian routes through the city centre. The map also outlines the low traffic neighbourhoods, or "traffic cells" that a circulation plan would enable. These cells would have traffic access to and from them but have limited movement between them. Note that public transport, cycle and pedestrian routes outlined in Figure 3-8 are enabled.

Components of the circulation plan include turning restrictions or requirements to remove or limit access for private vehicles to some streets; and the conversion of sections of streets to public transport-only in order to provide access for public transport but restrict private vehicle access between low-traffic neighbourhoods.



Figure 10-4: Circulation Plan concept showing traffic routes

The traffic circulation plan would mean that some vehicle trips to the city centre and within the city centre would become more circuitous and take longer – or be suppressed.

The circulation plan creates clear priorities for streets and areas within the city centre by creating distinct networks for different modes. Buses, people walking and using mobility devices, and people riding bicycles or micro mobility, would be able to pass freely between zones.



The street network would be designed to reduce conflict between modes, with specific modal access matched with the urban context. The circulation plan aims to reallocate space to create safe, effective access across the city centre for everyone, prioritising the most effective and efficient modes.

This traffic circulation and street network strategy unlocks city centre space that can be reallocated for other uses, including transport, active modes, public space and events. When combined with well-executed supporting or enabling strategies, the circulation plan would also accommodate the trips needed to support the city centre's growth, including deliveries, rubbish collection, construction, building access and emergency services.

These circulation changes will redirect traffic away from the centre of the city and increase pressure on the surrounding networks and motorway system. Supporting network projects (local or motorway) are likely to be required as enablers of the cells.

11 Short List Assessment

11.1 Approach to the Short List

In developing the short list for this business case, it was agreed via the Project Working Group and Project Control Group to adopt a fit-for-purpose approach that will provide an effective outcome for this particular business case.

The short list includes some eleven interventions all of which are geographical sub-options or components of a circulation plan, with additional consideration of supporting interventions. In this regard, the method adopted here provides greater effort and depth of understanding of the outcomes and risks than a traditional approach comparing a small number of circulation plan variants would have provided.

The interventions are identified as they represent the changes that may be required to give effects to a circulation plan and a generally in line with the Transformational Moves outlined in the City Centre Masterplan.

Each of the eleven interventions is rated through the MCA process in the normal manner so there is an opportunity to determine for each intervention:

- Its effectiveness in helping achieve the project objectives
- Its impact on tea o Māori
- Its feasibility and risk profile
- Its potential cost outcomes.

This process identified:

- The relative priority of the interventions
- Any interventions that are ineffective
- Potential disbenefits
- Any interventions that are risky and the nature of these risks
- The potential programme costs.

This process connecting the long list and the short list is illustrated in Figure 10-3. Elements of most long list alternatives have been included in the short list to ensure all aspects of the problems are addressed or unwanted consequences mitigated. The exception to this is the two grade separation alternatives which were not considered further.

No traffic modelling was done as part of this PBC.

Earlier concepts of A4E were modelled as part of CCMP approval processes. The modelling showed significant rerouted traffic being directed to the motorway network, in particular SH16, Grafton Gully boulevard.

11.1.1 A version of a circulation plan considered

Reasoning behind the selected version

A version of a circulation plan for the whole city centre has been assumed. This has been based on the known strategies and projects for the city centre and as a result represent the “most likely” circulation plan form and function based on knowledge today. These strategies include:

- The Access for Everyone concept outlined in the City Centre Masterplan
- Other key moves specified in the City Centre Masterplan
- Planned cycle networks
- The Centre Bus Plan and planned major public transport routes
- The opening of the City Rail Link stations
- Future Connect.

As outlined in sections 11 and 12, there was little to be gained in assessing multiple “options” for circulation plan variants as the final shape of the circulation plan is likely to be far more influenced by the need to integrate with related projects and programmes – either known or that may emerge.

Recognising uncertainty

The complexity of the city centre’s movement network and its interaction with numerous private and public sector developments, along with evolving travel behaviour changes means that there are likely to be a range of variants of a circulation plan that are possible over time. There is a range of possible changes from the simple to the complex and a range of organisations involved, including the private sector and a number of public agencies. Options for staging and sequencing of interventions were considered and are summarised in Section 12.1.3.

A circulation plan is not a “project” that is implemented and operated as a single entity. It is a collection of interventions on a range of scales, examples of which have already been implemented in the city centre or are planned.

The city centre is an area with a large number of projects on different scales. Projects like Auckland Light Rail and a northern cycle connection are currently being investigated and lead to a high level of uncertainty. The city centre is also home to many private developments of significant scale. As a result, this business case is required to deal with much greater uncertainty than most, making it important to consider the impact of this uncertainty on the options development and assessment and wider business case processes.

11.1.2 Selection of interventions for the short list

Referring to the summary diagram (Figure 10-3) this section outlines the elements in the short list (refer Appendix G).

Main interventions

The short list geographical sub-options of the circulation plan (interventions) are discussed below. These interventions have been identified by the project team in conjunction with the Project Working Group and relevant stakeholders. Most of the interventions considered have been previously identified in other strategies and workstreams and through the agencies responsible for the outcomes sought .

They have been grouped based on geographic proximity and practical interconnectedness. Some judgement has been required in terms of grouping of the potential sub-options.

- For example, interventions across the area described as ‘downtown east’ are grouped for the purpose of the short list evaluation.
- In another case, Quay Street, Hobson Street, and Nelson Street have been evaluated as a group based on the close connection between reduction of through traffic across Quay Street, traffic capacity on Hobson Street, and traffic capacity on Nelson Street.



The short-listed sub-options are conceptual options for the purpose of assessment and approximate costings. Consultation and investigation will be required to develop the concepts further.



Figure 11-1: Short list main interventions

Potential programme components have been grouped into 11 'main interventions,' as follows:

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Queen Street transit mall 2. 'Downtown east' circulation changes 3. Britomart circulation changes 4. 'Downtown west' circulation changes 5. Victoria Street circulation changes 6. Customs Street transit mall 7. Symonds Street, Anzac Avenue, and Learning Quarter circulation changes | <ol style="list-style-type: none"> 8. Karangahape Road – Pitt Street station area circulation changes 9. Quay Street, Hobson Street, and Nelson Street circulation changes 10. Wynyard Quarter – Viaduct circulation changes 11. Grafton Gully Boulevard on The Strand |
|---|--|

Supporting Interventions:

These were identified to support the traffic circulation changes, pedestrian realm improvements and safety improvements identified as part of the wider programme. These interventions are expected to maximise the benefits of the main interventions and mitigate the potential effects and disbenefits of the interventions. These interventions have not been assessed in the same format as the main interventions.

Where the supporting interventions form part of already existing workstreams or where work has already commenced, this has been identified. In other cases, supporting interventions may require the development of new workstreams to support the main interventions, and the overall goals.

These supplementary interventions included:

- Management of service and delivery vehicles
- Management of taxi, ride-hail services
- Mobility impaired access management
- Parking management
- Demand management, including parking policies, congestion charging, wayfinding and information, levies and charges and general behaviour change techniques and approaches
- Supply of alternative transport modes, including public transport – in general terms, noting the City Centre Bus Plan is assumed in the do minimum
- Support for land use change, particularly transit-oriented developments
- Access management – including strategies for freight
- Legal mechanisms to support outcomes, including for a Low/Zero Emissions Area
- Optimisation of the local and motorway networks through a Network Operating Plan and subsequent interventions.

11.1.3 Assessment purpose:

The intent of the short list is to establish the priority of each sub-option in terms of effectiveness against the KPIs and problems and identify any interventions that are clearly ineffective or high-risk.

11.2 Assessment of Main Interventions:

Each set of interventions has been evaluated based on expected performance toward the objectives. Evaluations have been conducted using the same KPIs as for the long list, as well as the technical/feasibility assessment criteria. The assessment outcomes are covered in the following section: for further detail on the assessment method followed, refer to the Short List Options Assessment Report in Appendix G and the Te Ao Māori Assessment Tech Note in Appendix L

The MCA shows the assessment which is discussed below.

11.2.1 Queen Street Transit Mall



This intervention would see the restriction of private traffic travelling along Queen Street, with priority given to public transport and active modes as well as enhanced urban realm. Service and delivery vehicles could be allowed access to Queen Street during certain periods of the day. These components require further investigation as alternate intervention combinations are possible.

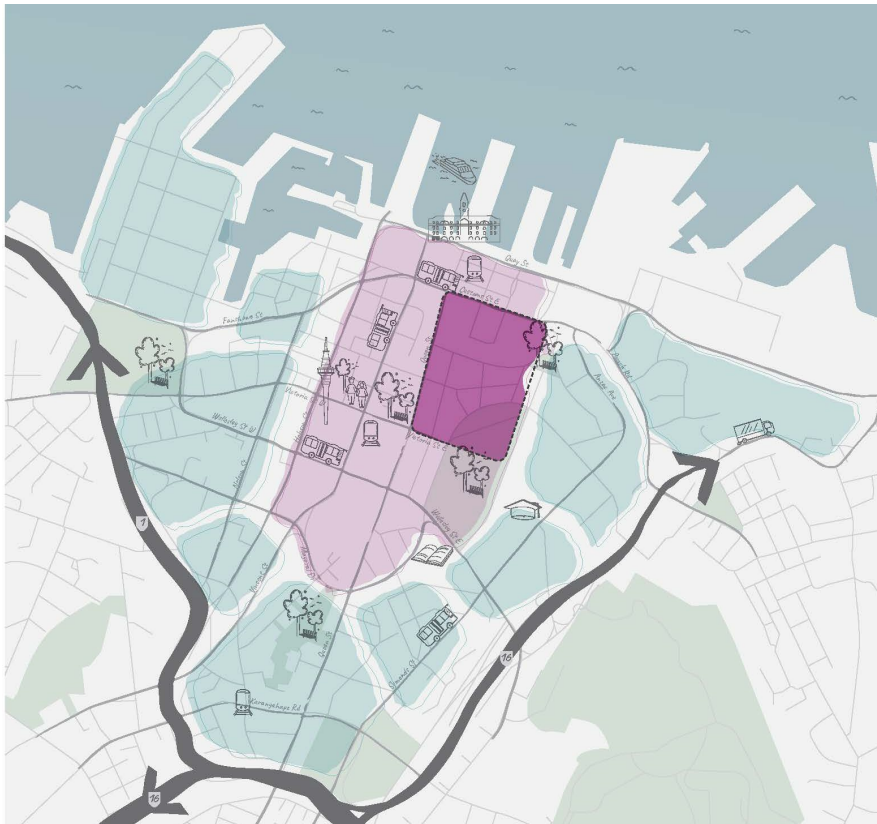
Access: While the intervention would remove the capacity for private vehicle access along most of Queen Street, the associated improvement in travel times for pedestrians, which dominate the movement demand, cycling and public transport, mean this intervention still scores positively for access capacity and catchment as it would be expected to improve the movement effectiveness of the street. Service and delivery vehicles are expected to be negatively affected by the intervention, but this could be mitigated through the use of delivery windows (ie early morning or late-night delivery windows, with controlled access to the area).

Amenity: This intervention has the potential to enable significantly more space on Queen Street for urban realm and public space improvements.

Safety & Health: Overall, this intervention would also lead to a significant improvement in safety due to the improved pedestrian facilities and reduction in traffic volumes - 70% of deaths and serious injuries on Queen Street occurred between Customs Street and Mayoral Drive, and the removal of general vehicle access in this area would result in a significant reduction in incidents.

Feasibility: In terms of feasibility and costs, Queen Street scored the worst of the short-listed options, although this is comparative and is not unlike work recently undertaken successfully in the city centre. This score is due to the area/extent of the corridor, complexities with utilities, traffic management and the sensitivity of the corridor itself. As the main spine of the city centre, changes on Queen Street will have the largest impact compared to changes on any other corridor. Although the improvements do not require property acquisition, it is a politically, economically and culturally sensitive area, where works could have both a positive and a negative impact on local businesses. This intervention could result in opposition from local business associations, property owners and operators. However, the changes on Queen Street are critical in meeting climate change commitments.

11.2.2 'Downtown East' Circulation Changes



The 'Downtown east' area is roughly bounded by Queen Street, Customs Street, Victoria Street, and Princes Street (as pictured in above). The interventions are intended to create a traffic circulation system that enables a more cohesive space and improved amenity for pedestrians whilst ensuring that drivers wishing to use off-street parking and service/delivery can maintain access.

Without intervention and traffic circulation changes in this area, it is expected that traffic restrictions in the surrounding areas, for example the

current Queen Street Project will result in additional vehicle traffic using streets that are currently designated as shared space, or that may be intended to have lower traffic environments. The Waihorotiu / Queen Street Valley vision outlined in the City Centre Masterplan includes an "expanded laneway network" that is comprised of many of the streets within this area.⁵⁴ This area is also expected to be included in a possible Low Emissions Zone or Zero Emissions Area.

Access: The intervention in downtown east performs well on all criteria related to people movement, except for effects on the freight network (neutral impact). Accessibility for vehicle through traffic is expected to decrease as a result of the interventions, but access to all parking buildings can be maintained. In compensation, accessibility for pedestrians and cyclists is expected to improve.

Amenity: Closures at Queen Street will provide opportunities for increased public space and lower vehicle volumes are expected to create an opportunity for improved amenity. This is also expected to enable easier movement for pedestrians (lowering delay and improving the perception of access).

Safety & Health: Overall, this intervention will lead to an improvement in safety & health outcomes due to the improved pedestrian facilities and reduction in traffic volumes.

Feasibility: This option was assessed as one of the most feasible and affordable of the shortlisted interventions due to the smaller scale construction work. The intervention largely involves the conversion of sections of corridors into pedestrian malls. With examples of these spaces already within the city centre it is not expected to be a politically challenging intervention. The trade-off is that there is minimal expected impact towards climate change mitigation (through mode shift and reduction in traffic and vehicle kilometres travelled).

⁵⁴ <https://aucklandccmp.co.nz/explore-the-city-centre-masterplan-area/waihorotiu-queen-street-valley/>

11.2.3 Britomart Circulation Changes



The intervention proposed for the Britomart area aim to facilitate access for pick-up / drop-off areas to properties throughout the area, while creating traffic-free spaces for managed pedestrian malls and improving cycling connections.

Streets in the area are included in the City Centre Masterplan's envisioned laneway circuit.

Circulation changes may also be required within the Britomart area if other short list interventions are implemented (on Quay Street and/or Customs Street), to avoid directing general traffic into this area.

The intervention appears worthy of further investigation but has smaller potential benefits than other interventions. This reflects the area's limited importance to the overall transport network, and the existing high-quality public realm environment.

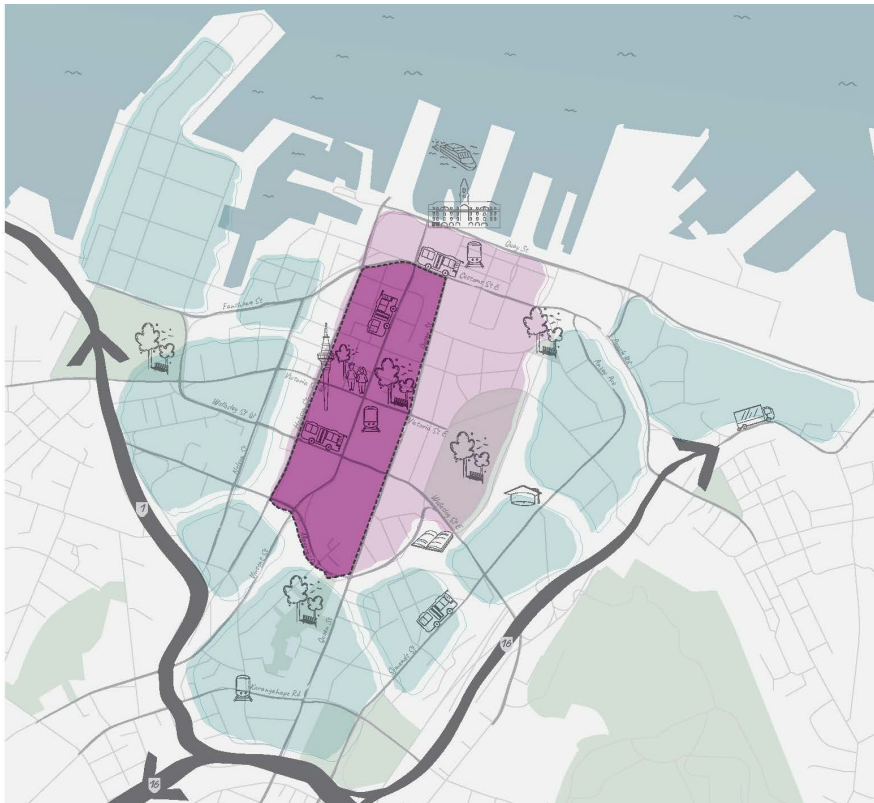
Access: The intervention in Britomart is not expected to have a significant impact on access capacity or travel times, with small possible disbenefits for private vehicles expected to be matched with small journey improvements for pedestrians and cyclists. Service and delivery journeys would be expected to improve slightly, with some additional loading zones and fewer general traffic vehicles with which service and delivery vehicles would compete for space. No significant impacts on freight are expected.

Amenity: Public realm improvements are expected but compared to other interventions the benefits do not appear to be as significant relative to the do minimum scenario. This largely reflects the high existing pedestrian amenity.

Safety & Health: The removal of north-south traffic movements through Britomart East will create a low traffic environment, and several pedestrian-only areas. With this reduction in traffic volumes, the option will significantly improve health and safety outcomes due to the removal of conflict in an area with high pedestrian volumes.

Feasibility: This option was assessed as being one of the more feasible and affordable of the shortlisted interventions, largely due to the smaller scale construction work required. However, this option was assessed as having significant impacts on property access. It will be important to consider how to maintain access for taxi, ride hail, service, and delivery vehicles to the area if interventions occur on Quay Street and Customs Street. The intervention was expected to have a minor positive impact towards climate change mitigation (through mode shift and reduction in traffic and vehicle kilometres travelled).

11.2.4 'Downtown West' Circulation Changes



The 'downtown west' area is roughly bounded by Queen Street, Mayoral Drive, Hobson Street, and Fanshawe Street. For assessment, this option assumed a traffic circulation pattern that would shift traffic away from low traffic streets and would prevent Albert Street from being a general traffic 'through' corridor. These changes would enable pedestrian improvements and repurposed bus lanes on Albert Street would allow for new loading zones, pick-up and drop-off spaces and widened footpaths. Public transport priority would be maintained through the restriction of north-south private vehicle traffic along the length of Albert Street.

This set of interventions has been included for several reasons:

- To increase the space for pedestrians and improve amenity and safety, particularly with the opening of Aotea Station and the large numbers of pedestrians it will generate.
- Parts of this intervention are included in the City Centre Masterplan's vision of a circuit of pedestrian-prioritised laneways in the Queen Street Valley.
- Albert Street is a key north-south public transport spine and this intervention seeks to maintain priority for buses on this route and improve the amenity for those waiting for services.
- To support the possible interventions on Queen Street by providing service & delivery/loading spaces for local businesses.

Access: The interventions performed slightly negatively with regard to access due to the reduction in access for private vehicles and the removal of bus lanes. An expanded footpath on Albert Street near the station entrances is expected to improve access for pedestrians. These changes are also expected to reduce travel time reliability for service, delivery & freight vehicles, but with increased provision of kerbside space, is expected to positively impact the efficiency of service & delivery.

Amenity: This interventions scored positively on criteria related to amenity. The restriction of private vehicle traffic at Federal Street and Wolfe Street may enable increased public amenity, while a widened footpath on Albert Street will improve amenity and the ease of pedestrian movements.

Safety & Health: An overall improvement to health & safety outcomes is expected due to the restriction of general traffic movements.

Feasibility: This involves new pedestrian malls and footpath widening on Albert Street, resulting in moderate scores for feasibility and costs. Although the improvements do not require property acquisition, they are situated in a sensitive location, where additional restrictions could be seen as having a negative impact on local businesses already affected by long-term City Rail Link construction. This intervention could result in effects on local businesses, property owners and operators due to the impact on

loading areas and general traffic access. This option was one of the most impactful options for climate change mitigation.

11.2.5 Victoria Street Circulation Changes



This intervention involves restricting general vehicle traffic across Victoria Street. This intervention has been included for several reasons:

- To improve pedestrian movement, amenity, and safety, particularly with the forthcoming opening of Aotea Station, which will lead to a significant increase in pedestrians in the area.

- To support complementary pedestrian-priority on Queen Street and to help deliver the objectives of the Te Hā Noa Victoria Street Linear Park.
- It has been investigated in tandem with other possible restrictions of general traffic across Queen Street. Should other access restrictions be implemented without intervention on Victoria Street, it is possible that Victoria Street would attract a significant portion of east-west traffic and experience frequent congestion.
- Victoria Street between Hobson Street and Albert Park is also included in the City Centre Masterplan's "zero emissions area enabled by the transport and street changes under Access for Everyone".

The intervention performs relatively well against most criteria and appears to warrant further investigation.

Access: Victoria Street is not expected to serve significant levels of vehicle traffic in the do minimum scenario (which includes the assumption of the Te Hā Noa Victoria Street Linear Park between Federal Street and Kitchener Street) but is expected to serve a high number of pedestrians. As a result, the access disbenefit to general vehicles is expected to be slightly outweighed by the expected benefits to pedestrians. Service, delivery, and freight vehicles are expected to experience some disbenefit from the intervention, as they would be required to use a different route to travel east-west across the city centre. This could be mitigated by providing access at certain times of day.

Amenity: The intervention is expected to create significant benefits for public realm. Additional space is expected to support the function of the linear park as a social and cultural place.

Safety & Health: 20% of deaths and serious injuries on Victoria Street involving pedestrians and vulnerable users between 2001 and 2020, occurred between Elliot Street and High Street. The intervention will lead to an overall improvement in health and safety outcomes with the removal of through traffic in this area.

Feasibility: The intervention involves upgrade to a relatively small section of Victoria Street and minor additional works on top of the existing planned linear park. It is not considered complex from a constructability point of view. However, Victoria Street changes may experience high resistance to implementation.

11.2.6 Customs Street Transit Mall



The intervention proposed on Customs Street, Fanshawe Street, and Beach Road seek to improve the public realm, facilitate bus network improvements, improve the cycle way network, and facilitate urban

regeneration of Quay Park. The intervention features a proposed public transport only section on Customs Street (between Albert Street and Commerce Street) and new and upgraded cycle lanes on Fanshawe Street and Beach Road. This option is aimed at supporting the ‘downtown crossover’⁵⁵. Cycle lanes on Fanshawe Street would also support riders from a potential northern cycle connection.

Access: The intervention performed the most positively of the short-listed options for accessibility and access capacity. Under the do minimum scenario, new bus stops are expected along Customs Street on either side of Queen Street. Without the intervention, pedestrians waiting at bus stops may cause delays for pedestrians walking along the corridor. Accessibility would thus be expected to improve for the very high volumes of pedestrians compared to the do minimum. With a public transport only section on Customs Street, access would improve for buses. Journeys would also improve for cyclists, particularly on Fanshawe Street, for which no alternate cycle route exists. Travel times would be expected to increase for private vehicles under the intervention, though private vehicles are expected to account for significantly fewer people on the corridor than pedestrians, cyclists, and public transport riders.

The intervention performs negatively for servicing, delivery, and freight as some service, delivery, and freight vehicles would be expected to have longer journeys to cross the city centre. These effects would require mitigation.

Amenity: The intervention performs very favourably against amenity related criteria. Improvements to the public realm would be particularly significant due to the very high pedestrian volumes expected under the do minimum and intervention scenarios. Additional footpath space on Customs Street should lead to significant benefits for pedestrians or those waiting for buses. With reduced vehicle volumes, additional street trees, seating, or bus shelters would be more feasible. Additional space for

⁵⁵ <https://at.govt.nz/media/1985159/bus-reference-case-2020-report.pdf>



pedestrians would complement the public realm and ability for social and cultural activities on Te Komititanga.

Safety & Health: The removal of general traffic access on Customs Street between Albert Street and Commerce Street would result in significant safety and health benefits. The option removes conflict between pedestrians and general traffic in an area where 75% of deaths and serious injuries between 2001 and 2020 involved pedestrians.

Feasibility: While the improvements do not require property acquisition, they are situated in a sensitive location in the city centre, where works could have a negative impact on local businesses. This intervention could result in opposition from local business associations, property owners and operators. The intervention entails conversion of sections of corridors into public transport only, targeted footpath widenings, and sections of cycle lanes. It will require an advanced traffic management plan due to the impact on general traffic during construction.

11.2.7 Symonds Street, Anzac Avenue, and Learning Quarter Circulation Changes



The intervention aims to improve bus journey travel times and reliability, create a new safe cycling connection, and improve the public realm through the city's Learning Quarter. The intervention includes a public transport only section on Symonds Street between Wakefield Street and Waterloo Quadrant, protected cycle lanes on Symonds Street and Anzac Avenue, widened footpaths on sections of Symonds Street and traffic restrictions to reduce vehicle volumes on Mount Street and St Paul Street.

The intervention has been investigated based on Symonds Street's role as a core north-south public transport route and high pedestrian area

(university campuses), to support the Queen Street Valley and to enable the City Centre Masterplan outcomes in the Learning Quarter.

The corridor is also being investigated through the Connected Communities programme.

Access: It is expected that overall access capacity and accessibility will increase through additional priority for buses, though these improvements will be less significant given existing bus priority in the do minimum. Accessibility for cycling is expected to dramatically improve with separated cycle lanes provided along the length of the intervention area. Private vehicle travel times may increase to some destinations, though all destinations will remain accessible from other routes. Service, delivery, and freight vehicles may face longer journey times, though some additional kerbside space would be provided for service and delivery vehicles.

Amenity: It is expected that the intervention would create additional space for social and cultural activities through traffic restrictions on Mount Street and St Paul Street. Vehicle volumes would decrease along parts of the corridor, and a narrowed carriageway and widened footpath would allow for improved pedestrian amenity, while improving ease of walking along or crossing the corridor.

Safety & Health: This intervention will lead to a general improvement in safety & health due to removal of general traffic from sections of Symonds Street and Princess Street, and the creation of a low traffic environment in St Paul Street and Mount Street. This removes the biggest cause of incidents in this area (30% of deaths and serious injuries involve pedestrians and vulnerable users). Improved cycling facilities along Symonds Street further removes conflict between vehicles, including buses, and cyclists in a high-use area.

Feasibility: The intervention assumes the conversion of sections of corridors into transit malls, pedestrian malls, and new sections of cycle lanes. Although not complex, it would require an advanced traffic management plan during construction. While the improvements do not require property acquisition, they are in a sensitive location, where works

could have a negative impact on local businesses, property owners and operators from the impact on on-street parking, loading areas and general traffic access.

11.2.8 Karangahape Road – Pitt Street Station Area Circulation Changes



The intervention is assumed to include pedestrian priority and low traffic areas around station entries and separated cycle lanes on Pitt Street and Greys Avenue, as well as a restricted access section on Karangahape Road, which would allow access for public transport and service & delivery vehicles only. Additional kerbside space on Karangahape Road and on Canada Street would allow the prioritisation for service and delivery vehicles.

This intervention has been included given that Karangahape Road is a high-volume pedestrian environment and serves two important public transport routes. In addition, the opening of Karangahape Road station in 2024, will lead to an increase in the number of pedestrians within the area.

Access: The intervention scores slightly positively for access capacity and accessibility. Bus accessibility would be expected to improve, particularly with the new Karangahape Road public transport only section. Bus routes that turn from Karangahape Road to Pitt Street would also be expected to improve. Cycling access would improve with new cycling infrastructure on Pitt Street and Greys Avenue.

The introduction of new loading zones on Karangahape Road in the section restricted for general traffic led to a maximum score for the criterion related to service & delivery. Allowing access for service & delivery vehicles while restricting access for general traffic may require legal changes by AT. The intervention would have a slightly negative impact on the freight network, as it may limit east-west route options for freight vehicles. This impact could be mitigated should such vehicles be allowed to pass through the general traffic restriction area.

Amenity: The intervention performs well on criteria related to townscape and amenity. Pedestrian improvements would be expected outside the Mercury Lane access to the Karangahape Road Station, where significant pedestrian volumes are expected and on Cross Street, which would have lower traffic volumes.

Safety & Health: The intervention would lead to an improvement in safety & health due to removal of general traffic from sections of Karangahape Road (in an area with high pedestrian volumes), and the creation of low traffic environment in Mercury Lane and Cross Street. Over 60% of all deaths and serious injuries recorded in the area between 2001 and 2020 involved pedestrians. Improved cycling facilities along Karangahape Road further removes conflict between vehicles, including buses, and cyclists in a high-use area.

Feasibility: This option was assessed as being one of the most feasible and affordable of the shortlisted interventions. This is due to the smaller scale construction work required. It is expected to have a minor positive impact towards climate change mitigation (through mode shift and reduction in traffic and vehicle kilometres travelled).

11.2.9 Quay Street, Hobson Street, and Nelson Street Circulation Changes



The set of interventions aims to improve the public realm and safety for pedestrians and residents and is intended to improve access to the waterfront. The option assumes a significant public realm upgrade on

Hobson Street and Nelson Street, with two lanes to remain for general traffic, as well as Quay Street circulation changes (with no general traffic permitted to travel end-to-end across Quay Street).

These interventions reflect the City Centre Masterplan visions for:

- The removal of the Hobson Street flyover (2012 and 2020 City Centre Masterplan)
- Low traffic neighbourhoods on each side of Queen Street with limited general traffic across the city centre
- City Centre Masterplan's zero emissions area (includes a portion of Quay Street).

This set of interventions presents a clear trade-off between access capacity and the public realm and safety.

Access: The sub-options received the minimum score related to all criteria related to access.

There is a heavy reliance on Nelson Street and Hobson Street for vehicular access to the city centre and these streets are considered in AT's network planning to be traffic priority streets. The intervention would significantly reduce capacity for private vehicles on each street.

Service, delivery, and freight vehicles would experience disbenefits from the reduction in capacity on each street, in addition to the expected impacts on the wider traffic network. Disbenefits for service and delivery vehicles would be expected to be partially offset by benefits on Quay Street and Lower Hobson Street.

It is expected that a reduction in traffic capacity on Hobson Street would have fewer disbenefits for access capacity should the downtown carpark be repurposed. It is expected that new service and delivery space would be provided on Lower Hobson Street in part of the area that is currently occupied by the flyover.



Accessibility and travel times for pedestrians may improve on Quay Street with easier crossing of the corridor, and on Nelson Street and Hobson Street with wider footpaths.

Amenity: The set of interventions received the maximum score for each criterion related to the public realm. It would entail a significant improvement in space for social and cultural activity. Such space is almost non-existent on Hobson Street and Nelson Street in the do minimum, but would improve meaningfully under the intervention, with opportunities for public or café-style seating. Lower vehicle volumes on Quay Street would be expected to support the public realm on adjacent public spaces (including Te Wānanga and Te Komititanga). A new public space for social and cultural activities would be expected to partially replace the Hobson Street flyover.

Safety & Health: The removal of the flyover would significantly reduce traffic on Quay Street due to removal of through traffic, while the improved amenity on Quay Street, Hobson Street and Nelson Street would improve pedestrian facilities and increase the perception of safety. Although the improvements do not require property acquisition, they are situated in a sensitive location, where additional restrictions could be seen as having a negative impact on local businesses, already affected by long-term City Rail Link construction. This intervention could result in opposition from local business associations, property owners and operators.

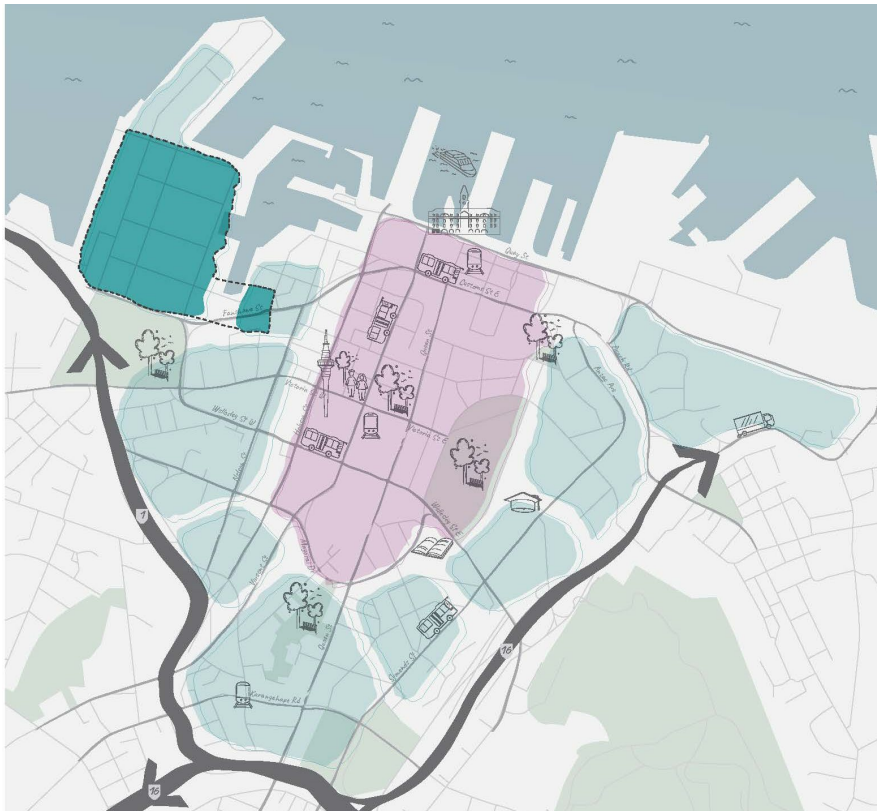
The intervention would be expected to dramatically reduce vehicle volumes, substantially increase the size and quality of footpath on Hobson Street and Nelson Street, add additional planters and trees, and make each street easier to cross. The benefits would be accrued by passers-by, patrons, and the substantial residential population in the area.

Feasibility: This intervention was scored as one of the most expensive options of the shortlisted options, alongside the Queen Street intervention. While this intervention covered a smaller area than the Queen Street changes, due to the proposed flyover removal, the estimated costs were around \$100m. This option was seen as fairly feasible but as a 'high-profile'

area was expected to have significant property access impacts for loading operations, kerbside loading and potential rideshare.

In terms of climate change mitigation, options which involved converting existing corridors into transit or pedestrian malls scored the highest, as these result in significant reductions in general vehicle volumes. The Quay Street option was among the most effective interventions, due to its relatively high ADT. The reduction in vehicle kilometres travelled is estimated to be 10,000km per day.

11.2.10 Wynyard Quarter – Viaduct Circulation Changes



The intervention in Wynyard Quarter aims to improve public transport journey times and experience, the pedestrian environment, cycling connections between Wynyard Quarter and the Viaduct, and enable a low traffic environment. For the purposes of this assessment, it assumes a public transport only access on a portion of Daldy Street, and restrictions on through traffic between Wynyard Quarter and Viaduct Harbour.

The intervention is intended to support the City Centre Masterplan's Harbour Edge Stitch and enable improved pedestrian access to the waterfront in the Viaduct area. It supports improved cycling connections to a future northern cycle connection as well as the interventions proposed

on Fanshawe Street. It is related to the ongoing improvement of public transport in the Wynyard Quarter with an increase of buses on Daldy Street following the “downtown crossover” (where buses from Tāmaki Drive will cross Queen Street and terminate in Wynyard Quarter).

This option has smaller potential benefits than most interventions but would still be worthy of further investigation. This reflects the area's limited importance to the overall transport network, and the existing high-quality public realm environment.

Access: The intervention performed neutrally or slightly negatively related to access capacity and accessible catchment. Bus journeys may improve slightly on Daldy Avenue without mixing with private vehicles, though few vehicles use the street currently. Restricting vehicle access on Viaduct Harbour Avenue will likely increase vehicle volumes on Fanshawe Street, which may slightly delay some vehicle and bus trips. Pedestrians are not expected to be space-constrained in Wynyard Quarter, so are not expected to benefit from reduced footway congestion.

Amenity: The amenity of the area is expected to improve, though not as significantly as under most interventions. Vehicle volumes would be reduced, particularly on Viaduct Harbour Avenue. It is not expected that Daldy Street or other streets in Wynyard Quarter would experience significant public realm upgrades, largely due to the high level of pedestrian amenity at present.

Safety & Health: The intervention would lead to a minor improvement in health and safety outcomes due to the removal of general traffic.

Feasibility: This option was one of the most feasible and affordable options. The intervention will have very low impact on Daldy Street due to nature of restrictions and upgrades involved. Upgrading Viaduct Harbour Ave (maximum intervention assumed) will have bigger impact due to required property access that will need to be maintained (office and parking at Sofitel, AT, KPMG and other large office parks).

11.2.11 Grafton Gully Boulevard on The Strand



Interventions on The Strand are aimed at improving the pedestrian environment (including through enabling adjacent redevelopment), adding safe cycle infrastructure, increasing capacity for general traffic (which can help enable other Access for Everyone interventions), and adding freight priority, in particular for port access. The intervention reflects the Grafton Gully Boulevard Concept identified in the City Centre Masterplan.

The sub-option has been investigated as part of this assessment based on alignment with the objectives and based on the intervention's potential as a significant enabler of other interventions. Preliminary investigations have found that reducing east-west general traffic access across the city centre

may create more pressure on The Strand for private vehicle movement. The Grafton Gully Boulevard intervention is one mechanism to increase vehicle capacity while achieving the objectives of increasing transport accessibility, improving the public realm, and improving safety.

Access: Access for all vehicles would improve significantly through the additional traffic lanes, separation of freight vehicles, and the separation of through lanes (with fewer turning movements) and local traffic. Service, delivery and freight vehicles are also expected to benefit significantly from the access improvements as well as the additional kerbside space. Freight vehicles would benefit significantly from the increased priority. Access for cycling would increase significantly with separated cycle lanes.

Amenity: The intervention is expected to significantly improve public amenity. This includes through easier crossings, improved footpath quality, more active adjacent developments, and additional street trees and greenery. While vehicle volumes are not expected to reduce, pedestrians would be more buffered from fast moving general traffic with slower, local traffic lanes and medians between the footpath and centre lanes.

Safety & Health: The intervention is likely to lead to a minor improvement in safety due to the separation of traffic. New separated cycling lanes are provided - which would reduce conflict between cyclists and vehicles. It is not expected to have a significant impact on health outcomes (as a low exposure area).

Feasibility: The Grafton Gully Boulevard is expected to be one of the more complex and expensive options, of the shortlist interventions. It is located within the SH16 corridor, with very high traffic volumes, which will impact complexity and timeframes. However, unlike all other shortlisted interventions, it is not expected to impact property access as it would maintain access to local properties and side roads.

11.3 Short List Assessment Summary

The MCA assessment (below) indicated that there is value in progressing each of the circulation plan interventions considered. All options proved, in principle to meet project objectives to some degree and no critical issues were identified in the assessments of feasibility and affordability. In terms of outcomes, the assessment is summarised below.

Access and Amenity: Nearly all shortlisted options improve amenity. For some options there is a trade-off between access and amenity and some options are more effective than others.

Safety and Health: All interventions lead to overall improvement in safety due to a reduction in general traffic volumes and speeds and a resultant decrease in the conflict between general traffic and vulnerable users in their zones, leading to an expected reduction in deaths and serious injuries. This is particularly key for:

- Queen Street, where 70% of the deaths and serious injuries occurred between Customs Street and Mayoral Drive
- Victoria Street, where 20% of deaths and serious injuries involving pedestrians and vulnerable users occurred between Elliot Street and High Street
- Customs Street, where general vehicles were involved in 75% of the deaths and serious injuries involving pedestrians.

Several of these areas were identified in the Strategic Case as having clusters of incidents, and areas of higher risk – with significant exposure of people to general traffic.

All options also lead to overall improvement in exposure to health risks (noise and air quality) for the same reasons as safety risks - reduced general vehicle traffic exposure.

Feasibility: From a technical perspective, the feasibility risks of the shortlisted options are relatively low. The main risk is property impacts – specifically the response of property owners to the impact. While there are no expected direct impacts on properties, there may be changes or limitation to the way properties are accessed. Some interventions come with higher political risks, particularly changes in the city centre core (Queen Street, Customs Street, Victoria Street) or with larger access trade-offs (Quay Street, Hobson Street, and Nelson Street circulation changes). On-going stakeholder engagement will be critical to manage these risks. With the exception of Grafton Gully boulevard and Downtown East circulation changes all options were expected to have positive climate impacts (with a reduction in traffic volumes and resultant CO2 emissions). While Downtown East circulation changes wasn't expected to impact traffic volumes significantly, Grafton Gully was expected to lead to a potential increase in traffic. All options were expected to have positive outcomes for te ao Māori, as they enabled the Māori outcomes defined the CCMP and enabled a reduction in deaths and serious injuries, improved access for Māori business and/or improved amenity and created new public spaces for cultural expression (to varying degrees per option).

Opportunities and impacts: Short listed options generally scored positively in terms of te ao Māori for a range of reasons including creating space for places to celebrate Māori culture and history, safety and business performance. As noted in Appendix L, the assessment is inherent in many of the KPIs and also reflected in its own criteria. Property impacts were generally negative. These are not typically “direct” impacts with properties being impacted, instead being effects on the current vehicular access enjoyed by many properties. Climate change impacts were generally positive, due to the mode shift likely to be generated.



Short List MCA

Problem	Investment Objectives	Benefit	Measure / KPI	Queen Street transit only section	Victoria Street circulation changes	'Downtown east' circulation changes	Customs Street transit-only section	Britomart circulation changes	Quay Street, Hobson Street and Nelson Street circulation changes	'Downtown west' circulation changes	Symonds Street, Anzac Ave and Learning Quarter circulation changes	Karangahape Road - Pitt Street station area circulation changes	Wynyard Quarter - Viaduct circulation changes	Grafton Gully Boulevard on the strand
Score														
ACCESS	To enable the city centre to achieve its potential as a place of business and employment 20%	Changes in access to economic opportunities	Access capacity (people throughput & spatial coverage of cycle and PT infrastructure)	2	1	1	3	0	-3	-1	2	1	0	3
			Access to key economic destinations (City Centre)	2	1	1	3	0	-3	-1	2	1	-1	3
	Improve access for freight and service and delivery to better serve businesses, residents and events 20%	Impact on system reliability, network productivity and utilisation	Efficiency of deliveries/servicing (specialist assessment)	-1	-1	1	-1	1	-1	3	-1	3	0	3
			Travel time reliability for freight, service and delivery	0	-1	0	-2	0	-3	-1	-1	-1	0	3
AMENITY	Improve the desirability of the city centre as a place for economic, cultural and social activities for Aucklanders 20%	Changes in access to social and economic opportunities and the liveability of places for Aucklanders	Townscape: Allocation of space for social and cultural activities	1	2	2	1	1	3	2	2	1	0	1
			Amenity value - built environment	3	2	3	3	1	3	2	2	2	1	3
			Townscape: Vehicle volumes	3	3	2	3	1	3	2	2	2	2	2
	Improve the experience for and growth in tourism and visitors 7%	Changes in access to social and economic opportunities and the liveability of places for tourists and visitors	Pedestrian delay & perception of access	3	3	2	3	1	3	3	1	2	0	3
Townscape: Allocation of space for social and cultural activities (AS ABOVE)			3	2	2	1	1	3	2	2	1	0	0	
SAFETY & HEALTH	Reduce harm to all users from crashes 23%	Impact on social cost of deaths and serious injuries and perceptions of safety and security	Crashes by severity	3	3	2	3	3	2	2	2	2	1	1
			Deaths & serious injuries and collective risk	3	3	1	3	3	2	2	2	3	1	1
			Access - perception	3	2	1	3	3	2	2	2	3	1	1
	Reduce the exposure of people to harmful noise and emissions 10%	Impact of air emissions, noise and vibration on health	Ambient air quality	2	2	2	3	1	1	1	2	2	1	0
Noise level			2	2	2	3	1	1	1	2	2	1	0	
Criteria		Measure		Score										
FEASIBILITY	Potential Achievability	Assessment of feasibility		-3	-1	-1	-2	-1	-1	-1	-1	-1	-1	-2
	Potential Affordability	Assessment of likely capital costs		-3	-2	-1	-1	-1	-3	-2	-2	-1	-1	-2
		Assessment of likely OPEX		-3	-2	-1	-1	-1	-1	-2	-3	-1	-2	-3
OPPORTUNITIES & IMPACTS	Climate Change Mitigation	Assessment of mode shift and traffic reduction, VKT, land use		3	3	0	3	1	3	2	3	1	1	-2
	Impacts on Te Ao Maori	Assessment of impact		3	3	2	2	1	1	1	2	2	0	3
	Property Impacts	Assessment of likely scale of property impact		-3	-3	-1	-3	-3	-3	-3	-3	-2	-2	0

Figure 11-2: Short List MCA Summary

11.4 Short List Assessment Outcomes

All short-listed interventions have been included in the preferred programme.

The assessments indicate that the risk and feasibility profile is not of concern at a technical level, as the projects are generally likely to be similar to works that have been developed in the city centre already. The risks lie primarily in the impacts on property owners and businesses of both the disruption during the construction which has been an issue well-publicised in the city centre in recent years and long-term changes in access for traffic and servicing. There are risks with these interventions that have been identified in this assessment. Mitigations are likely to be possible through the sequencing of implementation and the implementation of the supporting interventions, discussed separately. The risks and weaknesses in the interventions in this assessment will inform scoping of next steps to resolve the issues and address the disbenefits.

As a result, the likely way forward will result from:

- The assessment profile (effectiveness) from the MCA as a form of priority/importance
- The ability to mitigate the risks, effects and effectiveness deficiencies through supporting mechanisms. This includes a combination of supporting interventions discussed in Section 11.5
- Considering the dependencies and connections between the interventions

The preferred programme is explained in Section 12.

For the purpose of staging the recommended programme several of the short list options have been separated into phases owing to the differing dependencies and risks associated with the intervention components.

“Quay Street, Hobson Street, and Nelson Street circulation changes” has been separated into three phases:

- Nelson Street redevelopment
- Hobson Street redevelopment
- Quay Street circulation changes & Lower Hobson Street flyover removal.

“Downtown West” has been separated into:

- Albert Street circulation changes
- Wolfe Street circulation changes
- Federal Street circulation changes.

Northern cycle connection (separated cycle facilities on Fanshawe Street) has been included separately to the “Customs Street transit mall” interventions.



11.5 Assessment of Supporting Interventions

Table 11-1 summarises the assessment of the supporting interventions, detailed in Appendix G.

Table 11-1: Assessment of supporting interventions

Intervention	Assessment
<p>Management of service and delivery vehicles</p> <p>Management of taxi, ride-hail services</p> <p>Mobility impaired access management</p> <p>Parking management</p> <p>Emergency access</p>	<p>The main interventions investigated involve significant changes to how kerbside space is allocated and managed across the city centre. Access for Everyone main circulation plan interventions are also expected to impact journeys for private vehicles across the city centre, including making some intra-city trips more circuitous.</p> <p>Impacts are expected to service and delivery vehicles, taxi and ride-hail vehicles, private vehicles picking-up and dropping-off passengers and individuals accessing on-street parking, including mobility carparks.</p> <p>Strategies for each of these uses are expected to be required early in the programme in order to ensure the needs of these users are sufficiently met. This may include all components as part of a wider kerbside strategy.</p> <p>The impact of these interventions will be ensuring that concerns and potential negative impacts to the groups listed are taken into account in the planning of A4E. This will mean strategies are put in place to ensure these groups are provided with suitable access to the city centre.</p>
<p>Demand Management</p>	<p>Demand Management measures would support the main interventions by reducing vehicle kilometres travelled into the city centre, particularly during peak periods. It should be designed to allow access for the most important trips, including those for emergency and delivery services, people with no other access mode, and access for people who rely on vehicle journeys for personal mobility.</p> <p>Demand management interventions may include:</p> <ul style="list-style-type: none"> ■ Cordon Pricing (as being investigated by the Ministry of Transport under “The Congestion Question” project) ■ Parking policies ■ Levies and charges ■ General behaviour change techniques, including information. ■ Travel Demand Management (TDM). <p>The impact of these interventions would be to help enable a reduction in private vehicles accessing the city centre, the size of this impact would be dependent on the level of TDM intervention used.</p>



Intervention	Assessment
Supply of Alternatives	<p>The main circulation plan interventions are expected to enable (and may require) mode shift for trips entering the city centre. It is possible, however, that such a mode shift could be constrained by limited capacity on Auckland’s public transport network. Preliminary investigations (as part of the 2020 City Centre Masterplan) by Auckland Transport have identified that an additional 11,000 trips to the city centre would need to be accommodated by other modes above and beyond the planned public transport capacity by the end of the decade⁵⁶.</p> <p>This intervention is expected to be part of wider public transport strategy, including strategies such as the City Centre Bus Plan. This could include extending the peak period for bus services to provide additional capacity. There are a range of other major improvements in public transport access to the city centre proposed, but not yet defined in the next two decades, including:</p> <ul style="list-style-type: none"> ■ Light Rail to the isthmus ■ Rapid transit to the north west ■ The Waitemātā Harbour Connections rapid transit ■ Rail network enhancements <p>The exact impact of this supporting intervention workstream cannot be clarified as it is highly dependent on wider public transport strategies for the city, but the desired impact would be that alternative modes could accommodate the 11,000 trips outlined above.</p>
Land use change	<p>It is expected that the programme will support opportunities for land use regeneration by improving the public realm near possible development sites. It is recommended that redevelopment opportunities are monitored and investigated when appropriate by relevant partners, including Auckland Council Development Programme Office, Panuku, and Kāinga Ora. Several interventions are expected to influence access to private properties. Implementing access changes may require regulatory changes to unitary plan provisions.</p>
Access management	<p>Access management relates to the enablement of access to destinations within zones where main interventions would be implemented and includes large vehicle access strategy, wayfinding and integration with relevant navigation technology platforms.</p> <p>This would also include strategies for freight and commercial users.</p> <p>The impact of this supporting intervention would be that, despite the changes outlined, necessary access would be maintained. This would ensure the city’s main functions can continue and, through the use of navigation technology, route changes into/out of the city centre will be well communicated to drivers.</p>
Legal mechanisms	<p>Work to support Access for Everyone is recommended to include further investigation into the likely mechanisms by which an ZEA or LEZ would function, including what staging would be appropriate, the technology used to monitor and enforce the zone, and other supporting measures.</p> <p>This supporting intervention is expected to be delivered within Council visions for Auckland City Centre, including the City Centre Masterplan.</p>

⁵⁶ <https://www.aucklandcouncil.govt.nz/transport-and-infrastructure/transport/active-transport/access-for-everyone-a4e/managing-traffic-and-road-use-in-the-city-centre/>, Accessed 27 September 2021

Intervention	Assessment
Network Optimisation	<p>The interventions investigated will also impact and be impacted by possible changes to the motorway network, though specific interventions on the motorway network have not been investigated here.</p> <p>Interventions may be operational changes (signal timings and priority) or physical (lane configurations, signage, signals and changes to ramps) and may be connected to related improvements, including Connected Communities and the Auckland Motorway Operating Strategy.</p> <p>Interventions that restrict east-west movements for general traffic across the city centre are expected to require the motorway network to perform additional functions and support the city centre outcomes, particularly if multiple such interventions are implemented in combination. Interventions on Hobson Street and Nelson Street may impact usage of motorway on- and off-ramps. Changes to the operation and form of the motorway network may thus make certain interventions more feasible while minimising potential disbenefits to service and delivery, freight, and private vehicles, and to some buses.</p> <p>It is recommended that this programme delivery interacts closely with Waka Kotahi's Network Optimisation Programme to ensure motorway upgrades support the objectives. This alignment will be investigated further during the implementation planning stage of the programme.</p>

11.6 Inclusion as “Enabling” Strategies

Initially developed as “supporting interventions”, following assessment of the overall programme and acknowledging the potential disbenefits of the circulation plan, these interventions have been brought into the recommended programme as ‘**Enabling Interventions**’. This is because, when considering the potential disbenefits of changes in traffic circulation and specific needs of users of the city centre, many are likely to be required **ahead** of significant changes to and reprioritisation of the city centre’s circulation system to address the needs of specific users that rely on access by vehicle or for goods and services, including:

- City centre residents
- Businesses – servicing, loading
- Refuse removal operators
- Mobility impaired
- Emergency services
- Taxis and ride share operators.

Other enabling interventions will be required to both mitigate potential effects of the circulation changes and optimise the potential benefits, including:

- Influencing land use changes and access
- Access management and wayfinding
- Network optimisation and prioritisation, including development of a Network Operating Plan for both the state highway and local networks. This may result in additional physical improvements as well as operational outcomes.

12 Preferred Programme

12.1 Development of the Preferred Programme

The preferred programme was formed by:

- Confirming the physical and operational interventions assessed in the short list and the resulting outcomes
- Considering dependencies and confirming sequencing
- Considering risks and mitigations to ensure the programme is effective and deliverable

These steps and outcomes are described in the following sections.

12.1.1 Physical and Operational Changes

The principal conclusion of the short list assessment is that all the assessed circulation plan sub options have value to varying levels in the preferred programme.

As outlined in the Access for Everyone concept in the City Centre Masterplan and in the preferred option from the long list stage of this business case, the preferred outcome is a circulation plan that prioritises modes of travel and space. In terms of physical changes to give effect to this, the preferred programme is a suite of changes to street space allocation, priority and circulation patterns. This is summarised in Figure 12-1.

The interventions are as detailed in Section 11.2. These changes, combined with other changes assumed in the do-minimum, including a transit mall on Wellesley Street and Te Hā Noa Victoria Street Linear Park, will create a series of low traffic neighbourhoods and enable the creation of a zero emissions area (ZEA) in the Waihorotiu Queen Street valley while providing for the planned cycle and public transport routes and enhancing pedestrian movement across the city centre. The realisation of the zero emissions area does rely on the separate workstream currently progressing to electrify Auckland’s bus fleet.

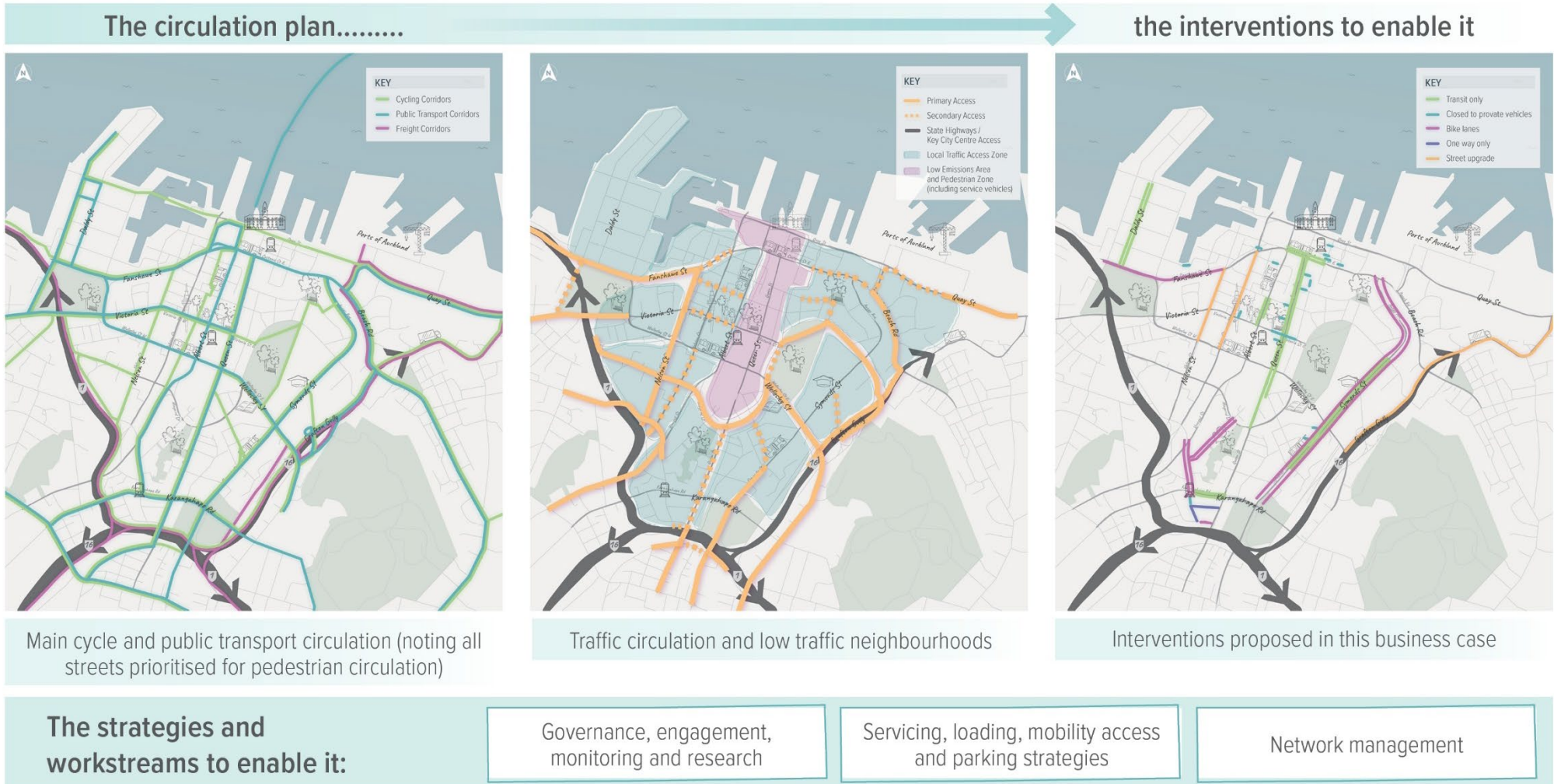


Figure 12-1: Preferred programme physical and operational changes

12.1.2 Programme Implementation Assessment

In the city centre, the degree of complexity and the requirement to integrate projects and outcomes is crucial to optimising the programme, its benefits and mitigating disbenefits through strong planning of the implementation sequence and early implementation of enabling works.

In developing the preferred programme sequencing and timing, options exist in the sequencing of interventions. Figure 12-2 illustrates the process undertaken to assess sequencing options and optimise the preferred programme.

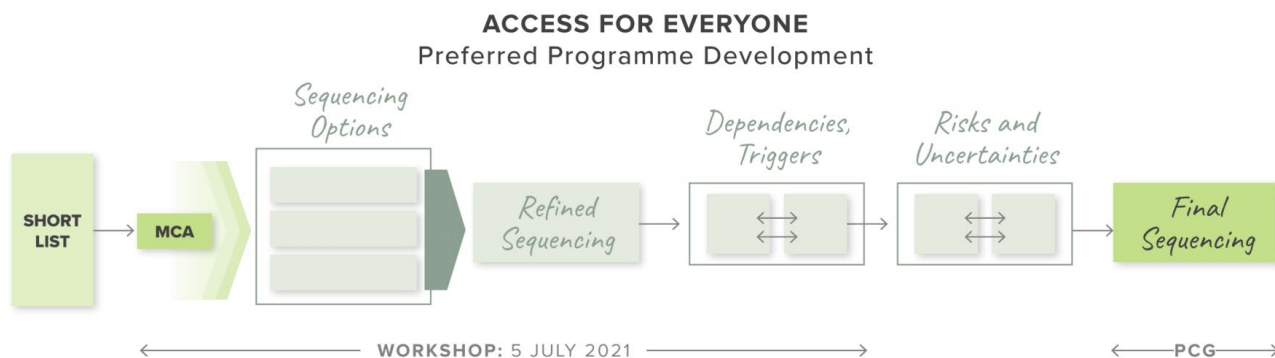


Figure 12-2: Preferred programme option development

The confirmation of the preferred programme, conflicts, synergies and dependencies was considered at a hui involving core city centre stakeholders on 5 July 2021. This workshop identified:

- Interrelationships between interventions identified
- Dependencies between the circulation plan interventions and other changes in the city centre
- Triggers or barriers that may exist
- Risks and opportunities.

The process outlined in the following sections summarises the mahi carried out ahead of this hui, the hui outcomes and mahi carried out to refine the outcomes and develop the recommended programme.

There are many complex interactions with projects and outcomes, including:

- Multiple agencies including Auckland Council, Auckland Transport and Waka Kotahi
- Multiple projects in progress, some of them major, including City Rail Link
- Multiple projects in planning phase of a range of scales
- Projects known, but timing and the physical works are uncertain, for example light rail
- Highly interested and engaged stakeholders who take an active role in developments in the city centre

While these exist in most locales, the scale and intensity of the interrelationships and levels of engagement in the city centre of Tāmaki Makaurau is probably the greatest in Aotearoa. The environment is geographically relatively small, yet the scale of movement, economic activity, projects, and number of stakeholders is large.

The key risks facing the programme (Refer to Appendix E) are significant due to this complexity and have been evident in recent, relevant experienced in the Queen Street Trial project and related projects in the Britomart area. These are in relation to:

- Stakeholder acceptance
- Landowner impacts
- Cumulative impacts on traffic and movement
- Fatigue associated with ongoing construction and consequential impacts

- Project integration and co-ordination
- Fatigue from consultation on multiple projects.

Given the findings of the short list assessment, the selection of the preferred programme required testing various options and sensitivities, resulting in a preferred, optimised approach.

This is outlined below.

12.1.3 Sequencing Options

Three sequencing options were considered, each responding to the specific issues and drivers and containing a different sequencing of investment priorities (Figure 12-3).

- **Benefits-driven.** Prioritised according to the assessed effectiveness against the project objectives and KPIs
- **Risk-driven.** Prioritising the simplest, least expensive and most achievable sub-options/interventions.
- **Alignment-driven.** Prioritising the interventions that align with related programmes and initiatives.

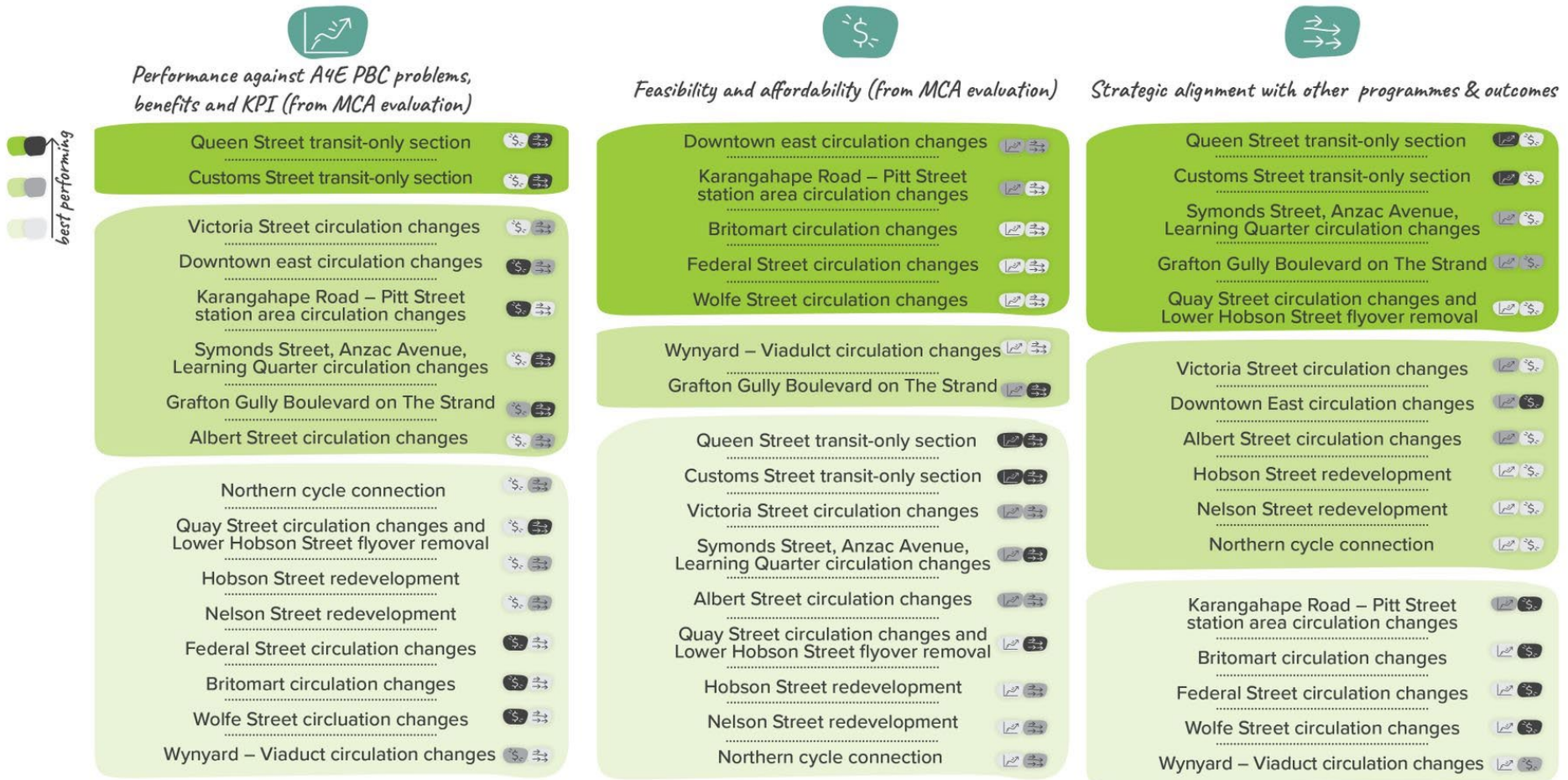


Figure 12-3: Sequencing options

Each of these sequencing options was assessed to have a range of risks and opportunities.

Benefits driven

The advantage of the benefits driven approach is that it delivers the greatest benefits in the programme earliest resulting in the greatest positive effects of the programme to be realised quickly. This approach has risks however in that:

- It prioritises high cost interventions with greater risk which may not result in easy deliverability
- There may be poor timing and physical connections with planned and current investments and changes causing greater costs, more disruption and loss of support
- A risk that construction fatigue is worsened through further early change in areas of the city that have undergone considerable disruption recently.

Risk driven

The advantage of the risk driven approach is that it prioritises the simpler, less risky interventions which will enable gains to be made without incurring major costs and to an extent, delaying or avoiding the key risks identified for the programme. This could have the benefit of building confidence in the programme, forming relationships with stakeholders on less confrontational workstreams and allowing some benefits of the programme to be realised and demonstrated to the public.

The approach has some drawbacks however, in that:

- It prioritises less beneficial outcomes, delaying the major potential benefits of the programme
- There may be poor timing and physical connections with planned and current investments causing greater costs, more disruption and loss of support.

Alignment driven

In the alignment driven option, interventions have been ordered by their strategic alignment with other programmes and projects already underway or committed for the city centre. The benefits of ordering interventions in this way is that the implementation programme could be expected to deliver a high degree of alignment with projects already underway. This is likely to reduce disruption, improve stakeholder support (both of which are key risks identified) and leverage the benefits of existing and planned projects.

The approach has some drawbacks however, in that:

- To some extent, it may prioritise less beneficial interventions, delaying the potential benefits of the full programme
- It prioritises some high cost interventions.



Prioritising main interventions

Combined, these three categories of evaluation provide an approximate prioritisation for main interventions that can form the initial basis for sequencing.



During the hui with key stakeholders⁵⁷ the three programme and sequencing options were considered and developed into an optimised programme based on a balanced assessment of the priority in the three sequencing options (Figure 12-4).

While the optimised programme balanced the priorities of the three options identified above, the reality of implementation in the city centre is that the drivers are likely to be related to other planned and committed works combined with the need to manage the effects of ongoing disruption to the city centre. Having this prioritised sequence as the “desirable” programme is important however, as a baseline order of priority.

Figure 12-4: Optimised prioritisation of interventions

⁵⁷ Sequencing and Dependencies Workshop 5 Jul 2021

12.1.4 Building in Dependencies and Integration

Using the detailed knowledge of project managers and stakeholders who, collectively, are responsible for coordination of a wide range of work within the city centre, dependencies between interventions were identified as well as relationships to other workstreams, risks and opportunities (Figure 12-5).

Sequencing main interventions

However, sequencing also needs to account for relevant related projects that will or may occur.

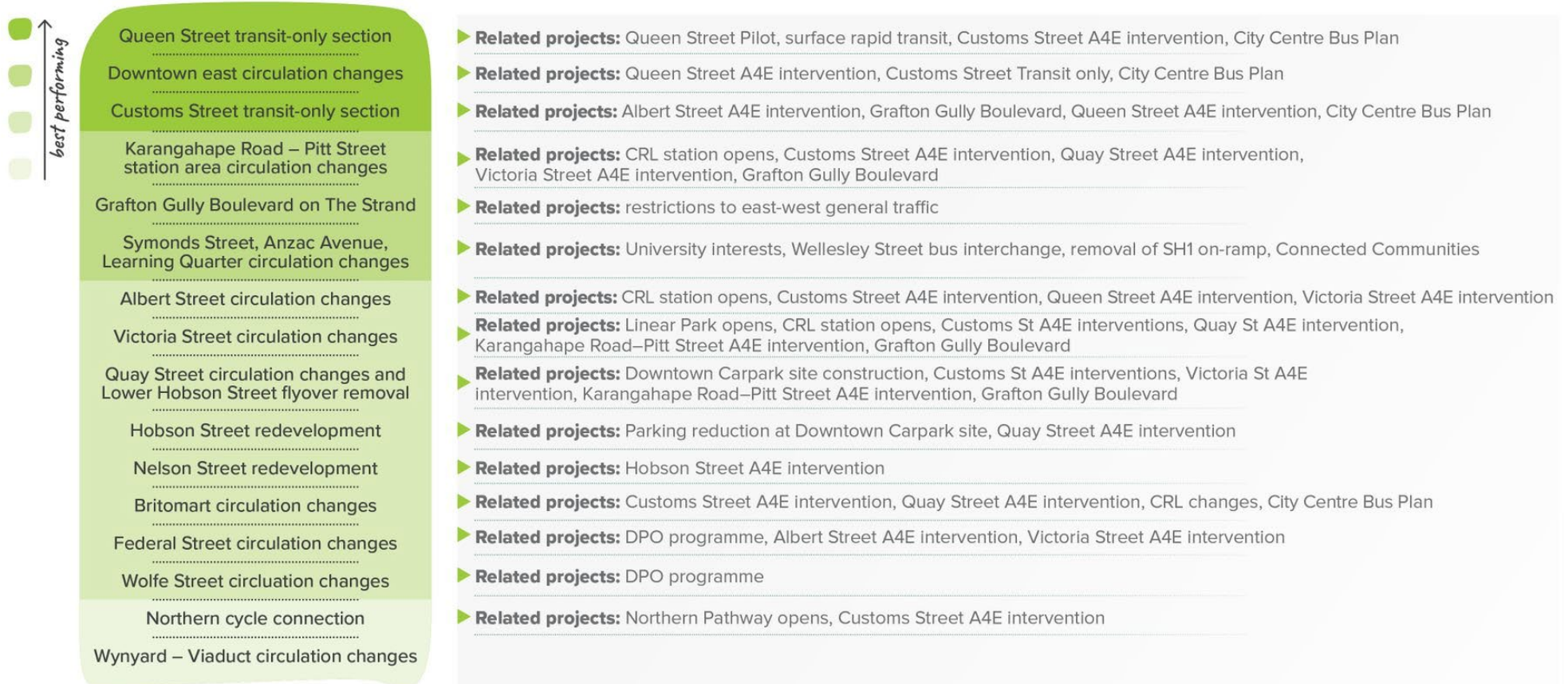


Figure 12-5: Prioritised interventions with related projects

Some of these dependencies are well-defined or committed, while others are less defined. In optimising the programme, leveraging dependencies that are highly certain meant a logical re-ordering of the programme to prioritise effort to these interventions. This does not mean that the interventions elevated are more important, but that in terms of timing, they should be commenced first. This effectively means prioritising outcomes that are directly impacted by or enabled by the construction of the City Rail Link stations and Te Hā Noa Victoria Street Linear Park projects. While not as urgent or certain, alignment with a proposed northern cycle connection is also identified (Figure 12-6).

Sequencing main interventions

Some related projects are certain or very likely to occur in at given time.

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031+
Queen Street transit-only section	▶ Related projects: Queen Street Pilot, surface rapid transit, Customs Street A4E intervention										
Downtown east circulation changes	▶ Related projects: Queen Street A4E intervention										
Customs Street transit-only section	▶ Related projects: Albert Street A4E intervention, Grafton Gully Boulevard, Queen Street A4E intervention										
Karangahape Road – Pitt Street station area circulation changes					CRL station opens	Related projects: CRL station opens, Customs Street A4E intervention, Quay Street A4E intervention, Victoria Street A4E intervention, Grafton Gully Boulevard					
Grafton Gully Boulevard on The Strand	▶ Related projects: restrictions to east-west general traffic										
Symonds Street, Anzac Avenue, Learning Quarter circulation changes	▶ Related projects: University interests, Wellesley Street bus interchange, removal of SH1 on-ramp										
Albert Street circulation changes					CRL station opens	Related projects: CRL station opens, Customs Street A4E intervention, Queen Street A4E intervention, Victoria Street A4E intervention					
Victoria Street circulation changes				Linear Park opens	CRL station opens	Related projects: Linear Park opens, CRL station opens, Customs St A4E interventions, Quay St A4E intervention, Karangahape Road–Pitt Street A4E intervention, Grafton Gully Boulevard					
Quay Street circulation changes and Lower Hobson Street flyover removal	▶ Related projects: Downtown Carpark site construction, Customs St A4E interventions, Victoria St A4E intervention, Karangahape Road–Pitt Street A4E intervention, Grafton Gully Boulevard										
Hobson Street redevelopment	▶ Related projects: Parking reduction at Downtown Carpark site, Quay Street A4E intervention										
Nelson Street redevelopment	▶ Related projects: Hobson Street A4E intervention										
Britomart circulation changes	▶ Related projects: Customs Street A4E intervention, Quay Street A4E intervention										
Federal Street circulation changes	▶ Related projects: DPO programme, Albert Street A4E intervention, Victoria Street A4E intervention										
Wolfe Street circulation changes	▶ Related projects: DPO programme										
Northern cycle connection							Northern Pathway opens	Related projects: Northern Pathway opens, Customs Street A4E intervention			
Wynyard – Viaduct circulation changes											

Figure 12-6: Prioritised interventions with committed dependencies

The resulting optimisation of the programme means that the high priority interventions in terms of sequencing are Karangahape Road, Pitt Street station area circulation changes, Albert Street circulation changes and Victoria Street circulation changes as these are all related to the City Rail Link stations and the Te Hā Noa Victoria Street Linear Park. The northern cycle connection has a defined timeframe, so this is recognised, however is not as urgent.

Sequencing main interventions

These provide an end-date by which related interventions must be investigated and (if desired) implemented.

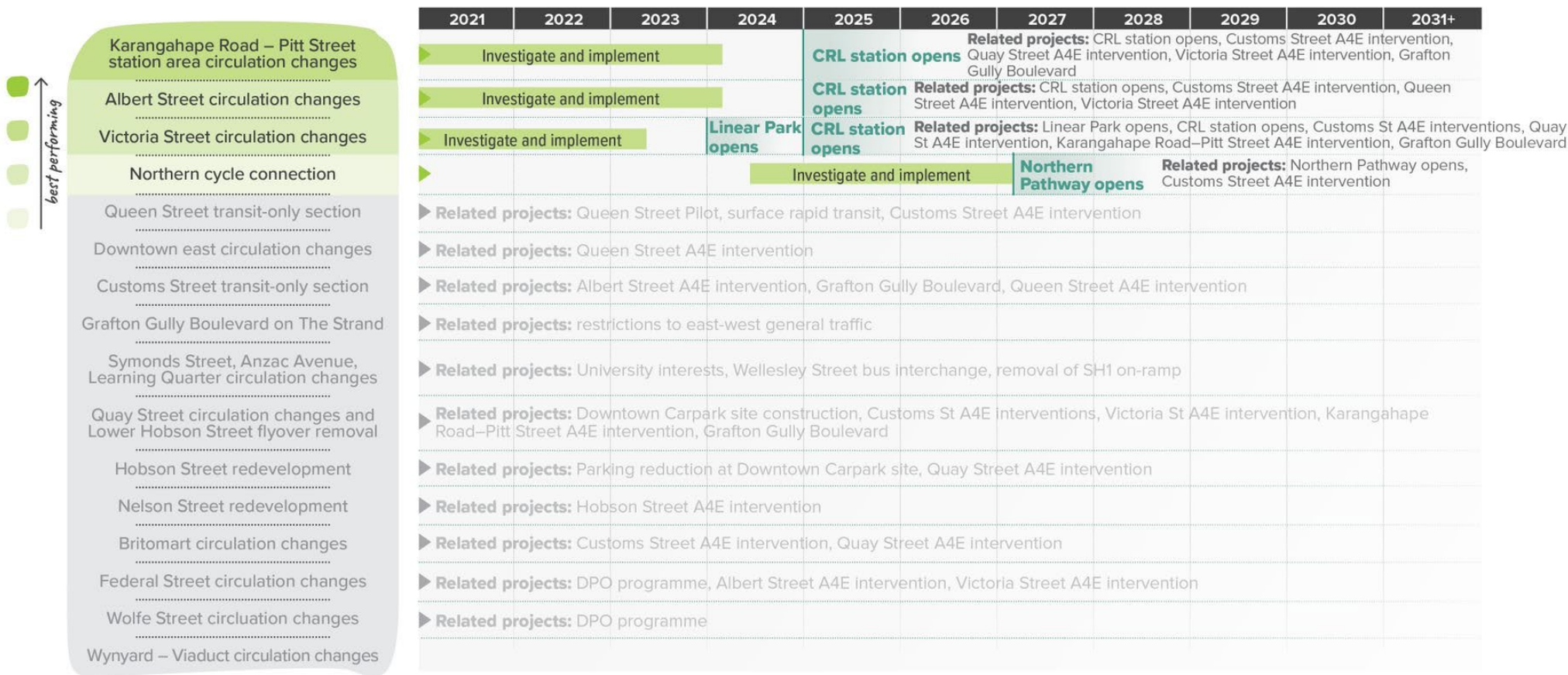


Figure 12-7: Re-prioritised sequencing with committed projects

In the absence of a specific dependency or a committed project, the remainder of the interventions retain the optimised sequencing from Figure 12-3. Timing is estimated and groupings based on a logical geographic approach to minimise disruption and enable a logical circulation pattern (Figure 12-8).

Sequencing main interventions

Other related projects are less certain to occur at all or at a precise time. The evaluation for each intervention can provide a starting place for its timing. If and when related projects become more certain, the implementation timeframe of related A4E interventions may change. Related projects include those external to A4E and other A4E interventions that have interdependencies with one another.

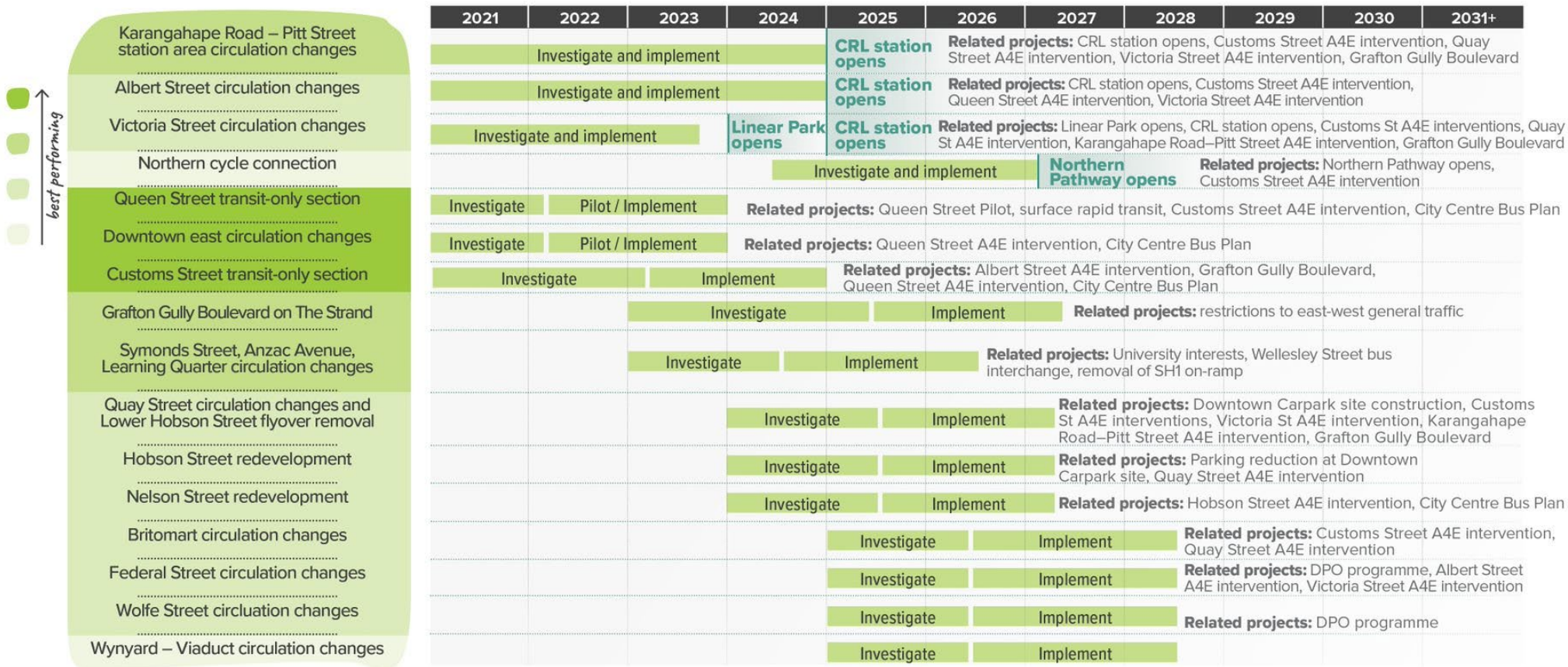


Figure 12-8: Optimised preferred programme of interventions

12.1.5 Recognising Uncertainty in The Programme: Sensitivity Test

The multiple workstreams, multiple agencies and constant change in the city centre generated by both private and public sector investments, changes and projects is both an opportunity and a risk in the delivery of Access for Everyone. The ability of the programme to be adaptable is essential. As an example of how a decision on a major city centre investment could influence the proposed sequencing, Auckland Council recently announced the proposed sale of the Downtown Carpark. If this building is redeveloped, this may require or enable the removal of the Hobson Street flyover. This, in turn would trigger the proposed changes to Nelson Street, Hobson Street and Quay Street and affect the sequencing of the programme (Figure 12-9). The ability to manage this uncertainty is important and is addressed in the Management Case.

Sequencing main interventions

For example, if commitments were made to reduce the amount of parking at the current Downtown Carpark site sooner or more significantly than expected, this may influence the desired timeframe of the Quay Street A4E intervention and the Hobson Street A4E intervention.

The Hobson Street A4E intervention may influence the desired timeframe of the Nelson Street A4E intervention. As such, the A4E programme is intended to be a flexible starting place to be adjusted as related project evolve.

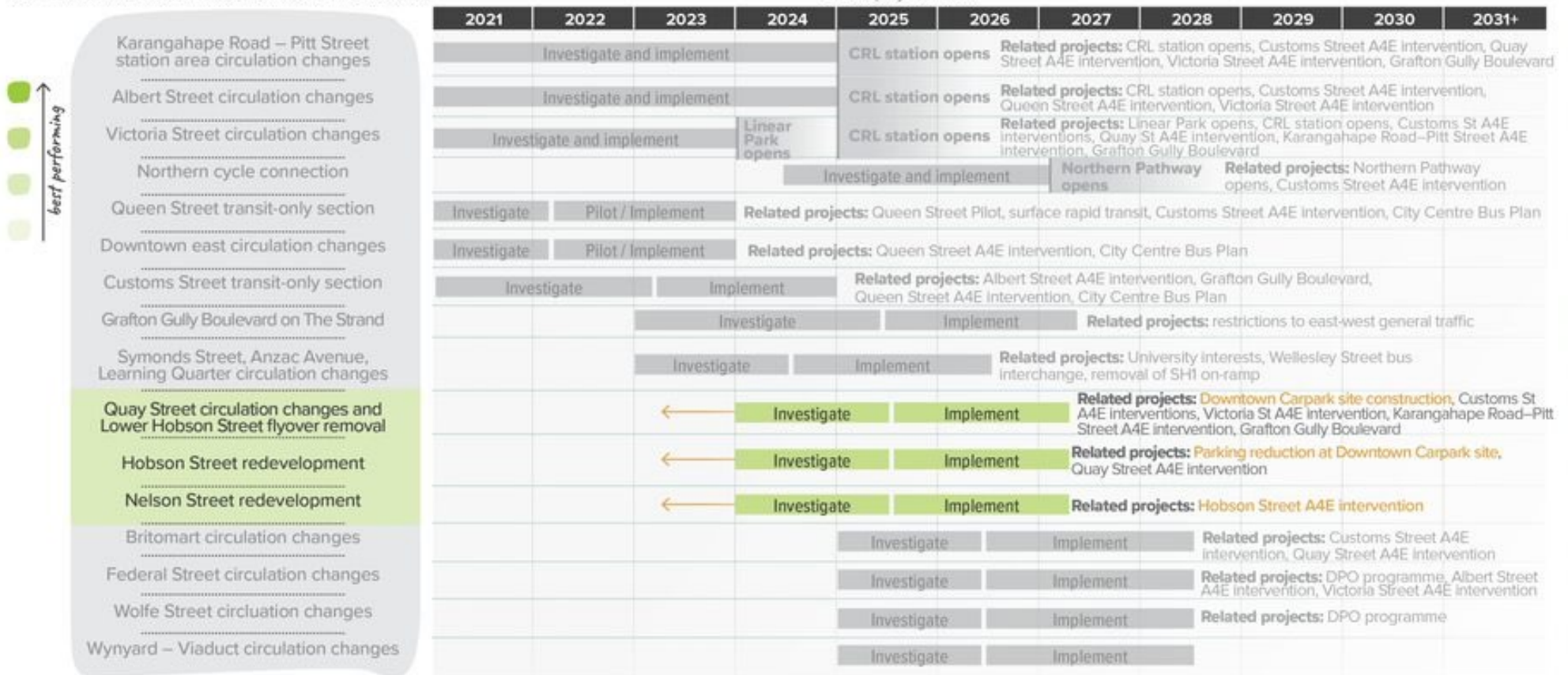


Figure 12-9: Potential impacts of Downtown Carpark redevelopment



Re-timing and prioritisation of workstreams in this sensitivity test means that there could be a need to commence investigations, engagement and potentially a business case for changes to Lower Hobson Street and Quay Street, Nelson Street and Hobson Street to align with a proposed development on this site, depending on the nature and commercial arrangements of the proposed development. Depending on funding availability and the status of other interventions planned ahead of the Hobson Street, Nelson Street and Lower Hobson Street/Quay Street interventions, this may require pushing some interventions back in time.

There are numerous potential outcomes of this type, of which this is one example developed as a sensitivity test. The Management Case provides an approach that is intended to enable a framework through which the programme implementation can be managed.

12.1.6 Building Risk Mitigation into the Programme

There are multiple potential triggers in the city centre that could influence the sequencing in the recommended programme. There will need to be an ability to influence timing and sequencing of related developments in the city centre correspond to these developments. This will be critical to managing key risks in relation to disruption and community/stakeholder acceptance as well as efficient spend and network management. There are also opportunities. There is the potential to leverage related projects and bring forward benefits in an efficient manner in a similar way to the proposed leveraging of City Rail Link works and the Connected Communities programme outlined in Section 12.1.4

The Management Case (Section 15) is the mechanism through which these risks and opportunities are proposed to be managed.

Summary of key risks

Given the complexity and well-proven sensitivity of the city centre, the risk assessment is a key driver of the sequencing of the recommended programme. High ranking risks (refer to Appendix E) include:

- Outcomes and effectiveness being undermined by misaligned projects or lack of implementation of dependencies, including additional capacity for mode shift.
- Poor support and outcomes for business through inadequate inclusion of freight and servicing needs for business
- Key land or business owners being unhappy and challenge outcomes
- Construction and consultation fatigue among city centre residents, businesses and users undermining support for the programme
- Inability to agree network management principles with operational sections of organisations resulting in poor performance of the network.

These are all related to co-ordination between workstreams, the potential effects of circulation and access changes on business and residents and the perception of the programme among key stakeholders and partners. All of these risks are related and have a consequence in the ability to realise the benefits.

Risk of change for users

The preferred programme involves change in the way the city centre's traffic circulation works. While the change is proposed to be staged and gradual, in an environment like the city centre with numerous transport options and with people's work, recreation and travel behaviours changing rapidly, there is significant uncertainty as to how changes will be responded to. Some significant changes have already been made though temporary changes for the construction of the City Rail Link and permanent changes on Albert Street and Quay Street.

This risk is mitigated to the extent that it applies to general traffic and by the patterns of movement and network characteristics outlined in the Strategic Case, in particular:

- General traffic is the least efficient mode of transport serving the city centre (Section 6.2) and is already over-provided for and unreliable

- Traffic has a low and static mode share in peaks while other modes are growing significantly (Section 3.4.1)
- Most vehicle trips are going “to” the city centre – movements prioritised more than through movements (Section 3.4.1)
- The city centre has significant travel options in the form of public transport, cycle routes and walking routes
- Prioritising general traffic is contrary to urban amenity, safety and climate change outcomes

The risks associated with circulation changes are likely to apply most significantly to trips that have little or no choice other than to access the city centre by vehicle, including freight, servicing, loading, mobility access, taxis and ride hail operations.

Mitigations

The mitigation of these risks is a key driver of the preferred programme. The successful delivery of Access for Everyone and the benefits it can provide means that the early actions are designed to:

- Establish project co-ordination and responsiveness through implementation of an appropriate management structure
- Ensure the ability to provide servicing, loading and mobility access by developing and implementing a strategy for servicing, loading, taxi/ride hail, mobility access, emergency access and parking.
- Effectively engaging with stakeholders through establishing a cohesive engagement process
- Collecting information on the performance of changes on residents, business and the movement network to improve the quality of decision making and engagement
- Leveraging existing projects to deliver early outcomes with minimal disruption.
- The use of trials to test concepts where appropriate
- Active travel demand management, to incentivise the required mode shift to public transport and active modes and provision of adequate capacity.

These interventions are part of the suite of **enabling strategies** assessed at the Short List stage. The high priority actions for the programme involve establishing a governance structure to co-ordinate and prioritise the programme, engagement activities, monitoring and research as well as developing and implementing strategies to deal with servicing, loading, mobility access, parking and taxis/ride hail services.

Also important is the delivery of related public transport capacity and performance measures, including the City Centre Bus Plan. This could include extending the peak period for bus services to provide additional capacity. There are a range of other major improvements in public transport access to the city centre proposed, but not yet defined in the next two decades which will significantly enhance the ability of the network to achieve the desired mode shift, including:

- Light rail to the isthmus and Mangere
- Rapid transit to the north west
- Additional rapid transit to the North Shore
- Rail network enhancements
- Ferry enhancements

12.1.7 Final Preferred Programme

As a result of the assessment in Sections 12.1.2 to 12.1.6, the full preferred programme builds on the physical and operational changes outlined in Section 12.1.1 by adding actions to reduce risk and ensure integration. This is shown in a simplified form pictorially in Figure 12-10.

The full preferred programme is shown across a ten-year period in Appendix B. Key elements are described here.

Action Area 1: Set up and manage co-ordination, governance, engagement and monitoring

The immediate tasks would be the establishment of a project office and resources to support it. Described in greater detail in the Management Case, this workstream should in Year 1 could be:

- Secure key roles, including a Project Director, Engagement/Communications Manager, Technical Lead and Travel Demand Manager.
- Conclude agreements between partner agencies (Waka Kotahi, Auckland Council, AT) to jointly implement the programme with consequential mandates to key people and organisations.
- Establish reference groups and forums to enable programme-wide engagement with key stakeholders, interest groups and organisations.
- Develop an engagement plan to guide the timing and scope of engagement on delivery of the wider programme.
- Use the KPIs and measures from the Benefit Realisation Plan and others developed as appropriate to monitor the effectiveness and effects of the programme.
- Develop and resource a plan to collect, analyse and report data to governance and reference groups to inform ongoing decision making and design of the programme as it is rolled out.
- Establish gateway reviews and processes to allow ongoing refinement of the programme
- Ensure linkages and connections with other city centre business case work are well understood and integrated.

In Year 2 onward, it is proposed that these structures and processes will be resourced and managed and improved in response to the needs of the programme, its partners and stakeholders.

Action Area 2: Develop and implement Enabling Strategies

The traffic circulation changes in Access for Everyone are intended to reduce unnecessary vehicular traffic in the city centre. Some vehicle trips that are essential, such as loading, servicing and mobility access. In response to consistently raised concerns of key stakeholders, the potential effects of changes in traffic circulation and access and consequential risks identified in this business case, a Year 1 action is to develop a **comprehensive strategy for managing essential trips**. This should include:

- Servicing and loading
- Freight
- Mobility (disability) access
- Taxis and ride hail services
- Parking (on and off street)
- Emergency services
- Enforcement

This comprehensive plan should include the needs of the business community and the residential community of the city centre. There will be a need to integrate with existing workstreams considering the allocation of kerb space and specific projects as required. While some of these actions are part of Auckland Transport and its partners' business as usual, the achievement of Access for Everyone's benefits will require specific approaches.

The changes that Access for Everyone will make will reduce the capacity of the city centre for general vehicular traffic and in particular cross-city movements. While the business case establishes benefits of doing so, it is considered an important mitigation to develop strategies to influence travel choices through travel demand management strategies. A Year 1 action is to develop a **Comprehensive travel Demand Management** (TDM) strategy for the city centre. While it is noted that there is significant rapid transit investment proposed in the next two decades, in the interim, encouragement of mode shift to public transport may require additional bus services. This could, for example be delivered on the shoulder of the peaks to minimise cost and use spare capacity in the system.

This workstream should also include influencing **land use outcomes** in partnership with Auckland Council. This could invoke a range of mechanisms, one of which is the management of outcomes through the Unitary Plan.

The implementation is likely to involve **legal mechanisms** as well as physical changes to the street network. There is likely to be a requirement to limit access to certain streets for certain vehicle types at certain times of the day or week in order to fully realise the benefits and retain the most efficient city centre function for businesses, residents and other users. There is also a clearly established intent to implement a **zero emissions area** (ZEA) in the core of the city centre. These outcomes may require the implementation of legal mechanisms to fully realise the benefits and mitigate potential risks.

Action Area 3: Leverage current workstreams

The current and planned implementation of significant city centre projects represents an opportunity to implement the outcomes sought in a manner that is efficient and minimises disruption to the city centre. Activities would vary from project to project, however the intent would be to adjust the scope of projects and amend outcomes to deliver Access for Everyone outcomes as well as the outcomes of the specific project. While this style of implementation is likely to be one that applies across the life of the implementation, three opportunities exist now.

City Rail Link Stations

With new stations being opened at Aotea and Karangahape Road, each involving significant street reinstatement, there is the potential to negotiate changes to the reinstatement design to give effect to desired changes in the Karangahape Road/Pitt Street area as well as Albert Street and Victoria Street. Some of the proposed reinstatement does not cater for forecast pedestrian demand on the interfaces, and as a result gaps are likely to exist between what City Rail Link Limited is delivering and what is currently provided in other programmes. This may involve additional investment which is likely to require a business case to secure funding, but the benefits in delivering improved outcomes in these high priority locations in a manner that minimises disruption are considered significant. This process has been carried out by Auckland Transport in relation to the recently completed Lower Albert Street area, so has some precedent.

Given the advanced status of the City Rail Link works, this action is one of high priority.

Te Hā Noa Victoria Street Linear Park

Auckland Council is under way with detailed design for the Federal Street to Kitchener Street section of the Te Hā Noa Victoria Street Linear Park. There is an opportunity to work with Council to implement circulation changes as part of this project that give effect to Access for Everyone and implement these changes with the initial delivery of the linear park and avoid re-work and disruption. This could include changes to assist servicing and loading.

Connected Communities

The Symonds Street/Anzac Avenue corridor is part of the Connected Communities project and is scheduled for implementation in 2024. This is currently in the Single Stage Business Case phase. When considered in conjunction with the Queen Street project there is an opportunity to expand the scope of the Connected Communities project to deliver circulation changes to the Learning Quarter area that will deliver part of Access for Everyone.

Action Area 4: Network optimisation

The changes in traffic circulation that enable the creating of additional time and space for more efficient modes of transport, better quality urban realm and reduced conflicts for better safety will require operational responses in the way traffic is managed. This has been reflected in this business case through the recognition of the need to make more use of the motorway ring and Mayoral Drive connection for traffic distribution. The management of these routes and other changes in priority will require the development of, or change to, a Network Operating Plan and suite of operational protocols that are jointly applied by Waka Kotahi and AT. This should be established as an early action and managed thereafter to respond and give effect to changes in the network.

There are core two elements, one within the city centre itself and another in the surrounding network. This will require an extensive and co-ordinated strategy, probably by way of an agreed Network Operating Plan to manage the network appropriately. The Network Operating Plan will need to extend to cover the state highway and local network to a scale that is capable of managing and influencing travel and route choices. This strategy is expected evolve as the Access for Everyone programme is gradually introduced, however is an early action as there is likely to be a significant lead-time. This plan is likely to develop a work programme including physical and operational changes to the network and address information and wayfinding requirements that the circulation changes require.

Action Area 5: Quick wins, trials and short-term projects

As has been the practice of Waka Kotahi, Auckland Transport and Auckland Council in recent years, there are opportunities to co-ordinate and deliver trials and short-term projects to test changes, monitor outcomes and deliver early benefits. There are projects under way at present without this business case being in place that are highly aligned with Access for Everyone such as Council's Queen Street Project and Waka Kotahi's proposed cycling improvements to Grafton Gully and Stanley Street.

There is an opportunity to implement early circulation changes and road space reallocations to pilot permanent changes as the programme progresses. While these have not been identified specifically in the preferred programme, it is a recommendation that appropriate quick wins, trials and short-term projects are developed. It is recommended that Auckland Transport use the lessons learned from Innovating Streets to inform trials. Considering the sensitivity of the city centre environment these trials will need to be of a high quality and meet 'place' objectives.

Action Area 6: Queen Street

The Queen Street Pilot implemented in 2020 and the subsequent Queen Street Project currently in implementation phase have experienced significant stakeholder interest and some opposition. Queen Street is a street of great significance to many people, including users, residents of the city centre, land and business owners.

The Queen Street project is expected to have a "life" of five years, after which a permanent response is planned. Access for Everyone includes this permanent response. To ensure that there is high levels of alignment on the permanent Queen Street outcome, it is proposed that engagement and planning on the permanent outcome is commenced early in the life of the Queen Street Project to ensure that lessons are learned, engagement is of quality and depth and the outcome is successful for everyone with an interest in Queen Street. Queen Street is also potentially dependent on the Auckland Light Rail project. Outcomes of

this project will dictate the approach to Queen Street. This dynamic illustrates the need to strong governance and programme management.

Action Area 7: New interventions

Once the abovementioned actions are in place, it is proposed that business cases and plans are put in place, the programme proposes that business cases, investigations and designs are progressed for elements of the Access for Everyone programme not included above.

This business case presents a sequencing based on the assessment described here, however the proposed governance, engagement and monitoring processes can be expected to review the packaging and sequencing as required.

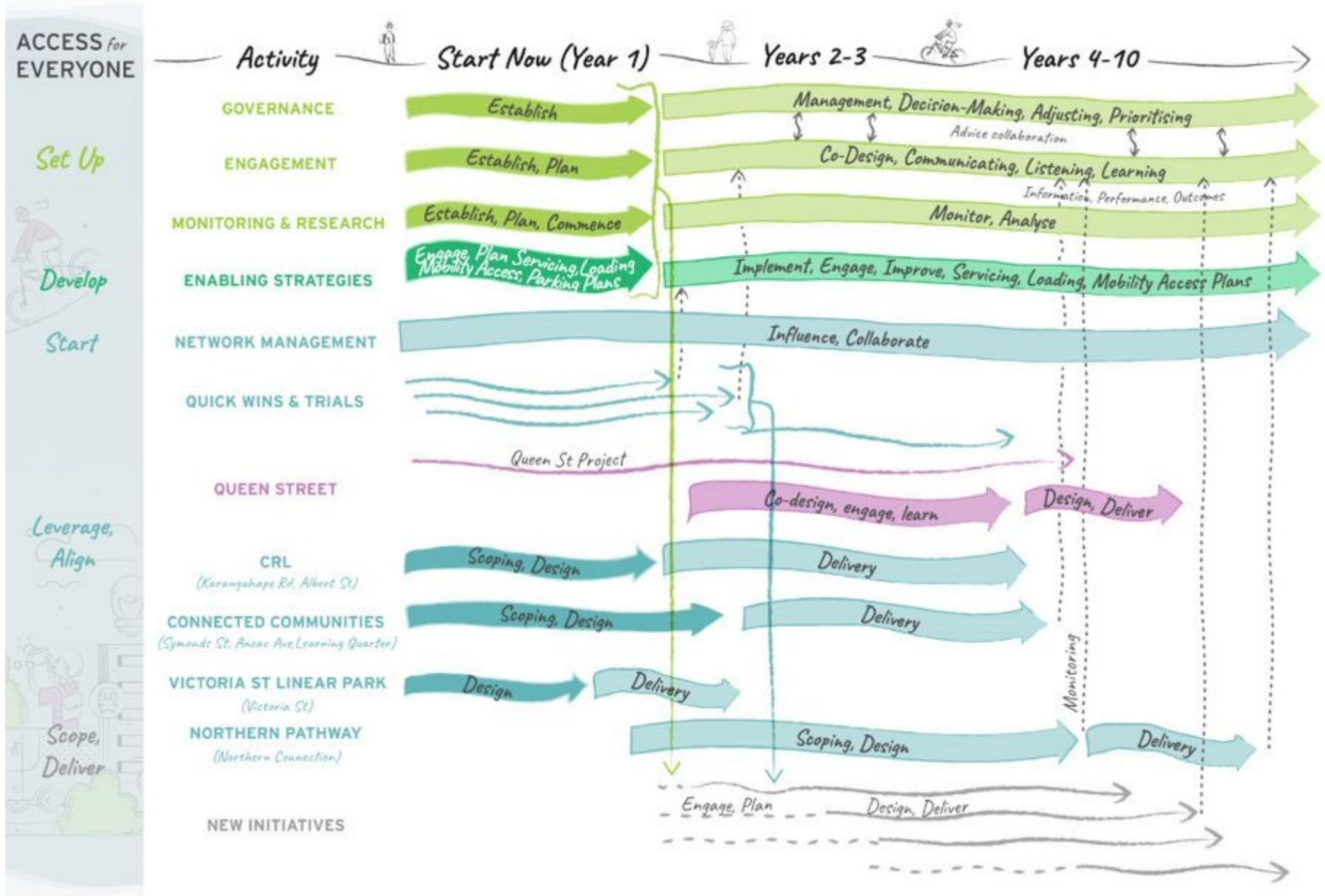


Figure 12-10: Summary of the programme

12.2 Appraisal Summary Table

Appraisal Summary tables are included in Table 12-1, Table 12-2, Table 12-3 and Table 12-4 and have been prepared in accordance with Waka Kotahi requirements. Table 12-2 lays out the estimated impact of the recommended programme on the project KPIs as based on outputs from the economic analysis (refer to Appendix I. These outputs are based on a singular MSM model run with assumptions applied between options. Outputs are stated as differences between the do-minimum and recommended programme, rather than standalone figures, as raw magnitudes would be uncertain and misleading. Unless stated, the figures in Table 12-2 are from 2028 outputs, figures for 2048 can be found in the full economics report (Appendix I).

Appraisal Summary Preferred Option					
Date:	August 2021	Evaluation Period: (baseline and forecast year)	2016 - 2038	Option Name:	Access for Everyone: <i>Recommended Programme</i>

Table 12-1: Appraisal summary table (strategic alignment)

Problem/opportunity statement:	Investment objectives:	How project gives effect to GPS:	How project gives effect to local community outcomes:
<p>Problem 1: A disproportionate allocation of street space to inefficient transport modes causes unreliable access for all users limiting the city centre's economic potential.</p> <p>Problem 2: A dominance of design and management for traffic, and Inadequate design for people creates poor quality places and user experience limiting the social, economic and environmental potential of the city centre</p> <p>Problem 3: High concentrations of people and high exposure to traffic results in harm and health issues from crashes, noise and pollutants</p>	<p>The overall PBC adopted objectives are:</p> <ul style="list-style-type: none"> To enable the city centre to achieve its potential as a place of business and employment Improve access for freight and service & delivery Improve as a place for economic, cultural and social activities Improve the experience for and growth in tourism and visitors Reduce harm to all users from crashes Reduce the exposure of people to harmful noise and emissions 	<p>The Government Policy Statement on Land Transport 2021 sets out the Government's priorities for expenditure from the National Land Transport Fund over the decade from 2020/21 – 2029-30. In the Statement of Performance Expectations published by Waka Kotahi, the provision and improvement of public transport networks contributes to road safety, providing access to social and economic opportunities, and reducing the impacts of the transport sector on the environment.</p> <p>Safety: The city centre is shown to be a high-risk area for vulnerable users in particular. The recommended option reduces vehicle volumes throughout the city centre – reducing the risk of crashes, and between 80-90% reduction in deaths and serious injuries injuries along many key corridors (Queen Street, Symonds Street, Customs Street).</p> <p>Better travel options: The city centre has a wide range of travel choices; However, the most effective choices are not as attractive or viable as they should be. The recommended option significantly increases the attractiveness of these modes by expanding the city centre cycle network, increasing space allocated to pedestrians in high volume pedestrian areas, and providing enhanced public transport priority and infrastructure along the main public transport corridors.</p> <p>Climate change: The PBC seeks a rebalancing of the network to reduce car dependence and promote active modes and public transport which is highly aligned with the Government Policy Statement on Land Transport.</p> <p>In summary, the Access for Everyone PBC is fully aligned with the Government Policy Statement on Land Transport 2021.</p>	<p>The city centre is Tamaki Makaurau 's primary centre. It plays a critical role in the success of both Auckland and New Zealand. Access for Everyone is intended to support the city centre's function and development by managing access and mobility to and within the Tamaki Makaurau city centre. Its purpose is to prioritise public transport and active modes and reduce the negative impacts the transport network has on the amenity of the city centre and the health and safety of the people living, working and visiting the city.</p> <p>The 2020 City Centre Masterplan provides the politically endorsed, strategically aligned 20-year vision for Tamaki Makaurau city centre and is a key part in ensuring the on-going success of the city centre. Auckland Transport has identified that achieving the Council's city centre vision is dependent on the implementation of Access for Everyone. This strategic approach to city centre access will support public transport, safe walking and cycling, air quality improvements and public space outcomes.</p> <p>Solving the Access for Everyone problems is highly aligned with the ATAP (Auckland Transport Alignment Project) programme 2021-2031. The Access for Everyone outcomes are aligned with its outcomes. This project will provide 'Better Travel Choices' by accelerating mode shift by redressing road space allocation and prioritising efficient modes, contributing to climate change outcomes by reducing emissions, increasing access to jobs and improving safety outcomes.</p> <p>This PBC will also give effect to local community outcomes stated in:</p> <ul style="list-style-type: none"> The Regional Public Transport Plan (RPTP) which seeks to ensure that Tamaki Makaurau is served by a safe, accessible and reliable public transport system and flags the need for a greater emphasis on more efficient and reliable bus access to the city centre, whilst acknowledging improving their integration with urban realm. Auckland Plan. The Plan refers to the City Centre Masterplan as the vehicle for establishing outcomes in the city centre, which identifies Access for Everyone as a core component. Supporting the city centre's access, amenity and safety will help the centre become the primary place of business, education, living and recreation that the Auckland Plan seeks. Access for Everyone is a flagship project within the Waka Kotahi's Keeping Cities Moving plan, seeking efficient operation of the city centre's rapid transit network and creating more space for people to enjoy. Future Connect, by providing access to employment and social opportunities, providing alternative choices to the private car, reducing emissions and improving environmental outcomes and Improving safety. The Mayor has signed Tamaki Makaurau up to a C40 initiative to have a Zero Emissions Area (ZEA) within the Queen St valley by 2030, and the Access for Everyone recommended programme enables this. It will also address the requirements for reducing Tamaki Makaurau's carbon intensity within the Auckland Climate Action Framework.

Table 12-2: Appraisal summary table (Investment Prioritisation Method)

Transport Outcomes		Non-Monetised Impact:			Monetised Impact:	
Name of Benefit:	Name of Measure:	Baseline:	Do Minimum:	Recommended Option	Do Minimum:	Option Impact (2028):
Healthy and Safe People						
3.1 Impact of mode on physical and mental health	3.2.1 Ambient air quality - NO2			-7.1 tonne annual reduction relative to the do-minimum (2028)		Annual emission reduction benefits 2028 (cars): \$4,200,000
3.1 Impact of mode on physical and mental health	3.2.2 Ambient air quality - PM10			-2.0 tonne annual reduction relative to the do-minimum (2028)		
3.3 Impact of noise and vibration on health	3.3.1 Noise level		City-wide car trips to/from city centre (2028): 247,000	City-wide car trips to/from city centre (2028): 210,000 (15% reduction)		
1.1 Impact on social cost of deaths and serious injuries	1.1.1 Collective risk (crash density)			80-90% reduction in deaths & serious injuries on high risk corridors - Symonds Street, Customs Street, Victoria Street, Queen Street. Significant reduction in other high-risk areas due to circulation changes – Karangahape Road, Hobson Ridge.		Annual safety benefit: \$9,000,000
1.1 Impact on social cost of deaths and serious injuries ⁵⁸	1.1.2 Crashes by severity	900 per year		600 per year		
	1.1.3 Deaths and serious injuries	10 per year		7 per year		
2.1 Impact on perceptions of safety and security	2.1.1 Access – perception			With low traffic neighbourhoods, reduced vehicle volumes, safe and fully segregated cycling infrastructure and widened footpaths across the city the perception of safety and the ease of walking and cycling is expected to increase considerably.		
Economic Prosperity						
5.2 Impact on network productivity and utilisation	5.2.6 Access to key economic destinations (all modes)			City centre accessibility via public transport and active modes is expected to increase with the additional capacity created for access: +5km of separated cycle lanes +3.6km widened footpaths on major pedestrian thoroughfares +2.6km public transport priority Some general traffic trips become longer and more circuitous. As a result, the accessibility to the city centre by car is expected to decrease slightly.		Annual 2028 pedestrian travel time benefits: \$10,000,000 Annual 2028 public transport travel time benefits: \$7,600,000 Annual 2028 public transport reliability benefits: \$6,800,000
5.1.2 Travel time reliability	5.1.2 Travel time reliability – motor vehicles (Freight, Service & Delivery)			Access for Everyone is not expected to have a significant overall impact on freight. While circulation changes may lead to increased congestion, 'enabling measures' are included as part of the recommended programme to manage large vehicle movements and manage demand to limit the impact of the wider programme on congestion. The Grafton Gully Boulevard is also expected to adding freight priority, in particular for port access.		Annual 2028 road user travel time benefits (negative): -\$48,000,000

⁵⁸ Crash volumes (measures 1.1.2 and 1.1.3) estimated from 5-year reported crashes with applied underreporting rates from MBCM to estimated actual crash volumes. Figures shown are annual estimates.



Transport Outcomes		Non-Monetised Impact:				Monetised Impact:	
Name of Benefit:	Name of Measure:	Baseline:	Do Minimum:	Recommended Option	Do Minimum Impact:	Option Impact:	
Environmental Sustainability							
8.1 Impact on greenhouse gas emissions	8.1.1 CO2 emissions			-18,000 tonne annual reduction relative to the do-minimum (2028)		AS ABOVE: Annual emission reduction benefits in 2028 (cars): \$4,200,000	
8.1 Impact on greenhouse gas emissions	8.1.2 Mode shift from single occupancy private vehicle			The recommended option is expected to reduce daily general car trips by 37,000, of which 6,000 trips will be shifted to PT. This is expected to lead to an estimated mode shift of vehicle-based (car or public transport) trips of 7%. This mode shift estimate excludes active modes, which are expected to increase significantly. As a result, mode shift is expected to exceed 7%.			
Inclusive Access							
12.1 Impact on Te Ao Māori	12.1.1 Te Ao Māori			<p><i>Qualitative assessment based on Waka Kotahi relationships between te ao māori values and wider benefits⁵⁹.</i></p> <p>Environmental outcomes: The recommended option enables a significant mode shift and resultant reduction in CO2 emissions (refer to environmental sustainability benefits above). This is in line with kaitiakitanga values.</p> <p>Safety and Health outcomes: The recommended option enables reductions in noise, DSIs and improvements in air quality and perceived safety (refer to healthy and safe people benefits above). This is in line with tangihanga and manaakitanga values.</p> <p>Access for Māori businesses as per economic prosperity outcomes (refer to benefits above). This is in line with rangatiratanga and whanaungatanga values.</p> <p>The recommended option also leads to significant improvements for urban realm, improving the amenity value and townscape (benefits 11.1.1 and 11.3.1). Which provides opportunities for cultural expression, including art and community events, green spaces, and whakapapa.</p>			
10.1 Impact on user experience of the transport system	10.1.6 People – throughput		2028 pedestrian volumes within intervention areas: 306,000 2028 daily PT patronage within interventions areas: 110,000	2028 pedestrian volumes within intervention areas: 321,000(5% increase) 2028 daily PT patronage within interventions areas: 128,000 (17% increase)			
10.2 Impact on mode choice	10.2.3 Spatial coverage – cycle lanes & paths		Estimated 7.4km of high-quality, separated infrastructure.	+5km of separated cycle lanes in addition to the do-minimum			

⁵⁹ <https://www.nzta.govt.nz/planning-and-investment/learning-and-resources/benefits-management-guidance/the-land-transport-benefits-framework/inclusive-access/12-changes-in-te-ao-maori-values/12-1-impacts-on-te-ao-maori/>



11.1 Impact on heritage and cultural values	11.1.1 Amenity value – natural and built environment			Improves the quality of existing pedestrian priority streets by limiting/ removing through traffic, widens footpaths along high pedestrian corridors and enables the reallocation of space for urban amenities including street trees, planting, seating, lighting, wayfinding etc.		Annual pedestrian realm benefits (2028): \$54,00,000 Annual agglomeration benefits: \$34,000,000
11.3 Impact on townscape	11.3.1 Townscape <i>(Allocation of space for social & cultural activities)</i>			+33,000m ² in addition to the do-minimum scenario.		
10.1 Impact on user experience of the transport system	10.1.2 Pedestrian delay <i>Pedestrian time lost due to intersection delay</i>			The recommended programme will reduce pedestrian delay, with smaller carriageways to cross and more priority for people resulting in less delay at intersections. Examples of this are the reduction in traffic lanes and traffic volumes on Customs and Queen Street.		AS ABOVE: Annual pedestrian travel time benefits (2028): \$10,000,000



Table 12-3: Appraisal summary table (summary of impacts)

1. Summary of Non-Monetised Impacts (Description)	2. Summary of Financial Impacts ⁶⁰		3. Summary of Monetised Option Impacts ⁶¹	
<p>The series of improvements proposed in the recommended option enables the reallocation of space to public transport and active modes, a significant reduction in deaths and serious injuries occurring within the city centre, improved and provision of public space as well as improvements in air quality and noise levels in the city centre (including the establishment of a Low Emissions Zone in the Waihoritiu/ Queen Street Valley.</p> <p>The full suite of improvements will collectively:</p> <ul style="list-style-type: none"> ■ Provide 3.6km of widened footpaths ■ Expand the network of separated cycle lanes by 5km ■ Provide an additional 33,000m² of public space than the do-minimum scenario. ■ Construct an extra 2.6km of public transport priority along the key public transport corridors ■ Reduce vehicle volumes throughout the city centre (estimated 15% reduction in city-wide car trips to/from city centre by 2028), reducing the risk of crashes and improving air quality and noise levels throughout the city centre. ■ Lead to an 80-90% reduction in deaths and serious injuries along many key corridors (Queen Street, Symonds Street, Customs Street) ■ Establish a Low Emissions Zone in the Waihoritiu/ Queen Street Valley ■ 5% increase in pedestrian volumes, and 17% increase in daily PT patronage within intervention areas based on 2028 estimates. 	Capital Costs	P50: \$355.5M P95: \$426.6M	Present Value of Total Monetised Benefits, <u>excluding</u> Wider Economic Benefits (WEBs)	\$985M
			Present Value of Total Monetised Benefits, <u>including</u> Wider Economic Benefits (WEBs)	\$1,430M
	Operating Costs	P50: \$30.7M P95: 34.7M	Present Value of Total Monetised Costs	\$510M
			BCR (excluding WEBs)	1.9
	Total Financial Costs	P50: \$386.2M P95: \$461.2M	BCR (including WEBs)	2.8

⁶⁰ The costs in this column have been used for the purposes of the Financial Case. Refer to Section 13 for the related assumptions, which differ slightly from those used for the economic analysis.

⁶¹ The costs (and benefits) in this column were used for the purposes of the economic analysis. Refer to Section 12.7 for a summary of the methodology taken, and Appendix J for further detail.



Table 12-4: Appraisal summary table (rationale for selecting preferred option)

Rationale for selecting preferred option

The recommended option is a suite of interventions aimed at prioritising efficient transport modes and reducing general traffic through movements to create a transport network that supports the development of a city centre that is prosperous and is a safe, healthy and high amenity place for the people working, visiting and living in it. A range of options were developed, and the recommended option was identified during a series of workshops with Auckland Transport and Waka Kotahi stakeholders.

The **Circulation Plan** significantly addresses the problems identified. Public and active transport capacity and accessibility would significantly improve, with equivalent car trips becoming more circuitous and targeted to trip types that rely on vehicles eg servicing, loading and mobility access. The enabled space reallocation would allow significant improvements in public realm and reduce vehicle volumes. The reduction in through traffic would lead to a reduction in the exposure to harm in high conflict areas – such as Symonds Street, Queen Street and the downtown area. Some critical journey types including servicing and delivery movements and mobility access are expected to become more challenging with more circuitous circulation patterns.

The short list is a collection of geographically distinct interventions that collectively would achieve the desired outcomes, and which could be implemented in a range of ways. The recommended programme is expected to be composed of the shortlisted interventions as these cover the key areas for movement and circulation in the city centre.

Through the short list assessment all options proved to meet project objectives and no critical issues were identified through the assessment of feasibility and affordability. Consequently, all were progressed into the recommended programme.

Alongside these main interventions, the enabling interventions and programme management are included within the recommended programme. They are the interventions identified to facilitate the traffic circulation changes, pedestrian realm improvements and safety improvements identified as part of the wider Access for Everyone programme. These interventions are expected to maximise the benefits of the main Access for Everyone interventions and are expected to mitigate potential disbenefits associated with any of the main interventions.

The recommended programme staging is a result of:

- The assessment profile (effectiveness) resulting from the interventions as a form of priority/importance
- The ability to mitigate the risks, effects and effectiveness deficiencies through supporting mechanisms
- The dependencies and connections between the interventions.

An overview of the preferred option and how it was chosen can be found in Section 12.2. A detailed estimate of the costs for the preferred option can be found in Appendix C: Recommended Option Cost Estimates.

12.3 Strategic Programme Outcomes

12.3.1 Achieving Outcomes of The City Centre Masterplan

The City Centre Masterplan is outlined in Section 2. The concept of a circulation plan is a core element of the masterplan and is a core support for the “transformational moves” required to achieve the masterplan’s outcomes. The programme recommended in this business case is highly aligned with the circulation plan included in the masterplan and as a result is very likely to be effective in giving effect to the outcomes of the City Centre Masterplan:

Tāmaki Makaurau - Tō tātou kāinga i te ao nei / Tāmaki Makaurau - Our place in the world – Removing the traffic-dominance from streets and selective re-routing of through traffic in the city centre to create low traffic areas for people to dwell and enable greater recognition of historic heritage as a driver of positive change.

Te pokapū tāone tūhononga / Outcome 2: Connected city centre – Rebalancing the street network and improving performance of more effective transport options in a constrained city centre environment, like walking, cycling and public transport to enable safe, healthy and sustainable travel options both inwards and outwards and improved access and choice of transport modes.

He pokapū tāone e wātea ana, e tuwhera ana hoki ki te tokomaha / Accessible and inclusive city centre – Providing improved travel choices will create a more accessible and inclusive city centre that is welcoming to all in Tāmaki Makaurau.

Pokapū tāone tauwhiro taiao / Green city centre – Enabling more space for quality urban realm, trees and green spaces will assist in restoring biodiversity and ecological systems (Mauri Tu), enabling a healthy and happy city centre.

Te ora tūmatanui / Public life – Removing the dominance of traffic carriageways on high priority streets will enable space for public life that works well for everyone who spends time in Tāmaki Makaurau.

Te takiwā noho i te pokapū tāone / Residential city centre neighbourhoods – The creation of low traffic neighbourhoods, free from through-traffic will assist in shaping the city centre’s public realm, housing supply and social infrastructure to deliver a highly liveable city centre.

Ngā āhuatanga hanga e whai kounga ana / Quality built form – A deliberate and planned circulation plan for all modes, supported by a governance and engagement structure will provide certainty assist multiple organisations deliver a well-designed and planned city centre.

Te pokapū tāone whai tuku ihotanga / Heritage defined city centre – Rebalancing the spatial allocation of streets toward the needs of people will enable the creation of places that enable understanding, protection and conservation of city centre heritage places, landscapes and stories.

Te pokapū tāone tauwhiro taiao / Sustainable city centre – By prioritising low-carbon transport modes and enabling a Zero Emission Area in Waihorotiu, the programme will reduce emissions and set a benchmark in a high profile location for climate action. The programme will contribute to the Auckland Climate Action Framework and Outcome 5 of the Auckland Plan 2050.

Te pokapū tāone taurikura / Prosperous city centre – By prioritising the most space-efficient modes of transport, the programme will increase the overall efficiency of the city centre’s transport network, supporting its ability to grow and thrive as an economic centre. Early actions to develop a clear plan for loading, servicing, mobility access, taxi/ride hail and emergency services will ensure that mitigations for any adverse effects on servicing businesses, residents and those which need to use vehicular transport are implemented ahead of the time they are needed.

12.3.2 Climate Change Outcomes

With the Government Policy Statement on Land Transport having a strategic priority to develop a low-carbon transport system, the Climate Change Commission Report to Government in May 2021⁶² and Auckland Council having adopted Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan⁶³, the effectiveness of the programme on emissions is a critical outcome. Providing leadership in overtly prioritising low-carbon transport modes and supporting living, working and movement behaviours that do not rely on the private car in Aotearoa's largest city centre is expected to provide a significant benefit to climate change outcomes.

At a strategic level, the programme is expected to be effective in the following ways:

- Reducing CO2 emissions by around 18,000 tonnes by the late 2020s.
- Improving the attractiveness of low carbon transport options like walking, cycling and public transport in a part of Tāmaki Makaurau that has high density of land uses, movement and transport options, making the potential for mode shift highly certain.
- Creating the opportunity to develop a Zero Emissions Area in Waihorotiu, providing a flagship or exemplar climate change move in a very high-profile area that could be an enabler for greater change in Tāmaki Makaurau and Aotearoa.

12.3.3 Te Ao Māori Outcomes

12.4 Programme Outcomes Against Objectives

The overall PBC adopted objectives are to:

- Improve the productivity of the city centre
- Improve access for freight and service and delivery
- Improve the amenity of the centre city
- Improve the experience for and growth in tourism and visitors
- Reduce harm to all users from crashes
- Reduce the exposure of people to harmful noise and emissions.

Table 12-5 notes the specific measures used to demonstrate expected achievement of the intended outcomes. Each element is then expanded upon below. It should be noted that some KPIs are required for the purpose of post implementation monitoring, while others can be used to assess likely achievement of the objectives through implementing the recommended option.

Table 12-5: Project objectives and measures to monitor achievement

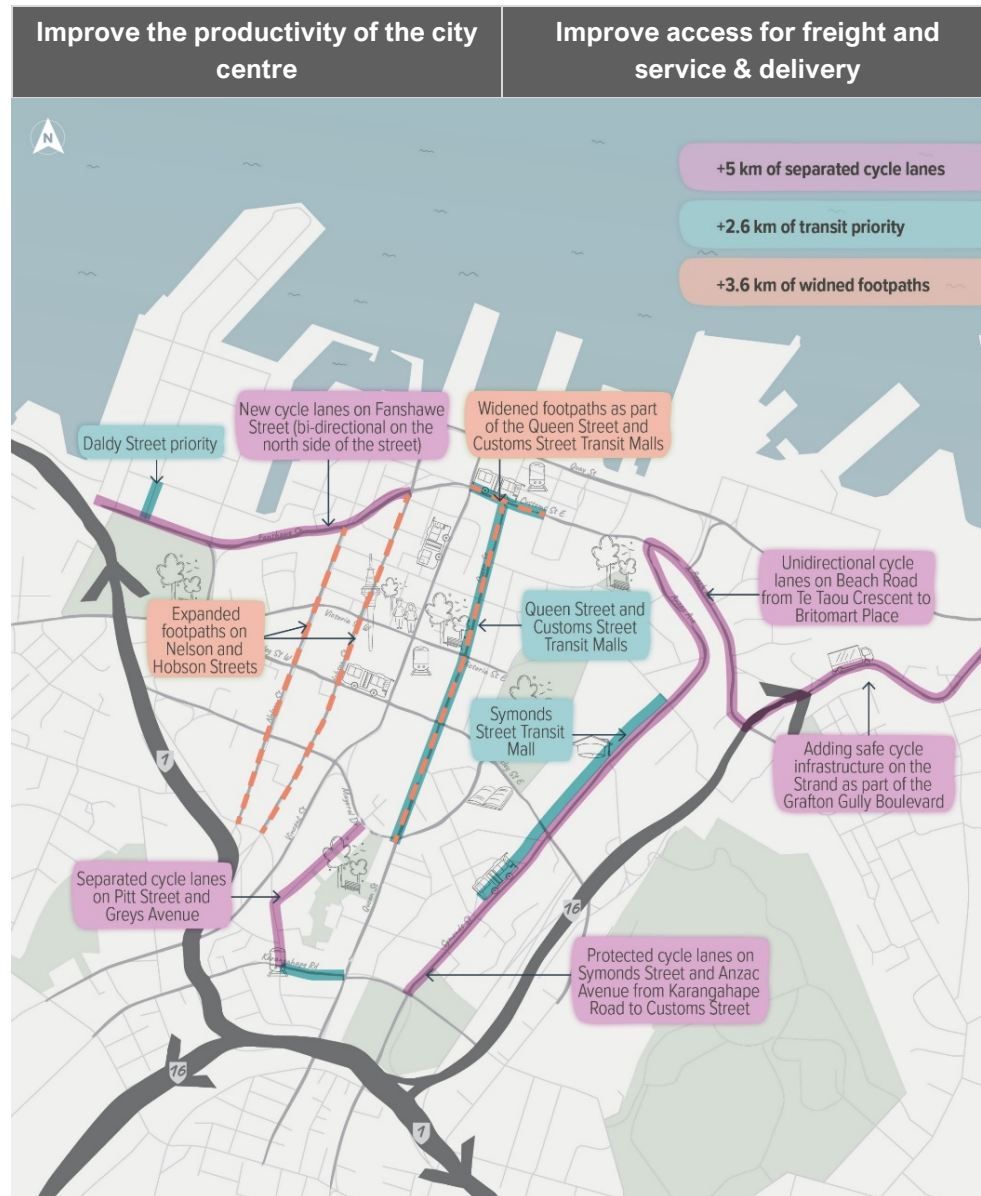
	Investment Objectives	Benefit	Measure/ KPI
ACCESS	Improve the productivity of the city centre	Changes in access to economic opportunities	Access capacity (People throughput & spatial coverage of cycle and PT infrastructure)
			Access to key economic destinations (city centre)
	Improve access for freight and service & delivery	Impact on system reliability, network productivity and utilisation	Efficiency of deliveries/servicing (specialist assessment)

⁶² <https://www.climatecommission.govt.nz/our-work/advice-to-government-topic/inaia-tonu-nei-a-low-emissions-future-for-aotearoa/>

⁶³ <https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/topic-based-plans-strategies/environmental-plans-strategies/aucklands-climate-plan/Documents/auckland-climate-plan.pdf>

	Investment Objectives	Benefit	Measure/ KPI
			Travel time reliability for freight, service & delivery
AMENITY	Improve the amenity of the centre city	Changes in access to social and economic opportunities and the liveability of places	Townscape: allocation of space for social and cultural activities
			Amenity value – built environment
	Townscape: Vehicle volumes		
	Pedestrian delay & Perception of access		
	Townscape: allocation of space for social and cultural activities (AS ABOVE)		
SAFETY & HEALTH	Reduce harm to all users from crashes	Impact on social cost of deaths and serious injuries	Crashes by severity
		Impact on perceptions of safety and security	Deaths & serious injuries and collective risk
	Reduce the exposure of people to harmful noise and emissions	Impact of air emissions on health	Access - Perception
		Impact of noise and vibration on health	Ambient air quality
			Noise level

12.4.1 Access Outcomes



As covered in the strategic case (Section 6.2), the performance of the city centre is highly reliant on access. Reliable access to employment and education is a major determinant of economic productivity and overall prosperity. Unreliability is experienced in some form by all modes, and the need to shift the allocation of space to more spatially efficient modes is clear.

The recommended programme:

- Adds significant (potentially 5km) of separated cycle lanes with improved access to existing Karangahape cycle lanes, a future northern cycle connection and the universities (among other key locations)
- Expands footpath widths on major pedestrian thoroughfares – including Queen Street and Customs Street
- An additional public transport priority along the main public transport corridors
- Reduces general traffic volumes to further reduce the impact of congestion on travel time reliability
- Removes general traffic in intervention areas to reduce pedestrian delay and improves accessibility for active modes
- Through ‘Enabling Strategies’ can the capacity of public transport serving the city centre (as part of the City Centre Bus Plan)
- Safeguards essential servicing access
- Reduce accessibility for some journeys by private car

KPI: Access capacity (People throughput & spatial coverage of cycle and PT infrastructure):

Pedestrian, cycle and public transport corridors have been demonstrated to be the most efficient in terms of movement capacity with vehicle traffic providing the least (Section 6.2.1). This is critical in a highly constrained physical environment in the city centre. The reallocation of street space and creation of additional pedestrian, cycle and public transport capacity is expected to increase the person throughput of the city centre's streets.

KPI: Access to key economic destinations (city centre)

The city centre is the largest single employment area in Tāmaki Makaurau and Aotearoa (Section 3.1 and 3.2). The additional capacity created for access to the city centre is significant in providing access to this key economic destination.

This provides highly efficient, reliable and fast travel for trips such as:

- Residents accessing jobs and other economic opportunities
- Travel between economic opportunities within the city centre – meetings, clients and other engagements

The recommended option sections the city into a series of low traffic neighbourhoods (LTN), while this allows for the reallocation of space to public space, public transport and active modes in line with the investment objectives, it does make some general traffic trips longer and more circuitous. As a result, the accessibility to the city centre by car is expected to decrease slightly, however accessibility via more effective and efficient modes like public transport and active modes is expected to increase.

The recommended option supports the operation of freight, service & delivery vehicles through the Grafton Gully Boulevard will increase capacity for general traffic and adding freight priority and through 'Enabling Strategies' which envisage a comprehensive strategy to address issues and improve outcomes.

Operational changes (signal timings and priority) and/ or physical (lane configurations and changes to ramps) to the motorway network are expected to mitigate the effects of the circulation changes on general traffic that is required to

travel around the city centre, however some trips by private car are expected to be more circuitous and longer.

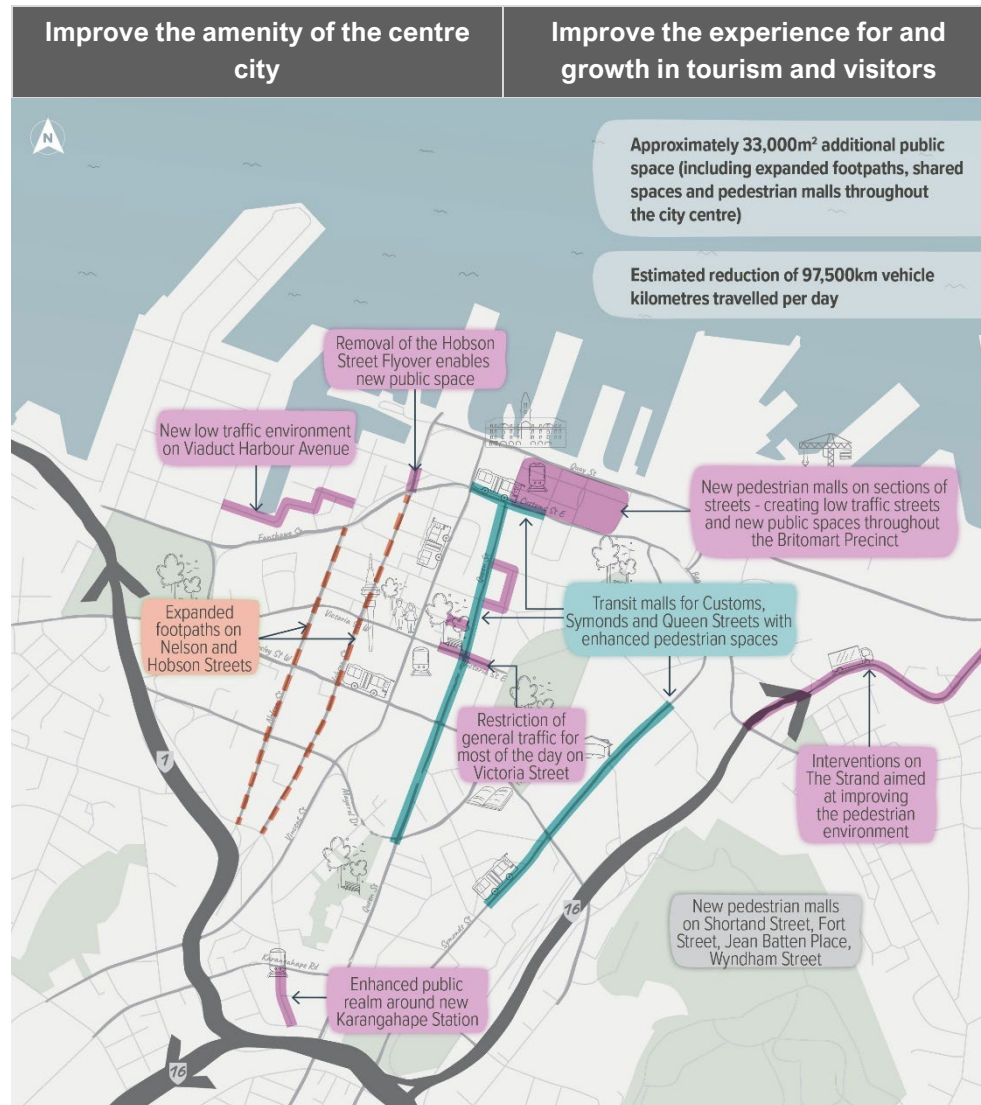
KPI: Efficiency of deliveries/servicing

Trips within the city centre for loading and servicing are expected to become more circuitous. However, the recommended programme includes kerbside management and access management for service and delivery vehicles as a first priority to manage the impact the full programme has on these users, as well as increased loading spaces provided as part of several main interventions.

KPI: Travel time reliability for freight, service & delivery

Access for Everyone is not expected to have a significant overall impact on freight. While circulation changes may lead to increased congestion, 'enabling measures' are included as part of the recommended programme to manage large vehicle movements and manage demand to limit the impact of the wider programme on congestion. The Grafton Gully Boulevard is also expected to adding freight priority, in particular for port access.

12.4.2 Amenity Outcomes



The city centre is Tāmaki Makaurau's primary centre. It is a major employment, cultural and social, residential and educational hub. The city centre's transport network needs to not only serve the role of providing high quality access, but also to perform a critical function as public space for the many thousands of people who visit the city each day.

The preferred programme seeks to reallocate street space from an over-allocation to traffic to an increased allocation to people and the amenity they seek in a city centre.

The recommended programme enables:

- An additional 33,000m² of public space over the do minimum scenario
- Transit malls on Queen Street, Customs Street and Symonds Street – improving the access for active modes and pedestrians along these major pedestrian thoroughfares
- 3.6km of widened footpaths, including along Nelson Street and Hobson Street (dense residential areas)
- Based on 2028 forecasts, the recommended programme is expected to reduce CO₂ emissions by 18,000 tonnes annually, reduce vehicle volumes throughout the city centre by an estimated 15%, and reduce vehicle kilometres travelled by an estimated 284,000km per day.⁶⁴

⁶⁴ As per economic analysis (Appendix I)

KPI: Allocation of space for social & cultural activities

The recommended programme significantly increases the allocation of space for social and cultural activities. Across the city centre there will be an increase of approximately 33,000m² (including expanded footpaths, shared spaces and pedestrian malls), particularly in place of social and cultural importance. The recommended option:

- Increases the amount and quality of public space surrounding City Rail Link stations
- Provides new pedestrian malls, shared spaces and low traffic environments around the laneways circuit (Britomart Precinct, Downtown East, Federal and Wolfe Streets).
- Creates public space along Viaduct Harbour Avenue, which is a key connector between the developing mixed development area of Wynyard Quarter with the Downtown area.
- Increases footpath widths and amenity around key residential areas most critically Nelson and Hobson Street which are the densest residential areas within New Zealand.
- Increases footpath widths along Queen Street – the main ‘spine’ or ‘core’ of the city centre and its social and cultural activities.
- Increases public space along the Symonds Street Transit Mall – the centre of the learning Quarter and spine of the University of Auckland campus.

KPI: Pedestrian delay & perception of access

Pedestrian delay throughout the city centre is expected to decrease with significant savings on major routes (eg Queen Street, Symonds Street). Vehicle volumes are expected to reduce throughout the city centre, meaning that active mode trips are safer and more attractive.

KPI: Amenity value – built environment

The majority of public space within the city centre is the street space. The recommended option:

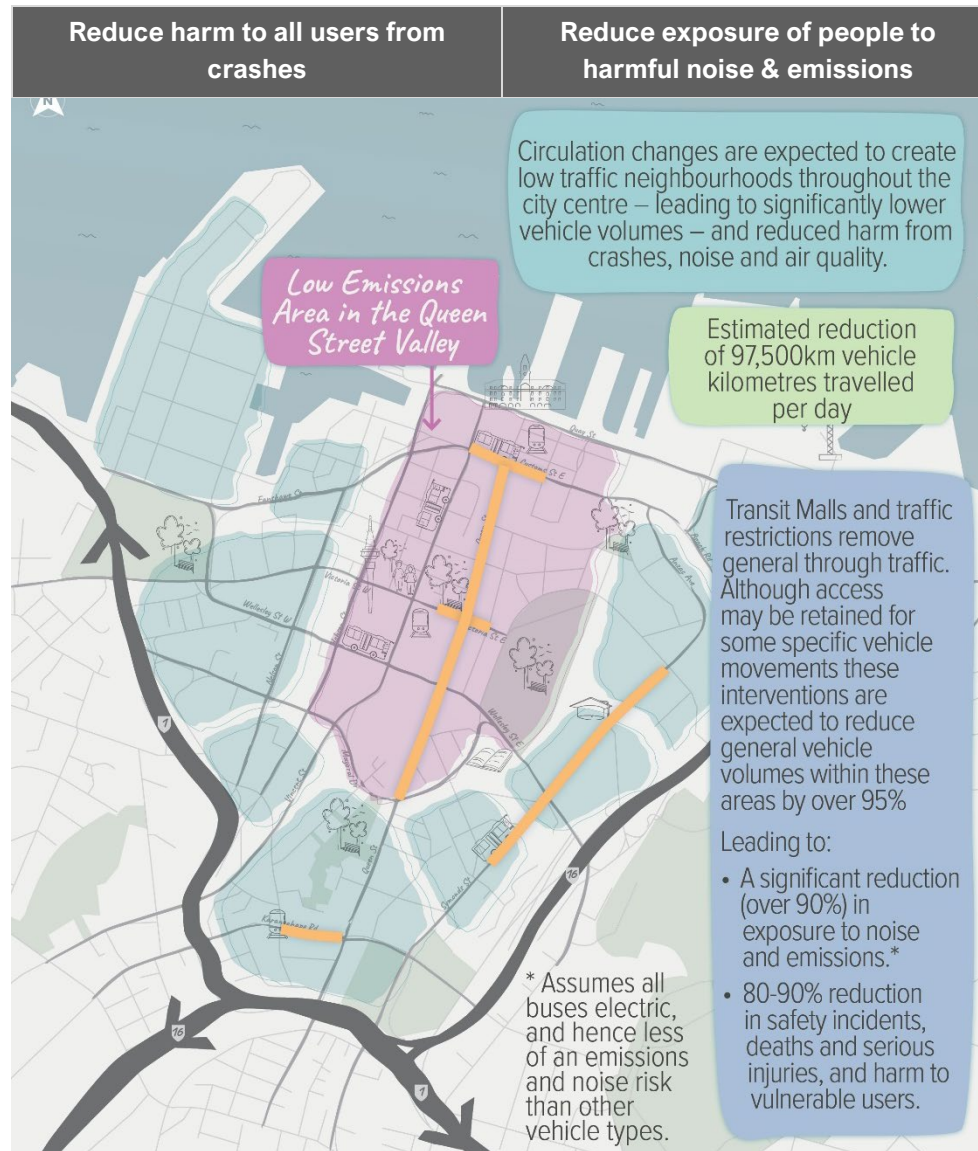
- Improves the quality of existing pedestrian priority streets by limiting/ removing through traffic (eg Britomart Precinct, Downtown East, Laneway Circuit).
- Widens footpaths along high pedestrian corridors such as Queen Street, Symonds Street and Customs Street.
- The reallocation of space enabled by the recommended programme allows for urban amenities including street trees, planting, seating, lighting, wayfinding etc. This is particularly the case for streets like Nelson and Hobson Street where current amenity is lacking – despite high resident volumes.

KPI: Vehicle volumes

Transport model (refer Appendix I) outputs show that the recommended option is expected to significantly reduce vehicle volumes throughout the city centre (by 15% in 2028), particularly in areas that function as key public spaces (including the ‘core’ of the city centre through the Queen Street Transit Mall, university campuses and public spaces throughout the laneway circuit).

There is expected to be increases on some streets, where this is a deliberate strategy to retain circulation and access for services, deliveries and other essential traffic and to connect the low traffic neighbourhoods. The motorway network is also expected to deal with greater demand for traffic.

12.4.3 Safety and Health Outcomes



The city centre is the centre of Tāmaki Makaurau and with the volume of people living there, or travelling there to work or to visit, is a particularly high-risk area for safety and health impacts. The city centre has significant issues with noise levels and air quality and the impact that has on the large number of people in the city centre. The recommended option:

- Is expected to reduce CO₂ emissions by 18,000 tonnes annually, reduce vehicle volumes throughout the city centre by an estimated 15%, and reduce vehicle kilometres travelled by an estimated 284,000km per day⁶⁵, as based on 2028 forecasts
- Creates a series of low traffic neighbourhoods across the city centre to change travel behaviours and reduce traffic volumes
- Removes traffic from sections of corridors with high volumes of vulnerable users and high concentration of crashes leading to over 90% reduction in noise and emissions, and an 80-90% reduction in deaths & serious injuries in these areas
- Establishes a low emissions zone in the Queen Street Valley – where there is higher health impacts from air quality.

KPIs: Crashes by severity, deaths & serious injuries and collective risk

The recommended programme significantly reduces vehicle volumes throughout the city centre and is expected to lead to a substantial reduction in crashes and crash risk city-wide. It removes traffic from sections of corridors with high volumes of vulnerable users and high concentration of crashes (such as Symonds Street, Customs Street, Victoria Street, Queen Street, Karangahape Road) and will lead to an 80-90% reduction in deaths & serious injuries in these high risk areas.

⁶⁵ As per economic analysis (Appendix I)

The eight corridors in the city centre that are included in the top 25 high risk routes in the Auckland region (2012-2016 data) are all expected to improve:

Queen Street (3rd): The recommended option removes all general traffic movements north of Mayoral Drive (with the exception of service & delivery vehicles) leading to an 80-90% reduction in crashes.

Karangahape Road (1st): The recommended option implements a public transport and service & delivery vehicle only section of Karangahape Road – leading to a significant reduction in crashes along the entirety of the corridor.

Hobson Street (7th) is a high-volume arterial corridor with a high population concentration. The recommended option reduces vehicle volumes along the corridor with a decrease in general traffic capacity and wider circulation changes. As a result, there is expected to be a substantial reduction in the number of crashes occurring along the corridor.

Victoria Street (11th): The recommended option removes general traffic movements on the corridor crossing Queen Street. As a result, there is expected to be an 80-90% reduction in crashes occurring in this section of the corridor, and a significant reduction of crashes along the entirety of the corridor.

Beach Road (18th): The Customs Street Transit Mall restricts traffic crossing the Queen Street Valley and is expected to lead to a significant decrease in vehicle volumes travelling along Beach Road. With improved separation of cycling movements along the corridor there is expected to be a decrease in crashes.

Albert Street (21st): Circulation on Albert Street changes so that general traffic can no longer travel the full length of the corridor. This will result in lower and slower vehicle volumes – and a notable reduction in crashes.

Wellesley Street (24th): as part of the do-minimum, a section of Wellesley Street will become public transport only – which will significantly reduce traffic volumes and resultant crash risk. As a result, the recommended option does not recommend further changes along this section of the corridor.

Symonds Street (4th) has a high number of vehicles, bus volumes, and pedestrians and cyclists. The recommended option removes general traffic movements and provides fully separated cycling infrastructure along the length of the corridor.

Customs Street and the **Britomart** area have some of the highest volumes of pedestrians within the city centre and are key cluster area for crashes with vulnerable users. The recommended option implements a transit mall section on Customs Street and implements low traffic spaces and pedestrian malls within the Britomart Precinct and Downtown East areas. As a result, crashes are expected to decline significantly. As a result of the circulation changes in the recommended programme, a larger volume of traffic is expected to be directed on to the main access corridors – in particular, Mayoral Drive, Grafton Gully and the motorway. Safety improvements and mitigation will be required along these corridors. Grafton Gully improvements in the recommended programme already improve safety significantly.

KPI: Access – Perception

The traffic circulation plan forms the city centre into a range of low traffic neighbourhoods and reduces vehicle volumes throughout the city centre. In addition, with more space allocated to safe and fully segregated cycling infrastructure and footpaths across the city the perception of safety and the ease of walking and cycling is expected to increase considerably.

KPIs: Ambient air quality & noise level

With circulation changes throughout the city centre there is expected to be a substantial reduction in general traffic movements throughout the city centre, and as a result air quality and noise level improvements. As the impact of these issues are higher in high pedestrian areas such as Queen Street the low emissions zone in the Waihoritiu Valley is expected to lead to large health benefits. There may be some disbenefits to areas such as Mayoral Drive and Grafton Gully where traffic is redistributed toward, however these are less likely to be places of greater pedestrian activity and as a result, less sensitive to this than places such as Waihoritiu.

12.5 User Experience Assessment

The following section covers the impact that recommended programme has on people in the city centre, and the impacts it has on the way that they view and use the city centre.



Public Transport Users

With transit malls on Customs Street, Queen Street and Symonds Street, and circulation changes on Albert Street, the experience for bus users is expected to improve considerably. It becomes faster to travel to, from and through the city centre, and trips become more reliable. Increasingly public transport trips become a more attractive option for city centre travel.

The transit malls make catching the bus in the city more legible and the waiting experience improves. People waiting for buses are no longer forced to wait in the same space as pedestrians trying to walk along the corridor, and the amenity of the waiting environment is significantly improved.

The construction of the City Rail Link is due to be complete by 2024. The stations will become major access points into the city centre and generate very high numbers of pedestrians. The recommended option enhances the public spaces surrounding the stations, creating safe and pleasant spaces for the growing number of people accessing rail at Aotea, Karangahape and Britomart stations:

- New public spaces and general traffic reductions throughout the Britomart Precinct
- Transit mall section on Customs Street enhances the quality of rail-bus connections at Britomart
- New public spaces and expanded pedestrian spaces around Karangahape station
- Vehicle restriction on Victoria Street between Elliot and Kitchener Street, creating new public space and improved amenity surrounding the station entrance.



Active Modes

As a pedestrian: the city centre becomes a place that is more pedestrian friendly and easier to get around by bike and scooter. The recommended programme transforms traffic dominated streets that felt unsafe and unwelcoming into high amenity public spaces. Footpaths are wider, providing more space to move and more opportunities to dwell, with space for seating and interaction with business colleagues and friends.

There will be less traffic noise and pollution with the greater pedestrian spaces and fewer cars. In the area of greatest pedestrian activity, Waihorotiu, Queen Street valley, all general traffic is removed. With the exception of service and delivery vehicles and public transport the space will be free of traffic noise and pollution altogether.

Journeys will be faster on foot. Smaller carriageways to cross and more priority for people will result in less delay at intersections.

People will feel and be safer. The reductions in traffic and more space and priority for pedestrians means that there are less conflicts and people are able to walk around the city and focus on where they are going and who they are with instead of being as concerned with keeping safe from conflicts with cars.

Examples of this are:

- Customs Street which currently is a barrier between the waterfront and Queen Street, becomes a transit mall with wide pavements that easily connects to other pedestrian spaces such as the Britomart Precinct, Te Komititanga, and Queen Street Transit Mall.
- Nelson & Hobson Street are currently high trafficked motorway style arterials. The recommended programme expands pavements significantly along these corridors and creates a high-amenity public space for the Hobson Ridge community.
- Symonds Street runs along the length of the University of Auckland campus and splits the campus in two. The recommended programme implements a transit mall along Symonds Street, which improves the safety of the campus and connects rather than separates the two halves of the campus.

As a cyclist: the city centre is now far more accessible, with a more complete cycle network. Cyclists will benefit from many of the benefits that will accrue to pedestrians. Cycling around the city is more attractive:

- With cycle infrastructure running through the university campuses (connected to downtown and Karangahape Road cycling infrastructure, as well as the wider Tamaki Makaurau network), cycling is now more accessible for university students, and connections improve for those on Karangahape Rd and in the downtown area.
- With potential northern cycling connections along Fanshawe, benefits from the connection project are now extended to a much larger number of people, and connections into the city centre from the North Shore are greatly improved.



Private Vehicles Users

The recommended option sections the city into a series of low traffic neighbourhoods. As this allows for the reallocation of space to public space, public transport and active modes in line with the investment objectives, it will create changes to general traffic trips making them potentially longer and more circuitous. This will happen gradually over time and drivers will have time to re-route, re-time and re-mode. It is expected that changes will be well-communicated in advance.

Drivers will be able to access, but not necessarily pass directly between zones or through the city centre on all the routes they currently can. The traffic circulation changes rely on Mayoral Drive, and the motorway to act as the 'through-traffic' corridors, and there are a number of routes available to allow travel between zones.

Drivers will be able to access all carparks and private properties that they currently can, but not necessarily from the same routes. Trips by car may require some adjustment over time as changes are made to current routes and trips may require more planning than they currently do. Car drivers will notice a greater level of priority being provided to buses, cyclists and pedestrians and may experience longer travel times as a result. It is expected that some drivers who could access their destinations by public transport, cycling or walking may choose to change modes and take up the opportunities provided.

These travel time increases are likely to apply mainly those passing across the city centre (as covered in Section 3.4.1 within the strategic case) and may lead to increased congestion for some general traffic trips while other trips will not be significantly impacted.



Loading & Servicing and Freight

It is a priority for the city centre for businesses to be able to operate easily and efficiently, in line with maintaining and improving the productivity and economic success of the city centre.

Service & Delivery: Delivery and service providers will find some changes to the access and circulation patterns in the city centre occur gradually over time. This means that drivers will need to adapt to these circulation changes, learning new routes to access businesses, and places for loading and unloading vehicles. Some interventions will mean that the times for accessing city centre areas will change and businesses will need to adapt to new schedules over time. There may also be changes to the way deliveries are made with potential for hubs and low/no emission delivery methods.

Service and delivery drivers are likely to have greater access to areas than general traffic drivers. It is possible that some streets can have access for deliveries and services at some or all times of the day.

Service and delivery drivers are expected to encounter less general traffic and based on the implementation of a service and loading strategy, reliable and adequate access to loading zones and areas for waiting and parking.

The recommended programme contains a range of additional measures specific to these users, to ensure the continuing function of city centre businesses and services. Kerbside and access management access for these users is prioritised and will be actively managed throughout the implementation of the full programme of works. This means that on-going communication between transport authorities and businesses will be critical. Within the programme, access management is a first priority in line with the criticality of these users, and the necessity to ensure that these businesses can operate.

Freight operators currently mainly rely on the motorway and the Strand – which are designated as strategic freight routes (as per Future Connect). For these corridors:

- There are no circulation changes proposed on the freight corridors within the recommended programme so travel distances will stay the same.
- Grafton Gully Boulevard implements freight priority along the Strand – significantly improving freight travel times along this section of the freight network.

As a result, only minor impacts are expected for freight trips – and the programme is not expected to lead to significant changes for freight operations.

The changes that Access for Everyone will make will reduce the capacity of the city centre to enable vehicular traffic and in particular cross-city movements. As a result, a Year 1 action is to develop a strategy for freight access, including servicing and loading. The expected outcome is that major freight routes, particularly to the port are protected and enhanced. Truck drivers may find, over time that movements through and across the city centre may take longer (as with general traffic) and some circulation routes may change. Changes are expected to occur gradually and be well-signalled in advance. Access to all buildings and destinations will be retained.



Residents

The city centre is not only a place of business but is a thriving local community. For the many people living in the city centre, the recommended option makes the city centre:

- A safer place, with lower numbers of crash incidents, deaths and serious injuries
- A healthier place, with higher quality air quality and lower noise levels
- A more attractive place, with more public space and improved amenity throughout.

The densest area of residents is along the Hobson Ridge. This neighbourhood is currently centred on Nelson and Hobson Street. These corridors are both five lanes wide, unidirectional arterial corridors. They are some of the lowest amenity corridors, pose a significant safety risk, and are a significant severance issue. The recommended option reallocates space along Nelson Street and Hobson Street from general traffic to pedestrians and create spaces that are safe, healthy and attractive for the people living there.

The Learning Quarter has a high density of residents, particularly at the southern end of Symonds Street and along Anzac Street. With low traffic neighbourhoods in place in the learning quarter, traffic volumes throughout the area are expected to decrease significantly. As a result, the surrounding air quality is expected to improve, noise levels decrease, the streets are expected to be safer, and have better amenity.

Access for these residents is also improved, with changes to Symonds Street making public transport trips faster and more reliable. New cycling infrastructure means that cycling is expected to be safer. More residents will be able to use micromobility to take trips to the shops, for recreation and health, or to travel to and from work/education.

A significant proportion of city centre residents are centred on Queen Street and Customs Street. In the recommended programme these two corridors become transit malls – with significantly improved urban realm and pedestrian spaces. The Waihoritū Valley can become a zero emissions area, resulting in a quieter place with good air quality. For residents here this creates a better sense of neighbourhood and quality of life.

Residents rely on services and deliveries as well as businesses. The effects and mitigations associated with servicing and loading are equally relevant to city centre residents.

Residents of the city centre who own and use a car may find that, like car drivers (noted above), routes available will change, requiring adjustments to current patterns.



Businesses and Employees

Critically, the success of the city centre relies on proximity or agglomeration – as covered in Section 6.2.4. Productive businesses rely on face-to-face connections, which are enabled by a dense and compact city centre with easy mobility.

City centre employees are concentrated in the north of the city centre. Getting to and from work is expected to be easier, less stressful and more enjoyable. Improvements to Queen Street, Customs Street, Symonds Street and Karangahape Road are expected to significantly improve access for city centre by bus. Wider pedestrian areas and less traffic lanes to cross will provide a better experience getting to and from buses. This will also apply to people going to and from work by train with better pedestrian areas around stations.

The programme further improves access to the area for employees better connecting with the wider cycling network with Fanshawe cycling infrastructure. It connects the city centre with the future northern cycle connection (and in extension the wider North Shore) as well as better connecting the employment areas to the west of the city centre to the wider cycling network.

Travel for employees becomes less stressful and businesses are able to offer better travel options for their employees.

The programme enables easy mobility, to make connecting with others within the city centre easier. Walking between meetings, visiting shops during work breaks, or remaining in the city centre for after work becomes far more attractive and creates a better quality of life for employees, improves attractiveness of businesses, as well as supports the profitability of local businesses.

During work hours, walking, cycling or scootering between buildings for meetings or to carry out business will be more reliable, easier and faster with more direct routes with less delay. This will also be safer with more businesses able to encourage employees to walk, cycle and scooter for work purposes.

Downtime within a working day is expected to be more enjoyable with improved urban realm for relaxing, meeting people and dining.

This is enabled by:

- The redistribution of traffic enabled creating low traffic streets and transit or pedestrian only streets, throughout the city centre, but particularly in the Waihorotiu Queen Street valley where there is the greatest density of employment.
- Traffic restrictions on Victoria Street and Albert Street (and resultant reduction in traffic volumes)
- An increase in the amount of public spaces – including widened pavements along major pedestrian thoroughfares and new pedestrian malls in the Britomart Precinct, Jean Batten Place and Victoria Street.

Businesses that rely on vehicle access will need to adapt as vehicle circulation changes throughout the city centre. Businesses will need to adapt to new access routes, places for loading and unloading vehicles are likely to change, and travel times to access businesses may increase. Some interventions will mean that the times for accessing city centre areas will change and businesses will need to adapt to new schedules over time. This is likely to impact retail and hospitality businesses most.



Visitors/ Leisure

The programme is expected to make the city centre and Tāmaki Makaurau as a whole more attractive by improving the amenity of the city centre and more legible and easy to navigate as a pedestrian.

The recommended option significantly increases the amount of high-quality public spaces (with an additional 33,000m² of public space). This increases the amount of space that can be used for social and cultural activities, are easy to walk along and feel like places that are enjoyable to spend time in. Examples of this include:

- Queen Street, which is the core of the city centre. As the central spine of the city, it is a socially and cultural hub and one of the main “landmarks” of the city. A significant amount of retail businesses are also located within the Queen Street valley. The recommended programme implements a transit mall on the corridor, with a complete removal of general traffic and creates a low emissions zone centred on the valley. There will be more space for pedestrians to linger in. With the exception of service and delivery vehicles and public transport, Queen Street becomes free of traffic noise and pollution.
- New public spaces around new City Rail Link stations – which are expected to generate very high numbers of pedestrians. This creates safe and pleasant spaces for the growing number of people accessing rail at Aotea, Karangahape and Britomart stations.
- New pedestrian malls within important retail zones including Britomart Precinct and Downtown East.

The recommended option enables the development of a city centre that is easy to access, with improved access for public transport and active modes.

- Transit malls on Symonds Street, Customs Street, Wellesley Street and Queen Street mean that taking public transport to the city is faster and more reliable.
- Journeys will be faster on foot, with smaller carriageways to cross and less delay at intersections. The ease of pedestrian movements is improved significantly, making exploring the city centre on foot easier and more attractive.
- With an expanded cycling network, and improved connections to the wider network, travel to/from and within the city centre for recreation becomes easier, safer and more attractive. With potential northern connection in future, Fanshawe Street cycle lanes creates an easy to follow connection between this attraction and the city centre.

The public transport system becomes more legible and easier for use. This is particularly important for visitors or those in the city for recreation/ leisure, as they are less likely to be as familiar with the city centre and may be visiting the city for the first time. Transit Malls make it clearer where to access public transport and to transfer between services. The recommended option improves the public spaces around rail stations, making these clearer 'landmarks' for people to orient themselves with.

With lower traffic volumes throughout the city the city becomes safer, with reduced deaths and serious injuries, and healthier, with higher air quality and lower noise levels.



Students

The city centre is an international centre for learning and innovation, being home to the University of Auckland, AUT University and other learning institutions with the majority of these students located within the Learning Quarter. The recommended option significantly improves the quality of access to the Learning Quarter:

- With a transit mall section on Symonds Street travelling to, from and through the Learning Quarter by bus becomes faster and more reliable.
- With reduced traffic volumes throughout the Quarter and the removal of traffic along Symonds Street Transit Mall, pedestrian travel times are expected to improve significantly, with less delay at intersections. Walking through the campuses between classes becomes faster and easier, as well as safer.
- The separated cycle infrastructure down the length of Symonds Street fills a significant gap within the city centre cycle network. As a result, cycling, scootering or skateboarding to and through university now feels safe and approachable and provides students with new and faster ways of travelling.
- With less cars travelling through the Learning Quarter travel around the campus easier, safer and more attractive.

Beyond students, the Learning Quarter is not only an important educational centre but also is a significant draw for employment.

12.6 Key Risks and Disbenefits

Implementing a circulation plan for the city centre has demonstrable benefits as described in this business case, however, as with any change, there are disbenefits to the experience enjoyed by some users and risks that might apply to stakeholders, project partners and funders.

12.6.1 Disbenefits to traffic

The Strategic Case (Section 6.2.1) establishes that general traffic is clearly the least efficient mode of transport in a space-constrained city centre environment. In a constrained environment, there are trade-offs with change and in this case, there is a likely disbenefit to traffic. While this disbenefit is significantly outweighed by the benefit to other, more efficient modes (refer Section 12.7 and Appendix I) these effects must be considered and in doing so, the make-up of the “traffic” in the city centre must also be considered as some elements of traffic are more essential and have less alternatives than others.

The proposed circulation plan penalises trips **through** the city centre the greatest and allows trips **to** the city centre (refer Section 10.4), albeit with some changes. As noted in Section 3.4.1, most of the traffic in the city centre is going to the centre, not through it.

There are residual disbenefits to car drivers of the programme. This is detailed in Appendix I which details and monetises these disbenefits so that they are accurately captured in the assessment of the programme. While these are outweighed by benefits to other users, there is a need to understand and mitigate these impacts. Forecasts suggest that in 2028 there will be 15% - 21% less cars in the city centre as a result of Access for Everyone. It is expected that additional assessment of traffic impacts will be required at all stages of the implementation of the programme.

Based on feedback from key stakeholders and understanding the city centre’s role as a place to live and do business (something supported by the City Centre Masterplan) there is a need to prioritise elements of the traffic stream that have fewer, if any options to change modes, including:

- Freight on key freight routes
- Deliveries
- Servicing (of residential and commercial activities)
- Mobility impaired access
- Taxi and ride hail services
- Emergency services

Mitigations are proposed, to prioritise these users and mitigate the impacts on general traffic of which form a fundamental part of the programme:

- Development of strategies to enable these high priority traffic activities to operate effectively and engagement with stakeholders with an interest in their performance. This should occur prior to significant changes to the circulation system in the city centre.
- Development of a Network Operating Plan and optimisation programme, including both state highway and local networks in a manner that supports the circulation and accessibility needs of the city centre as an early action. This may lead to physical and operational changes to improve the function of the network as changes are made through Access for Everyone.
- Travel Demand Management and increase in public transport options to cater for increased growth in mode shift.
- A staged, gradual delivery of changes in the circulation plan, supported by sound monitoring and analysis to enable the programme to be modified and optimised as it progresses on the basis of actual, observed outcomes.

- Detailed assessment of interventions in more detail as the programme is implemented and experience of earlier stages can inform assessment.

12.6.2 Stakeholder and community acceptance

The city centre is a complex environment with many highly engaged and informed stakeholders with significant interests in the form, function and performance of the city centre's streets. Without the broad support of the people who live, work, learn and run businesses in the city centre, achievement of the outcomes sought will be difficult.

In general, there is board support for the outcomes sought by the City Centre Masterplan (refer Section 5.3.1) and support for the changes to Queen Street in the Queen Street trial also have been well-received (Section 6.3.3). However, the recent experience with the Queen Street Project has highlighted the need for ongoing, quality engagement on the details of the programme and its delivery.

The programme responds to this in a proactive manner by making the following early actions in the programme, ahead of major implementation:

- Developing a governance structure to manage and prioritise actions in an ongoing way, involving all key partners in the programme.
- Forming an engagement workstream to manage conversations with key stakeholders in a quality and structured manner throughout the programme planning and delivery.
- Setting up a programme of monitoring and analysis workstream to provide quality, reliable information to support engagement with stakeholders to allow informed discussion and decision making.

12.6.3 Disruption in the city centre

The city centre has been subject to significant effects of transport and other civil construction activities in recent years with projects such as Quay Street and City Rail Link. While these projects have and will generate significant benefits to the city centre, there is a well-expressed desire to make improvements in a manner that enables the city centre to continue to function effectively in the short term, while changes are made.

There is a risk that implementing Access for Everyone will create further disruption to the city centre that is unacceptable to its residents, businesses, workers and visitors. This risk is acknowledged in the programme and its mitigation forms a core part of the programme, including the same actions noted in 12.6.2 as well as:

- Early interventions being designed to leverage existing activities such as City Rail Link and currently proposed activities like Connected Communities to gain more outcomes from existing disruption and reduce the need for greater disruption later.
- Sequencing the proposed additional changes identified in the programme over time to minimise the intensity of disruption. This, noting the management structure should allow changes to this sequencing based on learnings from early activities.

12.6.4 Covid-19 related risks

Appendix I contains a paper outlining the potential impacts of the Covid-19 pandemic on the programme and the way the programme deals with this risk.

This paper notes that the outcomes of the pandemic are at this time unknown as Aotearoa is still dealing with the issue. The paper also notes that Tāmaki Makaurau is a major economic and population centre in Aotearoa and this is unlikely to change.

Although there is confidence that there is a short-term economic shock of significant magnitude, at this point there would appear to be insufficient evidence to confidently predict whether the macro level economic and

social effects of Covid-19 will persist long enough to materially impact on the timing of key programme decisions.

The proposed mitigation to this risk is essentially in the timing of major investment. Based on the programme, the first significant investment decision is not anticipated to take place until 2024/2025, with the greater investments after that. The funding requirement in the first two years is in establishment, governance and some design and investigation work. This will enable major investment decisions to be made with better, if not full knowledge of the impacts of Covid-19.

Given the uncertainty and the well-documented importance of the city centre, there is a risk in adopting a slower approach to planning and readiness for Access for Everyone as should the recovery be faster or as expected, there is the potential that significant benefits cannot be realised, or are delayed.

With appropriate monitoring, governance and ongoing re-prioritisation of the programme, there is the potential for the programme to adapt to the eventual outcomes of the Covid-19 economic shock. As a result, the programme's focus on governance, monitoring, engagement and leveraging existing work programmes allows the implications of Covid-19 to be determined when there is greater confidence in the information relating to the effects on the city centre.

12.7 Economic Analysis of the Recommended Programme

The impacts of each component of the circulation plan have been evaluated independently and then combined for the programme assessment. All the interventions are expected to affect traffic movements, while some of them include other improvements such as for public transport or pedestrian realm features.

The do minimum includes projects that are currently in construction or are viewed as likely to occur in the next ten years, including the City Rail Link, low traffic Queen Street and Te Hā Noa Victoria Street Linear Park. The preferred option assessed includes a suite of thirteen interventions across the city centre, that restrict traffic movements, optimise traffic signals and where possible, widen footpaths and provide amenity improvements for pedestrians.

The total capital cost of the programme is \$424m, which is expected to be mostly incurred between 2025 and 2030. This cost (used for economic analysis purposes) includes the costs of all the interventions identified in the preferred programme. The costs of some of these interventions are excluded from the Financial Case, as it is assumed these will be funded as part of separate programmes/workstreams. Section 13 summarises the Financial Case and the assumptions on which projects are included/excluded for funding purposes.

For the purposes of this economic analysis, annual maintenance costs for all interventions are estimated to total \$8.5m per year and renewal costs are estimated to be \$170m every 30 years. The economic analysis covers the physical costs of the infrastructure and the resultant renewal and maintenance costs as standard. The operational costs as included in the financial case (Section 13) covers the staff costs of new workstreams, and have not been included in the economics analysis.

Economic impacts of the programme are expected to provide travel time benefits to public transport users and pedestrians, safety benefits, emissions benefits and pedestrian realm and agglomeration benefits, as well as disbenefits to private vehicle users. The biggest benefit is expected to be the pedestrian realm benefits (44%) and agglomeration benefits (21%) while the road user impacts are expected to be around -34% of the total benefit. Several non-monetised benefits have also been identified despite not being monetised within this assessment.

The present value results of the economic assessment are included in Table 12-6. The benefit-cost ratio is estimated to be 2.8 with a first-year rate of return of 0.03 (3%). The benefit-cost ratio is not sensitive to assumptions around demand elasticities (to inform mode shift estimates) or staging of the interventions; however, it is sensitive to benefit assumptions such as the average delay to cars travelling to or from the city centre and the scale of pedestrian realm benefits. Most assumptions that the results are sensitive to should

be able to be refined in future stages of the programme, through activities such as data collection (eg of pedestrian demands) and updated guidance from Waka Kotahi.

These results indicate that the programme is worthy of further investigation from an economic perspective and is likely to yield a strong benefit-cost ratio. Each of the benefits should be investigated and affirmed in subsequent stages of this programme. It is also important to note that the programme proposes a traffic circulation plan which involves a suite of interventions working together to achieve an important outcome. Some individual interventions may appear to have stronger economic positioning than others, however, the benefit of the programme is in the network effects of all related interventions.

A detailed paper outlining the economic analysis is included in Appendix J.

Table 12-6: Summary of economic analysis

Attribute	Present value (\$millions)
Costs	
Construction costs	\$343
Maintenance costs	\$123
Renewal costs	\$40
Total project costs	\$507
Benefits	
Pedestrian realm benefits	\$947
Pedestrian travel time benefits	\$187
Public transport travel time benefits	\$197
Public transport reliability benefits	\$188
Safety benefit	\$140
Road user travel time benefits	-\$730
Emission reduction benefits (cars)	\$54
Agglomeration benefits	\$444
Total project benefits	\$1,429
Net benefits	
Net benefits (\$millions)	\$923
Benefit-cost ratio	2.8
First year rate of return	0.03

12.7.1 Sensitivity Analysis

Sensitivity analysis has been carried out to test how sensitive the assessed benefits and costs are to change. ran a range of sensitivity tests to understand the implications of making alternative assumptions in the demand estimates, benefit values and staging of options. These are presented in Table 12-7 and some conclusions we can make from these sensitivity tests are:

- Economic parameters: the discount rate and evaluation period are important assumptions in the economics and materially affect the results. The base results for Access for Everyone rely on the default parameters from the MBCM (of 4% and 40 years).
- Demand sensitivities: the economic assessment is insensitive to the demand elasticity assumptions, so it is probably appropriate to continue using the MBCM proposed values in future stages of economic assessments for Access for Everyone projects.
- Benefit sensitivities: the results are sensitive to most input assumptions on individual benefits, so it will be important to refine these assumptions in future assessments. In particular:
 - Extra delays to cars: ideally traffic models would inform these assumptions in the future.
 - Shadow price of carbon: this is insensitive, and the high shadow price should continue to be used.

- Pedestrian trips (average trips per day): this affects the pedestrian demand estimates which ultimately has an impact on the results of the economics. Ideally future stages of Access for Everyone projects would include a data collection phase to provide more accurate pedestrian demand estimates.
- Pedestrian realm benefit: this is a big proportion of the total benefits and therefore testing reduced benefits has a big impact on the results. Waka Kotahi should provide an update on when updated New Zealand specific values will be available, to provide more certainty on the scale of benefit for this improvement.
- Agglomeration benefit: agglomeration is an important benefit and should be included in the economic assessment. The benefit-cost ratio is not very sensitive to testing of the elasticity parameter.
- Staging assumptions: the benefit-cost ratio is insensitive to assumptions around staging of each intervention. Regardless, staging should always be informed by the project overall, rather than because of implications on the economic assessment.

In summary, the economics is most sensitive to inputs and assumptions around the benefit calculations rather than the demand elasticities or staging of interventions. Several of these sensitive parameters could be estimated with more certainty in future stages of economics, if data collection and guidance are updated.

The outputs for each sensitivity test are documented in Table 12-7.

Table 12-7: Sensitivity tests

Sensitivity test	Present Value Benefit (\$m)	Present Value Cost (\$m)	Benefit-cost ratio
Base results	\$1,429	\$507	2.8
Economic parameters			
Discount rate = 6%, Evaluation period = 30 years	\$800	\$386	2.1
Discount rate = 3%, Evaluation period = 60 years	\$2,456	\$607	4.0
Demand sensitivities			
Public transport direct elasticity = -0.1 Car trips direct elasticity = -0.3 Pedestrian uplift factor = 2%	\$1,430	\$507	2.8
Public transport direct elasticity = -0.7 Car trips direct elasticity = -0.8 Pedestrian uplift factor = 5%	\$1,434	\$507	2.8
Cost and benefit sensitivities			
High cost estimate	\$1,429	\$575	2.5
Average extra travel time for cars = 1.5 min	\$1,672	\$507	3.3
Average extra travel time for cars = 3 min	\$1,186	\$507	2.3
Low shadow price value of CO2 emissions	\$1,413	\$507	2.8
Pedestrian trips (average trips per day): 2.5	\$1,242	\$507	2.5
Pedestrian trips (average trips per day): 3.5	\$1,616	\$507	3.2
Pedestrian realm: reduce benefit by 20%	\$1,240	\$507	2.4
Pedestrian realm: value biggest benefit only	\$1,112	\$507	2.2
Pedestrian realm: exclude reduced traffic volumes	\$847	\$507	1.7
Agglomeration: MRCagney's high elasticity	\$1,479	\$507	2.9
Agglomeration: MRCagney's low elasticity	\$1,343	\$507	2.7
Agglomeration: None	\$985	\$507	1.9
Staging assumptions			
Exclude Lower Hobson Street flyover removal and Symonds Street interventions	\$1,083	\$423	2.6
Start construction on all interventions in 2025	\$1,523	\$546	2.8
Start construction on all interventions in 2032	\$1,124	\$372	3.0

12.7.2 Reconfirm Investment Profile

Based on these results, the investment profile has been re-assessed and no changes identified.

Table 12-8: Reconfirmation of Investment Profile

Factor	Rating
Government Policy Statement alignment	<i>VERY HIGH</i>
Efficiency	<i>LOW</i>
Scheduling	<i>HIGH</i>
Priority order	<i>2</i>
Explain any variances from the existing NLTP priority order <i>No variance.</i>	

FINANCIAL CASE

13 Outlining the Financial Case

The purpose of this section is to set out the programme financial implications of the preferred way forward.

13.1 Programme Cost

Based on current estimates, the anticipated cash flows for the investment proposed over its intended life span are set out in Table 13-3. A detailed cost estimate with assumptions is included in Appendix C.

13.1.1 Full Preferred Programme Inclusions and Exclusions

Table 13-1 shows the assumptions in relation to the inclusions in the preferred programme.

The Access for Everyone business case serves a range of purposes. The business case is a strategy for the transport elements of the City Centre Masterplan and as a result includes all activities identified to give effect to the preferred option (refer Section 12). It also is a business case to create a funding pathway for interventions that are not already funded or do not have active pathways or points of entry to future funding decisions.

This means the interventions fall into the following categories for funding:

- Operational costs funded and internalised to AT, Council and Waka Kotahi
- Activities that involve use of AT's, Council's and Waka Kotahi's existing operational budgets for studies and investigations
- Interventions that require redirection or changes to existing ongoing operational activities, but no additional funding
- Interventions that require additional capex to augment current or proposed capital projects (for example City Rail Link)
- Interventions that require existing projects to amend their scope and funding
- Workstreams that may generate additional projects (for example a Network Operating Plan)
- New interventions that require capital funding.

By way of clarity, it is assumed in this financial case that there is a need for Queen Street to be funded. A decision on the route and form of the Auckland Light Rail project may mean the Queen Street component is funded through that project. This is not known at the time of writing. Further, the costs associated with City Rail Link are additional works to augment the City Rail Link work that are currently planned and extend treatments to give effect to Access for Everyone.

Table 13-1: Assumed funding for interventions

Intervention	Delivery Method	Funding pathway or Point of Entry
Governance and project office	Auckland Transport internal resource	Auckland Transport internalised cost
Engagement management	Auckland Transport internal resource	Auckland Transport internalised cost
Monitoring and research	Auckland Transport internal resource	Auckland Transport internalised cost
Strategy development	Auckland Transport managed – consulting/internal	Auckland Transport opex. Existing budgets
Network Operating Plan (NOP)	Waka Kotahi/Auckland Transport internal	Auckland Transport/Waka Kotahi opex Existing budgets. Note that the resulting interventions from a NOP have not been costed.
Leveraged outcomes		
City Rail Link works – Albert Street, Karangahape Road, Britomart	City Rail Link works integration	Additional capex in Access for Everyone programme to augment City Rail Link works
Victoria Street	Te Hā Noa Victoria Street Linear Park project	Additional capex in Access for Everyone programme to augment Te Hā Noa Victoria Street Linear Park works
Symonds Street/Anzac Avenue/Learning Quarter	Connected Communities Project	Connected Communities project
New projects		
Albert Street circulation	Access for Everyone programme	New capex in Access for Everyone programme
Federal Street circulation	Access for Everyone programme	New capex in Access for Everyone programme
Downtown East circulation	Access for Everyone programme	New capex in Access for Everyone programme
Grafton Gully Boulevard	Access for Everyone programme	New capex in Access for Everyone programme
Customs Street transit mall	City Centre Bus Programme	New capex in Access for Everyone programme
Nelson Street	Access for Everyone programme	New capex in Access for Everyone programme
Hobson Street	Access for Everyone programme	New capex in Access for Everyone programme
Quay Street – Lower Hobson Street	Downtown Carpark development	Financing/funding via Downtown Carpark development
Wynyard Quarter circulation	Access for Everyone programme	New capex in Access for Everyone programme
Northern cycle connection	AT/Waka Kotahi cycle programme	Cycle programme new capex

13.1.2 Capital Projects

With respect to the capital interventions that are included in the programme, cost estimates are included in Appendix C.

As outlined in this business case, the initial, high priority investments are in governance, engagement, monitoring and optimisation (all opex) followed by initial capital investment leveraging existing projects.

Another consideration is that as outlined throughout this business case, the capital investments for Access for Everyone could be delivered in a number of ways. The scopes and extents of the capital investments assumed are specific but are likely to vary once progressed through more detailed assessments and programming with related city centre workstreams.

The recommendation is to implement the identified capital investments in a staged manner, while assessing the effectiveness, scope and timing of the interventions as this occurs.

The preferred programme and as a result, the financial case and economic analysis assumes a most likely sequencing, timing and scope/extent based on knowledge at this time. Within each capital project, there exist ranges of outcomes. For example, a project could be delivered to a very high specification and level of finish such as the recent Quay Street upgrade. Alternatively, while realising lesser benefits, the circulation changes and many outcomes in the same locations could be achieved through lower cost implementation.

To this end, a “high” and a “low” cost outcome was assessed for each capital intervention to demonstrate the range of potential outcomes for the programme. This was done in the following way:

- The “base” estimate (Appendix C) for each option is the “high” cost outcome.
- A specific “low” cost estimate was developed for Queen Street and Downtown West interventions (included in Appendix C).
- As there is commonality in the assumed work in each case (differing mainly in extent), the percentage reduction achieved against the assumed “high” cost outcome for Queen Street and Downtown West interventions was then applied to the other interventions to reflect a “low” cost outcome for each.

Therefore, both the “high” and “low” cost estimates are P50.

The “low” cost estimates have a scope that typically involves:

- Demolition of exiting kerbs,
- Break-up of existing pavement,
- New kerb and channel – usually narrowing the existing carriageway and reallocation of space to pedestrians and installation to give effect to circulation changes
- New footpaths and carriageways to match existing

Table 13-2 shows the “high” and “low” cost estimates for each intervention. The table also shows which of the estimates (and relevant benefit assessment) were used for the purposes of economic analysis and the core of the financial case.

Of note, Queen Street is included in the programme as a “high” estimate. Should the Auckland Light Rail project select a route on Queen Street, it is likely that the cost attributable to this programme will be significantly less.

Table 13-2: High and low-cost estimates, P50 (shading denotes the estimate used in Financial Case and economic analysis)

Intervention	Estimate - High	Estimate - low	Notes
Queen Street transit mall	\$68,554,001.00	\$13,983,000.00	Assumed full implementation
Downtown east' circulation changes	\$15,705,000.00	\$3,141,000.00	Assumed full implementation
Britomart circulation changes	\$96,773,000.00	\$19,354,600.00	Circulation changes only as developers assumed to have delivered most streetscapes
Downtown west' circulation changes	\$83,003,000.00	\$16,600,600.00	City Rail Link reinstatement matched, resulting in less need for major investment.
Victoria Street circulation changes	\$31,268,001.00	\$6,253,600.20	Minor changes required due to Te Hā Noa Victoria Street Linear Park project
Customs Street transit mall	\$30,334,000.00	\$6,066,800.00	Assumed full implementation
Symonds Street, Anzac Ave, and Learning Quarter circulation changes.	\$36,563,000.00	\$7,312,600.00	Assumed full implementation Separate funding pathway (Connected Communities)
Karangahape Road – Pitt Street station-area circulation changes.	\$63,703,000.00	\$12,740,600.00	Assumed full implementation
Quay Street - Lower Hobson Street	\$31,869,000.00	\$6,373,800.00	Assumed full implementation Separate funding pathway (Downtown Carpark development)
Hobson Street and Nelson Street circulation changes	\$54,480,000.00	\$10,896.00	Assumed full implementation
Wynyard Quarter – Viaduct circulation changes	\$35,804,000.00	\$7,160,800.00	High quality streetscapes existing – changes to circulation only.
SH16 / Strand Boulevard	\$73,329,000.00	\$14,665,800.00	Assumed full implementation

Table 13-3 shows the full P50 expected costs of the Access for Everyone programme using the abovementioned assumptions. This table does not include the capex items that will assumedly be funded through other programmes. The table does include the expected opex costs for completeness and includes the expected revenue to cover these from AT's usual sources, it has therefore been included in Table 13-3 as extra revenue. As a result, the extra capital required relates to the proposed additional capex.

The total indicative funding requirement for the programme is \$386.2 million over ten years (P50). The P95 cost of the programme is \$426.6 million. Appendix K contains a detailed breakdown of the P50 and P95 cashflows, including operating expenditure and capital expenditure.



\$ millions (P50)	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	Total
Preferred way forward:										
Capital	2.9	9.0	79.7	27.9	68.0	62.0	53.1	53.1	0.0	355.5
Operating	1.2	1.2	1.2	2.9	2.9	3.4	4.7	4.7	8.4	30.7
Total	4.1	10.2	80.9	30.8	70.9	65.3	57.8	57.8	8.4	386.2
Funded by:										
Existing revenue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Existing capital	2.0	3.0	0.0	0.0	2.0	23.0	0.0	0.0	0.0	30.0
Extra revenue	1.2	1.2	1.2	2.9	2.9	3.4	4.7	4.7	8.4	30.7
Extra capital	0.9	6.0	79.7	27.9	66.0	39.0	53.1	53.1	0.0	325.5
Total	4.1	10.2	80.9	30.8	70.9	65.3	57.8	57.8	8.4	386.2

Table 13-3: Summary of costs and cashflow

The following assumptions have been made in determining these initial estimates:

- The cashflows have been projected across a 9-year period, combining the expected 8-year timeframe for development, pre-implementation and implementation of the various projects, and an additional year for post-programme administration.
- Scope assumptions are detailed in the Short List Report (Appendix G)
- Investigation and planning costs are assumed to be 3% of the total costs for each project
- Design costs are assumed to be 9.5% of the total costs for each project
- Delivery (construction) costs are assumed to make up the remaining 87.5% of the total costs for each project
- Operating expenditure throughout the initial 9-year timeframe consists of internal Auckland Transport staff costs, and consequential opex (maintenance costs) which are estimated at 2%pa of construction costs for each project, effective from the expected project completion.

Appendix K contains a detailed breakdown of the P50 and P95 cashflows, including operating expenditure and capital expenditure.

13.2 Funding Risks

At a programme business case level there are usually uncertainties with respect to costs, including:

- Estimates based on high level quantities and assumed scope and extents of work
- Assumed extents and interaction with related projects is an uncertainty that could influence costs both upward and downward.

It is considered that the risks in relation to the rates used in the estimates is relatively low in the context of a programme business case as the type of work assumed (streetscapes, street reconstruction) has been carried out very recently and is currently under way in the city centre and the estimates were able to rely on highly relevant, up to date “real” costs.

The key risk to costs in this programme business case is in the extents and quantities of work included in each intervention and the extent to which scopes are amalgamated or changed in the future. This can be refined in more detailed phases of work. The proposed governance structure and management process recommended in this business case is intended to manage this risk.

There are also risks (Appendix E) that could influence costs and funding. While not always labelled funding or finance risks, there are potential implications on funding of several risks:

- There is a risk that there is insufficient funds to complete the work as the envelope is outside current Regional Land Transport Plan (RLTP) budgets.
- There are risks in relation to inter-project integration which could affect costs and cashflow requirements.
- The programme is multi-agency and includes Auckland Council and Waka Kotahi. This adds risk to alignment of funding and decision making, including conflict with regional objectives.
- There is a risk that major private sector developments could alter the timing requirements for funding from that forecast.
- There are significant stakeholder-related risks. This could result in programme delays and changes in funding requirements.

COMMERCIAL CASE

14 Outlining the Commercial Case

14.1 Introduction

The purpose of the Access for Everyone PBC is to develop a programme of improvements to enhance the city centre's movement network and give effect to the outcomes sought in the City Centre Masterplan.

This business case has developed a programme that aligns to Government strategies, stakeholder requirements and the Programme's investment objectives to enhance the city centre's movement network and give effect to the outcomes sought in the City Centre Masterplan. The proposed improvements can be summarised into:

- Governance and management
- Developing strategies and legal mechanisms
- Modifying existing workstreams
- Developing new workstreams.

This Commercial Case addresses the commercial deliverability of the preferred programme with an emphasis on the first three years of the programme, recognising that the approach to procurement can evolve as the programme is implemented. The Commercial Case has been written to cover work that may be carried out by AT, Waka Kotahi and Auckland Council.

The Commercial Case covers the deliverability of the programme and is made up of the following parts:

- Delivery risks
- Procurement strategy.

The staging methodology for the preferred options is discussed.

The Commercial Case relates closely to the Management Case. The governance and project management structures set out in the Management Case provide a framework for managing the risks and uncertainties described here.

14.2 Sequencing of Actions

The suggested sequencing of the tasks to implement the programme is detailed in Section 12. This can be summarised in terms of procurement activities as:

- Obtaining human resources for supporting governance, engagement and monitoring activities
- Securing survey and information gathering services
- Procurement of professional services for strategy, policy and legal mechanisms
- Procurement of professional services for business cases, advice, consenting and designs
- Procurement of physical works.

14.3 Procurement Strategy

14.3.1 Proposed Procurement Approach

The proposed approach to procurement of the various services is described below, noting that greater certainty is applied to actions expected in the early period of the programme.

Human resources for governance, engagement and monitoring

It is expected that this will be led by Auckland Transport and resources procured through reallocation of internal staff, secondments or hiring of contract staff through AT's usual staffing mechanisms.

Survey and information gathering and management

Auckland Transport, Waka Kotahi and Auckland Council collect data on transport outcomes as part of their regular business activities and it is expected that there will be a requirement pursuant to the Benefit Realisation Plan to monitor the effectiveness of the programme. The Management Case for this business case also suggests collecting a wider suite of data to manage risk and ensure that key stakeholders are able to provide informed input to the programme.

These activities are expected to be delivered as part AT, Waka Kotahi and Auckland Council's monitoring activities. Any activities that are bespoke to this programme and are required to be procured separately can be procured through AT's standard professional service procurement procedures.

Professional services for strategy, business cases, design and consenting

It is expected that Auckland Transport will lead these activities. Auckland Transport has procedures for the procurement of professional services according to the relevant Procurement Manual/Procedures. This provides for:

- The use of existing panels and supplier agreements
- Direct commissioning of suppliers
- Limited competitive models
- Open competitive models

It is expected that the appropriate mechanism will be determined by Auckland Transport (or relevant agency) at the time.

In some cases, particularly when leveraging an existing or concurrent project, the procurement model may also leverage from the model adopted for that project. Specific examples include:

- The opportunity to engage professional services and construction for City Rail Link enables works through City Rail Link Limited's existing models.
- The opportunity to vary the scope of existing or future contracts in the Connected Communities Programme.
- The opportunity to vary the scope of existing or future contracts in relation to the Te Hā Noa Victoria Street Linear Park project

14.4 Potential for Risk Sharing

14.4.1 Risk and Opportunities Register

A risk register (Appendix E) has been produced for the programme. The register is a live document and should be maintained and updated throughout the life of the projects.

The register identifies risks and opportunities at the programme level (strategic risks) and project level; outlines cause and impact (consequence); notes current controls and proposed treatments; and assesses probability, qualitative threat and opportunity level, and potential cost impact.

The key strategic risks identified in the risk register are:

- **Funding:** There is a threat that the funding allocated to the Project is not to the level required and / or is not allocated as per the proposed delivery programme.
- **Misalignment between projects:** There is a risk that projects within the city centre are not aligned in terms of scope and programme causing operational problems and loss of support through ongoing disruption.
- **Support of partners and stakeholders:** There is a risk that key stakeholders and partners do not support the programme due to poor engagement, buy-in and the programme not addressing critical issues.
- **Effectiveness:** There is a risk that the outcomes sought from the programme are not realised, or result in adverse effects on access and mobility for some groups.

14.4.2 Opportunities for Risk Sharing Through Procurement

Programme Management

The proposed governance, model proposed in this business case is primarily a response to the key risks identified. Many of the key risks are specific to the city centre and relate to:

- Conflict with the views and needs of stakeholders, landowners and interest groups
- Misalignment between projects within the city centre
- Misalignment within and between partner agencies resulting in misaligned delivery and outcomes

The proposed governance, model will allow for a collective and holistic understanding of risk and the development of strategies to mitigate or manage risk through, for example:

- Alignment on prioritisation and timing of work and procurement
- Joint procurement and delivery of services
- An appropriate allocation of risk to providers based on the joint risk profile of the public sector

Sequenced Delivery

The preferred programme proposes a risk-led delivery approach which envisages the development of “enabling” strategies and leveraging existing workstreams and projects prior to commencement of new activities in the city centre. This strategy in itself is an important risk allocation mechanism. In terms of procurement, the engagement of professional services to develop enabling strategies, engagement and communications support and monitoring and research is a means of reducing the risk likely to apply to later, more impactful interventions.

MANAGEMENT CASE

15 Overview of the Management Case

15.1 Overview of the Management Case

15.1.1 Importance of the Management Case

As outlined in Section 12, foremost among the recommendations of the Access for Everyone PBC is that a bespoke governance structure be established. Many of the proposed interventions (in terms of physical interventions or operational matters) are already underway or planned and most can be considered relatively low in standalone complexity and risk from a technical perspective. However, key risks lie in the co-ordination of scope and sequencing and maintaining the support of partners and stakeholders. Additionally, some components are adjustments to ongoing operations or policy settings, so are not suited to being run by a project governance set up for physical works.

Access for Everyone is – in essence – an outcome realised by good co-ordination and common purpose among a range of partners and support of key stakeholders. As a result, the governance structure is essential to:

- Realise the benefits of Access for Everyone
- Manage the key risks
- Maintain and enhance support of key stakeholders
- Provide certainty for planning and project delivery
- Ensure ongoing operations and policies support the new physical works

15.1.2 General

This Management Case addresses the delivery roles and governance approach for Access for Everyone. The Management Case is made up of the following parts:

- Delivery and decision-making roles
- Governance arrangements, including supporting agreements and risk management and assurance framework
- Integration with related workstreams
- Project evolution and Investment Management
- Benefits realisation plan
- Next steps to address key risks
- Opportunities.

15.1.3 Detailed Governance Being Developed

It is noted that at the time of writing this PBC, the Auckland Transport leadership is actively developing a new governance structure to better support the implementation of multiple projects and programmes to achieve strategic outcomes, and there is the opportunity to commence this approach in the city centre context. As this work is still in progress, this section of the PBC sets out the necessary principles of the governance structure and its role in delivering the benefits and managing the risks of Access for Everyone, but does not specify the details of the governance structure, except insofar as the intent is confirmed. Whilst the emerging approach is an Auckland Transport initiative, it is expected to be able to be adapted over time to include Auckland Council and Waka Kotahi elements.

15.1.4 A Multi-Agency Leadership

Access for Everyone is an outcome that requires the integration of a number of organisations and stakeholders and involves a number of varied workstreams. The primary “owners” of Access for Everyone’s outcomes in the city centre are those responsible for, in partnership influencing, delivering, managing and funding the transport system and the public realm:

- Auckland Council
- Auckland Transport
- Mana whenua
- Waka Kotahi

As noted above however, the way forward is unlikely to involve a single set of governance consisting of each of these organisations. Instead it is expected that physical works may involve one set of governance (perhaps with several layers, to deal with varying levels of project complexity) and operational or policy matters may have a different set – though there will need to be coherent communication and co-ordination between the governance groups, possibly with overlapping membership.

15.1.5 Importance of Key Stakeholders

Given the critical role of the city centre as a place of business, residence, education, entertainment, tourism and leisure, the role of stakeholders is considered to be elevated above that typical of many transport projects. This is reflected in current governance and engagement forums, such as the functions of the Auckland City Centre Advisory Board, and active involvement with groups such as Heart of the City (business association). This Management Case acknowledges the complexity of interests and the importance of key city centre stakeholders and proposes a structure that shows stakeholders how they can be involved in elements of the governance framework.

15.1.6 Responding to the Uniqueness of the City Centre

The city centre is unique in Aotearoa in its scale and density of activity and resulting access and mobility needs. It is also unique in the choices of travel options available, with high densities of origins and destinations within walking distance, as well as cycle networks, railways, bus lanes and potentially light rail. In this respect, the potential responses to changes in the transport network design in the city centre may not be typical to those within most urban areas. The Management Case supports the Access for Everyone programme sequencing which involves leading with:

- New management plans for servicing, loading, mobility access and parking (amongst other functional areas)
- Stakeholder engagement and communications

- Trials for new interventions ahead of permanent implementation
- Working with committed and planned projects or programmes to deliver amended outcomes that better align with Access for Everyone outcomes

The Management Case does this by establishing processes to monitor and analyse changes in travel, network performance and effects on city centre people and businesses as improvements are made and trials implemented, then use this information to inform the subsequent stages of the programme. This is an important step in optimising the benefits of the programme and managing risks.

15.1.7 Acknowledging the Complexity of the Programme

Access for Everyone is both an outcome for access and mobility that delivers the sort of city centre Tamaki Makaurau desires and a means of co-ordinating a wide range of initiatives that will give effect to this outcome. Many activities are underway or ongoing, some are planned, and others are not yet started or scoped. In an accessibility sense, the city centre sits at the core of a number of transport networks making up all modes in Tamaki Makaurau, which means the movement network in the city centre will influence and be influenced by decisions made on a range of workstreams and projects.

This has the potential to create a very complex environment for decision making. This Management Case responds to this need by creating:

- A suite of outcomes that should be achieved as guidance or reference points for decision making
- A tiered structure where simple decisions can be made early and complex ones elevated
- A suite of reference groups to review material and advise on decisions
- Structured engagement with stakeholders across all projects, programmes and workstreams
- Regular reviews of the strategy and subsequent stages based on observed performance of the strategy in practice

15.1.8 Recognising the Need to Evolve

This Management Case establishes an initial structure that leverages existing frameworks to the extent possible to enable early progress on high priority actions, in particular defining and implementing management plans for servicing, loading, mobility access and parking, as well as establishing engagement and communications processes.

As the programme is delivered and evolves over time, it is anticipated that the delivery model may also evolve to best meet the needs of the programme. Periodic reviews are proposed to achieve this.

15.2 Programme Management Strategy and Framework

As an outcome and implementation framework under which a number of agencies will deliver projects of a range of types, the management of specific activities is expected to be carried out in accordance with the project management methodologies of each of the partner agencies (noting the cross-agency nature of some elements). The Access for Everyone programme could include activities including:

- Policy and strategy development
- Revised legal mechanisms for the operation and management of streets
- Network operational changes in local roads
- Network operational changes in state highways
- Transport service planning and procurement

- Public realm works
- Operation of public assets and facilities (for example car parks)
- Works in the local road corridor
- Works in state highway corridors

These activities are generally the responsibility of Auckland Council, Auckland Transport and Waka Kotahi. As outlined in Section 11 the individual activities proposed in the Access for Everyone suite of initiatives are not generally of a scale or complexity on their own to warrant significant departures from standard organisational practice at a project level. In terms of physical works, proposals are not unlike a number of projects recently delivered in the city centre. It is anticipated that partner agencies will deliver these initiatives pursuant to their standards and procedures, noting that Auckland Transport is currently investigating a new approach to managing complex and overlapping initiatives (which will be developed shortly after the completion of this PBC).

In the case of legal, service procurement and network operational initiatives, these are typically the specific responsibility of a particular agency and processes governed by specific legislation but can be better co-ordinated and given greater oversight.

The additional complexity in the city centre with significant overlaps and interdependencies between projects and outcomes, along with the specific outcomes and benefits sought through Access for Everyone means that the governance arrangements established for Access for Everyone will be influential in the following aspects of the project cycle:

- Timing and prioritisation
- Scope, design and proposed outcomes
- Engagement planning and implementation
- Post-implementation monitoring

15.3 Governance Arrangements

The principles of the proposed governance arrangements for the programme are set out below. These will be reviewed and may develop further following input from specialist advisors and as the programme progresses. The governance arrangements for Access for Everyone must support the following:

- Embed the outcomes and benefits sought by the Access for Everyone programme into the decision-making process
- Enable coordination and joint decision-making on common interests among the programme partners
- Enable key stakeholders to have some sort of involvement in decision making and influence the ongoing development of the programme
- Enable monitoring and learning from changes implemented to be collected and used to inform ongoing scoping, planning and design.
- Provide a point of escalation for risk that cannot be managed or mitigated at the component level
- Provide efficient and engaged oversight on behalf of each organisation's corporate governance
- Provide an approval pathway where programme partners' board or committee approvals are required (i.e. decisions above delegations)
- Provide an assurance pathway to the programme partners' boards or committees
- Provide governance-level coordination with interfacing projects.

Attributes of the proposed structure include:

- **A Heads of Agreement** signed by partners that defines the mandate of the Access for Everyone governance structure and those empowered within it to give effect to the outcomes sought through Access for Everyone.
- **A Project Control Group** made up of senior representatives of partners that has responsibility for delivering the benefits of the programme (noting that Auckland Transport is undertaking investigations currently which may create a bespoke governance arrangement).
- **A Programme Director** that reports to the PCG and has overall responsibility for Access for Everyone
- **A Communications Director** that is responsible for managing Reference Groups, stakeholder engagement and communications.
- **Stakeholder Reference Group(s)** made up of key stakeholders that have an advisory role in decisions in the city centre.
- **A Technical Reference Group** or groups made up of leading experts from partners that will directly engage with projects and provide direction on planning, design, scope and direction. This group is a filtering layer that will engage directly with Reference Groups and escalate issues to the PCG as appropriate.
- **Monitoring and analysis workstreams** to collect data on key indicators and report findings to allow ongoing improvement and mitigation of effects on people and business.

The organisational structure is under development by Auckland Transport at the time of writing this business case.

15.4 Programme Reporting Arrangements

It is intended that the Access for Everyone programme will evolve and learn from its implementation over time. The use of trials and implementation of a comprehensive monitoring and reporting programme, along with reference groups, is proposed to enable ongoing adjustment to the programme in terms of timing, sequencing and scope. This will require a structured report and review methodology which is to be built into the proposed governance structure.

15.4.1 Review of Benefits and Strategy

As the Access for Everyone programme is implemented, it is proposed that reviews are carried out on a regular basis, as opposed to a gateway review approach. The reason for this is that while it is important to monitor benefits and ensure that risks are being mitigated and managed prior to ongoing implementation, the implementation plan is made up of a large number of relatively small interventions, not all of which are physical changes. The programme is not made up of a small number of high-risk, high-cost measures. Therefore, this situation lends itself to a regular review process across each of the agencies. This can be managed through the proposed governance structure.

15.4.2 Monitoring of Outcomes

The monitoring and analysis workstream is to be set up as an early action. The data and other information to be collected by the workstream will be guided by:

- Benefits realisation and management (see below)
- Identified risks
- Stakeholder concerns and areas of need
- Scope and location of upcoming projects and interventions

An early action for Access for Everyone should be the definition of a detailed monitoring and analysis workstream which should define the sort of information to be collected and could include data such as:

- Counts of people and users in various modes or locations,
- Performance metrics for transport links,
- Performance metrics for business and land uses (eg spending, rents),
- Economic metrics (eg land values, GDP contribution)
- Perceptions of people and stakeholders,
- Outturn costs of interventions (opex and capex)

The scope of this data collection should consider the upcoming work programme in order to establish a baseline data set that can be readily used to measure the effects of interventions.

15.4.3 Analysis and Reporting

The results of the abovementioned monitoring process should be reported regularly to the PCG, partners and stakeholders. The data should inform partners and stakeholders in the scoping and sequencing of upcoming proposed changes in the city centre.

15.4.4 Reporting to Partner Organisations

It is expected that the Heads of Agreement will specify details, however it is expected that the PCG and Project Director will provide a report quarterly on:

- Progress against programme
- Risks
- Performance of interventions
- Planned activities

15.5 Key Roles and Responsibilities

A summary of key programme roles and description of responsibilities is attached as Appendix D.

15.6 Outline Programme Plan

A detailed programme plan is included in Appendix B.

Key programme milestones:

Proposed key milestones	Estimated timing
Set up governance, roles, mandates and agreements	2022
Set up engagement roles, forums and detailed engagement plan	2022
Set up monitoring and research roles, methods and processes	2022
Develop comprehensive parking, servicing, loading and mobility strategy	2022 - 2023
Update or implement a Network Operating Plan, including the state highway network	2022 - 2023
Engage on Queen Street Project and plan long term Queen Street outcome	2022 - 2025
Business case and design for City Rail Link project to deliver outcomes near Karangahape Road and Aotea Stations	2022 - 2025



Confirm scope change for Connected Communities project to deliver Learning Quarter and Symonds Street/Anzac Avenue changes	2022 - 2024
Confirm scope change to Te Hā Noa Victoria Street Linear Park project to provide circulation changes.	2022-2024
Commence planning, design and delivery of new projects	2023 -2031

15.7 Benefits Realisation Management

A Benefits Realisation Plan (BRP) has been prepared and attached as Appendix H. The BRP includes the proposed methodology for performance measure capture, baseline data and expected results.

The performance measures provide a framework for post-implementation monitoring. The BRP is a living document that will be reviewed and updated over time as required to remain current with the delivery of the programme.

Table 15-1: Measures for the Access for Everyone PBC

Measure	Method ⁶⁶	Time of Measurement	Baseline	Expected Result
<p>Number of jobs within 45min</p> <p>Spatial coverage of cycling and public transport infrastructure</p>	<p>Baseline the existing 45 & 60-min PT catchment, and the number of people living within that boundary. Measure the future size of the catchment and number of people / jobs / education / developments within the catchment at key census dates (and normalise for standard population growth).</p> <p>45-and 60 min PT trip catchment:</p> <p>GIS mapping – based on existing data modelling, model the size of the 45 and 60-min PT trip / walking catchment for key journeys and locations.</p> <p>Similar to the above, for walking distances – measure existing number of jobs / places of customary practice within walking distance of PT and cycling infrastructure, and re-measure the size and number of people with each census update.</p> <p>Changes in population and employment:</p> <p>Census data of the changes in population and employment within the catchment areas</p>	Per each census update.	Should be measured prior to construction start.	Size of catchments increase over time as the staged completion of the programme is finished, and other key projects in the area are completed.
Measures relating to extent of infrastructure	Direct measurement of infrastructure (cycleways, public space) extent as delivered	Initially, and following any change	Quantity of infrastructure prior to change	Significant increase – expected to match that planned in the business case.
Measures relating to throughput	Standard Auckland Transport measurements using HOP data and AADT and Waka Kotahi CMJ volume surveys, city centre pedestrian counts and AT automatic cycle counts.	Five yearly	Baseline use and immediately before changes	Significant improvements

⁶⁶ Detailed evaluation, where appropriate, as set out in Waka Kotahi list of investment performance measures: Investment-Performance-Measures-for-download-update-2019-08



Measure	Method ⁶⁶	Time of Measurement	Baseline	Expected Result
Measures relating to service, delivery and freight efficiency and reliability	<p>Baseline: the planned level of service to be provided (at each project stage)</p> <p>Measure:</p> <ul style="list-style-type: none"> Proportion of the freight network operating at Level of Service C or better during the inter-peak (standard Auckland Transport Monthly Indicators Report measure) Travel time reliability on the CMJ and The Strand. Parking surveys of loading bays to assess availability and utilisation of loading bays for service & delivery vehicles. 	Five yearly	Baseline use and immediately before changes	Efficiency of deliveries/ servicing expected as a whole to improve with active management and improved provision of loading spaces.
Measure of environmental/ health impacts relative to the implementation of the project.	Baseline environmental measurements from key locations and other areas of influence as identified in the business case.	Minimum - annual measurements.	Should be measured prior to construction start.	Air emissions and noise levels are likely to net reduce once full implementation of e-buses is in place, vehicle volumes reduce and mode share increases.
Measures related to crashes	On-going monitoring of crash data utilising Waka Kotahi's Crash Analysis System (CAS)	Minimum – annual measurements	Should be measured prior to construction start.	Significant decrease– as assessed in the Recommended option section.
Measures related to general perceptions and/ or qualitative measures	<p>Vehicle speed (and volume) data obtained from automatic tube counts.</p> <p>On-street surveys of pedestrian perceptions, to measure performance against amenity/placemaking and perceived safety.</p>	Initially, and following any change	Should be assessed prior to construction start.	Significant improvements – as seen in other existing areas (eg O'Connell's Street ⁶⁷).
Pedestrian delay	<p>Baseline: the baseline level of level of delay per intersection (at each project stage)</p> <p>Measure: pedestrian delay at key intersections – based on surveyed intersection pedestrian volumes and signal phase timing.</p>	Initially, and following any change	Should be assessed prior to construction start.	Significant improvements, particularly on transit malls and areas with full general traffic removal

⁶⁷ https://www.australasiantransportresearchforum.org.au/sites/default/files/ATRF2015_Resubmission_102.pdf

15.8 Risk Management

A risk management strategy and framework and a risk register have been developed (refer to Appendix E) and will be progressively updated as more detailed analysis is undertaken.

The risks, controls and ratings have been assessed. The completed risk register is included as Appendix E: Risk Register. The top risks are presented in Table 15-2. They are at a high (red) or medium (orange) level. None is considered as requiring additional management or mitigation over the existing controls which are currently in place.

Table 15-2: Identified Risks

Risk	Mitigation Strategy	Risk Level (Rating)
Plan is ineffective in view of stakeholders or successfully challenged by opponents	Proposed governance and stakeholder engagement structure. Monitoring and analysis to inform stakeholder engagement and decision making via governance structure. Proactive and consistent communications efforts.	Moderate Threat (12)
Lack of funding to implement key actions	Develop clear evidence base, demonstrate strategic alignment, scope and commission robust SSBCs	Moderate Threat (9)
Outcomes and effectiveness is undermined by misaligned projects or lack of implementation of dependencies	Define governance structure and agree as part of business case. Assurance processes put in place.	Large Threat (16)
Poor support and outcomes for business through inadequate inclusion of freight and servicing needs for business	Strong engagement with business and logistics. Early understanding of data and info needs. Proactive and consistent communications efforts.	Moderate Threat (9)
Key land or business owners challenge outcomes in court	Legal reviews at key milestones, engagement early on outcomes. Proactive and consistent communications efforts.	Moderate Threat (9)
Construction and consultation fatigue undermines support esp. with covid impacts	Sequencing and staging - and narrative - is aligned with minimising disruption. Plan to leverage current activities. Proactive and consistent communications efforts. Coherent comms and engagement plan	Moderate Threat (8)
Projects being depended on for delivery fail to deliver	Develop clear dependencies in the programme. Put in place project assurance processes.	Moderate Threat (9)
Inability to agree network management principles with operational aspects of organisations including due to conflict with wider regional functions.	Develop high level circulation plan and recommend development of a Network Operating Plan. Clear mandate from partners to operate networks to support Access for Everyone.	Moderate Threat (9)
Private developers see Access for Everyone as restrictive or dictating	Develop internal and external comms clearly articulating Access for Everyone, the programme, tasks etc showing this as an enabler. Along with monitoring of financial benefits.	Moderate Threat (9)
Internal project managers view Access for Everyone as means of deflecting cost/ issues	Strong clear governance along with clear concise communication plan for internal projects across all parties.	Moderate Threat (8)

Risk	Mitigation Strategy	Risk Level (Rating)
<p>Access for Everyone is seen to dictate/ outcomes. The process is undermined and becomes unworkable with additional project scope creep or programme increase for those delivering projects within the city.</p>	<p>Strong clear governance along with clear concise communication plan for internal projects across all parties.</p>	<p>Large Threat (15)</p>

15.9 Programme Assurance Arrangements

The assurance arrangements are built into the Management Case through:

- The staged delivery of outcomes
- The multi-agency governance structure that includes engagement to respond to key risks identified that could inhibit the realisation of benefits
- The monitoring and reporting proposed to ensure that benefits are being realised and that there is a process for addressing issues.

NEXT STEPS

The following items need to be progressed immediately:

- Finalisation of agreement(s) among the programme partners for the ongoing management and governance of the Access for Everyone programme.
- Progression of funding applications for immediate phases, including:
 - Developing comprehensive parking, loading, servicing and mobility access plans
 - Initiatives (studies and business cases) to leverage and align with committed projects, specifically City Rail Link stations public realm improvements and Te Hā Noa Victoria Street Linear Park enhancements
- Obtaining resource to support the governance structure
- Convening the various forums within the governance structure
- Establishing and managing an ongoing monitoring and analysis workstream, including funding for data collection, analysis and reporting
- Developing an engagement and communications plan, including funding of activities
- Engaging with City Rail Link Ltd to investigate the potential to deliver Access for Everyone outcomes in the vicinity of new stations as part of upcoming construction
- Engaging with the Connected Communities programme to deliver towards Access for Everyone outcomes on Symonds Street and in the Learning Quarter
- Working with the Te Hā Noa Victoria Street Linear Park project team to further implement Access for Everyone outcomes
- Engage with Auckland Transport and Waka Kotahi's network management processes, including the Network Optimisation SSBC and the Auckland Motorway Alliance to leverage opportunities to manage the network in support of Access for Everyone objectives.

Other next steps include:

- Monitoring the progress of a northern cycling connection and prepare a response for the city centre's northern access.
- Work with and monitor the Queen Street Pilot project.
- Monitor other city centre initiatives, including private developments to respond as appropriate.
- Engage with stakeholders and plan sequencing for future initiatives.

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Appendix A

Investment Logic Map

KEY ROLES AND RESPONSIBILITIES TBC

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Appendix H

Benefit Realisation Plan

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Appendix I

Economics Report

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Appendix J

Impacts of COVID-19

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Appendix L

Te Ao Māori Assessment

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