

NORTH WEST INTERIM BUS IMPROVEMENTS

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Auckland Transport has been working with Waka Kotahi NZ Transport Agency on the Northwest Interim Bus Improvements project as the first stage of a longer-term Northwest Rapid Transit project. This includes, interim bus stops at Te Atatu and Lincoln Rd, upgrading and extending of bus shoulder lanes along the Northwestern Motorway (SH16), and a new bus station at Westgate.

These improvements will increase the efficiency of bus services to, from and within the northwest, which will make for a better-connected city, with improved access to opportunities for people. The northwest has suffered from a poor public transport offering compared to other parts of Auckland, and these improvements will make bus services a more competitive option. The interim nature of the works will allow for speedy benefits for users, setting in place patterns of travel which will support the longer term provision of a rapid transit service – potentially busway or light rail.

The project was granted stimulus funding to fast-track implementation, so this paper will cover the background to the project, work to date and the upcoming next steps. This will include consideration of the longer term rapid transit planning, as well as co-ordination with land use growth planning in the northwest.

INTRODUCTION

Auckland Transport (AT) has been working with Waka Kotahi NZ Transport Agency on the Northwest Interim Bus Improvements project as the first stage of a longer-term Northwest Rapid Transit project.

This is the result of many years of investigations and studies, and seeks to address the increasing challenges for travel relating to the growth of the northwest area.

This paper will cover the background to the current project, work to date and the next steps. This will include consideration of the longer term rapid transit planning, as well as co-ordination with land use growth planning in the northwest.

TRANSPORT CONTEXT

People living in the Northwest currently have very limited travel choice options, which is putting significant pressure on the State Highway 16 Northwestern Motorway, and existing public transport infrastructure and services, with the current bus travel time between Westgate and the city centre being significantly longer than by private vehicle and often unreliable, compared to equivalent trips elsewhere in the region.

Exacerbating the current lack of travel choice, it is anticipated that the Northwest will grow with an additional 37,000 new homes and 11,000 new jobs expected by 2046. This means the area has the highest reliance on private vehicles in the region.



Figure 1: Yellow areas indicate growth areas in Northwest Auckland

Within the bus network, there is no frequent direct bus service to the city centre (many less frequent services reach the city centre, or frequent services use an indirect route. This is illustrated

in the complex network shown in Figure 2.



Figure 2: Northwest bus network showing lack of frequent direct bus service to city centre.

The need for better public transport (and ultimately a new North West rapid transit solution) is identified in several key strategic documents, including Auckland Transport Alignment Project (2018), Auckland Plan 2050 and also in the mode shift plan, Better Travel Choices (2019).

PREVIOUS WORK

Between 2012 and 2014 several studies were undertaken that looked at the future need for and feasibility of rapid transit in the north west. In 2015 a Strategic Case was produced that updated the context within which rapid transit considerations were to be made – including the latest Northwest growth projections. The Strategic Case noted that:

- Population and employment growth in the Northwest is already occurring at a greater rate and scale than previously planned.
- The planned transport network will be unable to support the resulting growth in travel demands in the area. This will result in poor overall transport outcomes and will undermine the growth of Westgate and the City Centre.
- A busway would deliver approximately twice the capacity of the SH16 corridor in its current configuration, with light and heavy rail systems providing even greater capacity. Such a transport network would accommodate growth in travel demands in the area up to and beyond 2041.

- Over time, Westgate is expected to emerge and play an increasingly important role as a metropolitan centre. Westgate's development is contingent on improved access to the City Centre and other areas served by the NWRTC including Lincoln Road, Te Atatu Road, Hobsonville, and Kumeu.
- The NWRTC effectively expands the size of the labour force that is willing and able to travel to work in the City Centre, thereby supporting higher productivity and broadly aligning with strategic City Centre objectives.
- The current lack of public transport infrastructure reduces efficiency of bus operations and ultimately increases the net costs associated with delivering public transport. The NWRTC will improve the efficiency of the public transport network by both reducing operating costs and growing patronage.

In 2017-2018 AT completed the North West Rapid Transit Corridor Indicative Business Case (IBC). The IBC recommended in the long-term to build a separated Rapid Transit Corridor (RTC) alongside State Highway 16 (SH16). This would be similar to the Busway on the North Shore and would improve travel times and reliability for people using public transport and provide better access to and from employment in the growing north west area of Auckland.

This was predicated on a core high frequency bus service using SH16 and interchanging with local services at new interchanges, which typically needed to be provided at motorway interchanges where local roads crossed the State Highway. This would allow local bus services to more frequently service local areas (e.g. Te Atatu to Henderson) rather than serve local areas AND take passengers to the city centre. This is illustrated in Figure 3.

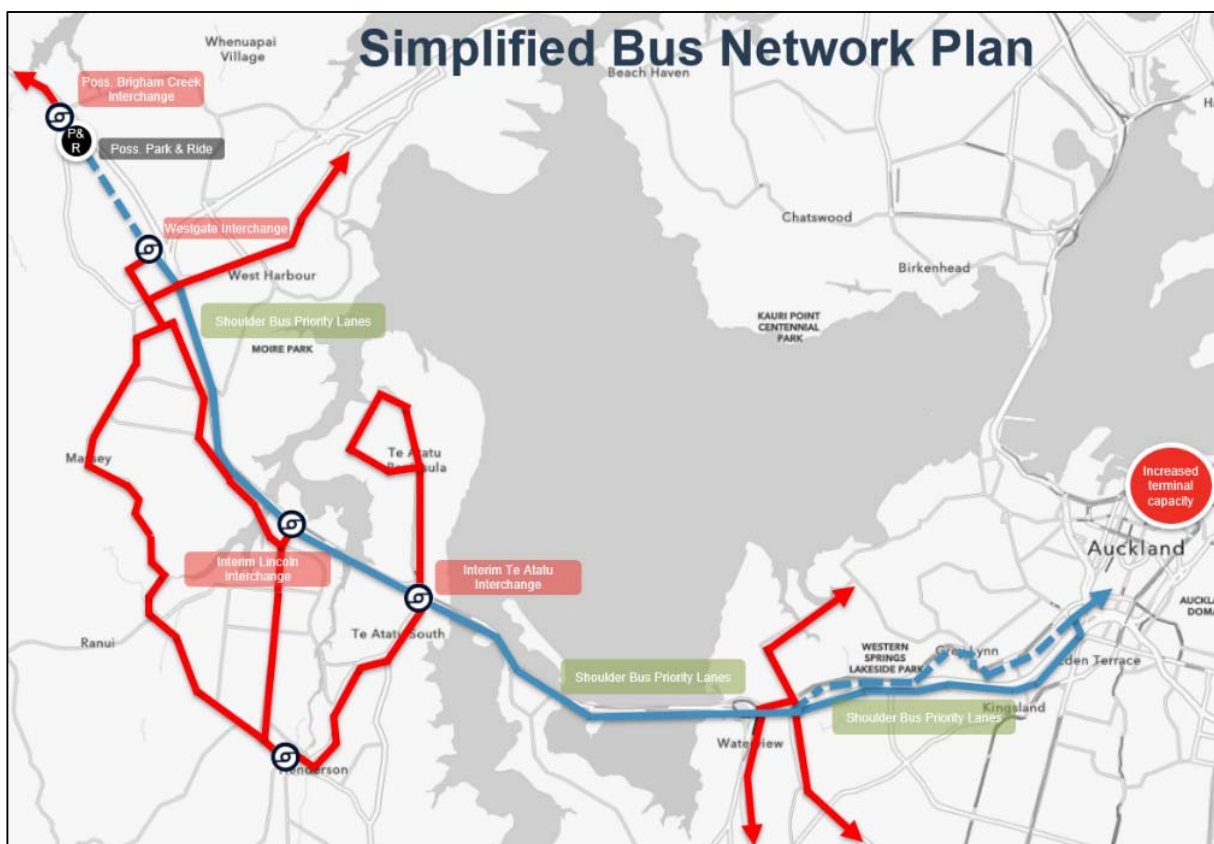


Figure 3: Simple schematic of change in Northwest bus network with direct SH16 service.

Around this time the Government was investigating light rail transit (LRT) and this became an option considered for the northwest. The IBC identified that although LRT to the northwest would provide the best long term transport outcomes, it was not able to be staged in the way a bus-based system could be, and at that point there was uncertainty of LRT delivery as a new transport mode to Auckland.

Hence AT took the position that the staged development of a bus-based system (capable of being transitioned to LRT) was the best way forward, although the overall uncertainty on rapid transit meant that no funding was set aside to progress the proposals.

In 2019, whilst LRT discussions were continuing but no decision had been made, AT proposed that progress could be made on interim bus improvements to be achieved ahead of any future rapid transit solution (and regardless of what it was). This was supported by the Mayor and Minister of Transport, so AT quickly began a Northwest Interim Bus Improvements Detailed Business Case (DBC).

The DBC project objectives were to:

- a. Increase the efficiency of public transport to, from and within the Northwest
- b. Make public transport a realistic option for journeys to, from and within the Northwest
- c. Improve connections to from and within the Northwest.

The intended project outcomes include:

- d. A more efficient public transport system
- e. Public transport is a more competitive option for trips to, from and within the Northwest
- f. Improved public transport uptake to, from and within the Northwest and reduced emissions
- g. Better connected city, improved access for people to opportunities

The scope of the DBC focused on a series of interim bus improvements that could be delivered within 1-5 years.

CURRENT PROPOSALS

The interim improvements developed in the DBC allow local bus customers to interchange with a motorway running service and enable a busway-type network, ahead of a longer-term rapid transit service.

The interim improvements, to be in place as soon as funding allowed, include:

- New bus stops/stations at Westgate and the Lincoln and Te Atatu Road motorway interchanges
- Upgrading and extending the existing bus shoulder lanes on the Northwestern Motorway (SH16)
- Improvements at motorway on/off ramps to increase priority for buses

In addition, the DBC proposed a further consideration of an offline station at Brigham Creek Road, potentially incorporating park and ride.

Once the interim bus improvements are delivered, expected benefits include:

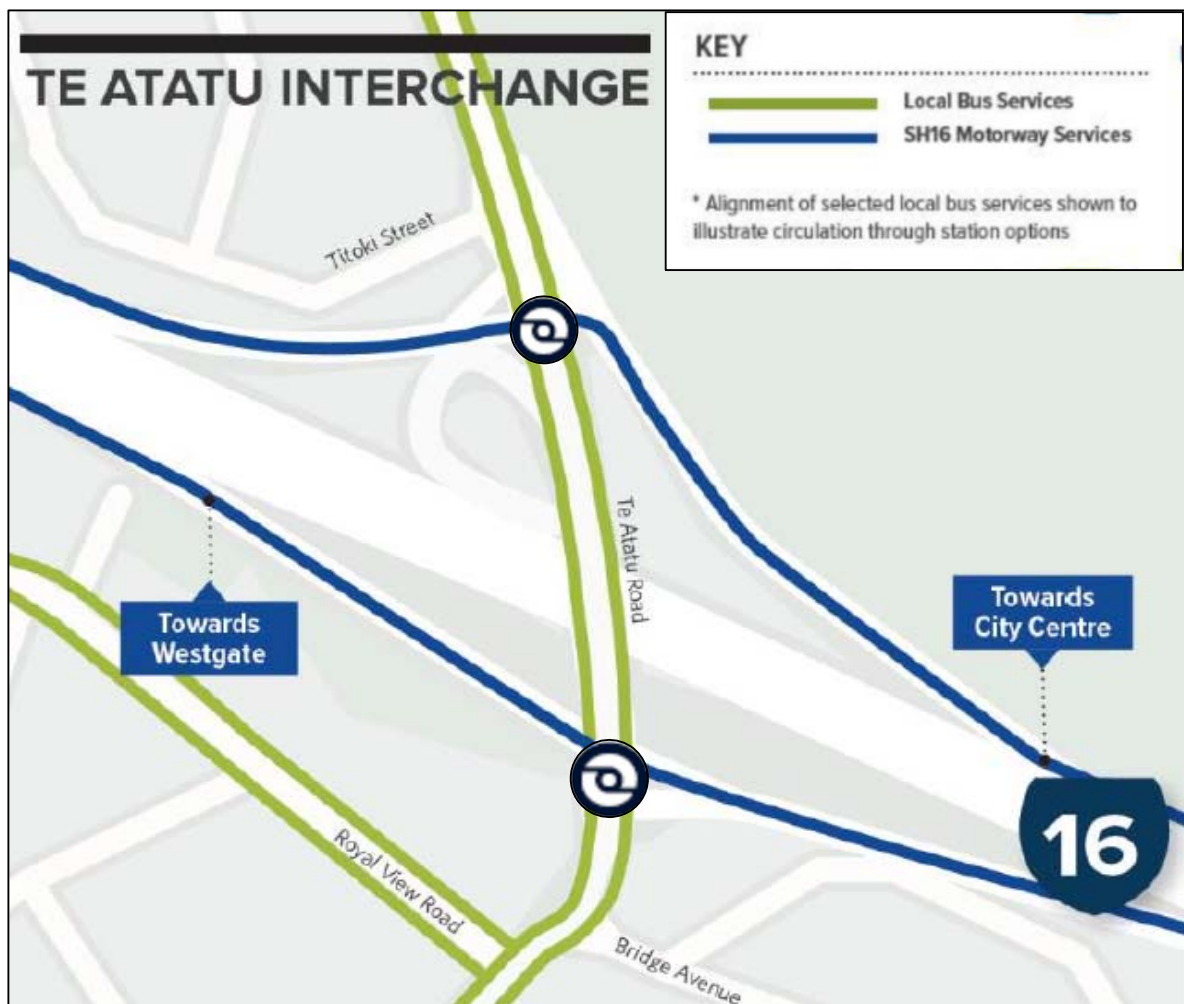
- A travel time saving of 25 minutes for a bus trip from Westgate to the city centre
- Job opportunities within a 45-minute bus journey to increase to 222,000 from 47,000
- An increase from approximately 160,000 to 333,000 people able to access the city centre within a 45-minute bus journey

- 14,000 more people living in the project area will be able to access Westgate within a 45-minute bus journey
- 18,500 more people living within the project area will have a bus stop with frequent services within 500m from where they live
- An increase of almost 10km of bus priority along the Northwestern motorway (SH16), from 13km to almost 23km

Below is a more detailed explanation of the interim improvements.

Te Atatu Road Interchange

- New bus stops to be built within the Te Atatu Rd motorway interchange
- Bus services using the motorway bus shoulder lanes will exit the motorway and access the new bus stops to allow a connection with local bus services, and then re-enter the motorway
- This enables local Te Atatu bus customers to access frequent bus services between Westgate and the city centre



- Creates a busway-type service pattern ahead of a full rapid transit service

Figure 4: Simple schematic of Te Atatu Rd interchange

Upon completion, the below render (Figure 5) shows the potential layout of the Te Atatu

interchange, looking northwest.



Figure 5: Artistic render of Te Atatu Rd interchange

Lincoln Road Interchange

- New bus stops to be built within the Lincoln Rd motorway interchange
- Bus services using the motorway bus shoulder lanes will exit the motorway and access the new bus stops to allow a connection with local bus services, and then re-enter the motorway
- This enables local Henderson bus customers to access frequent bus services between Westgate and the city centre
- Creates a busway-type service pattern ahead of a longer-term rapid transit service

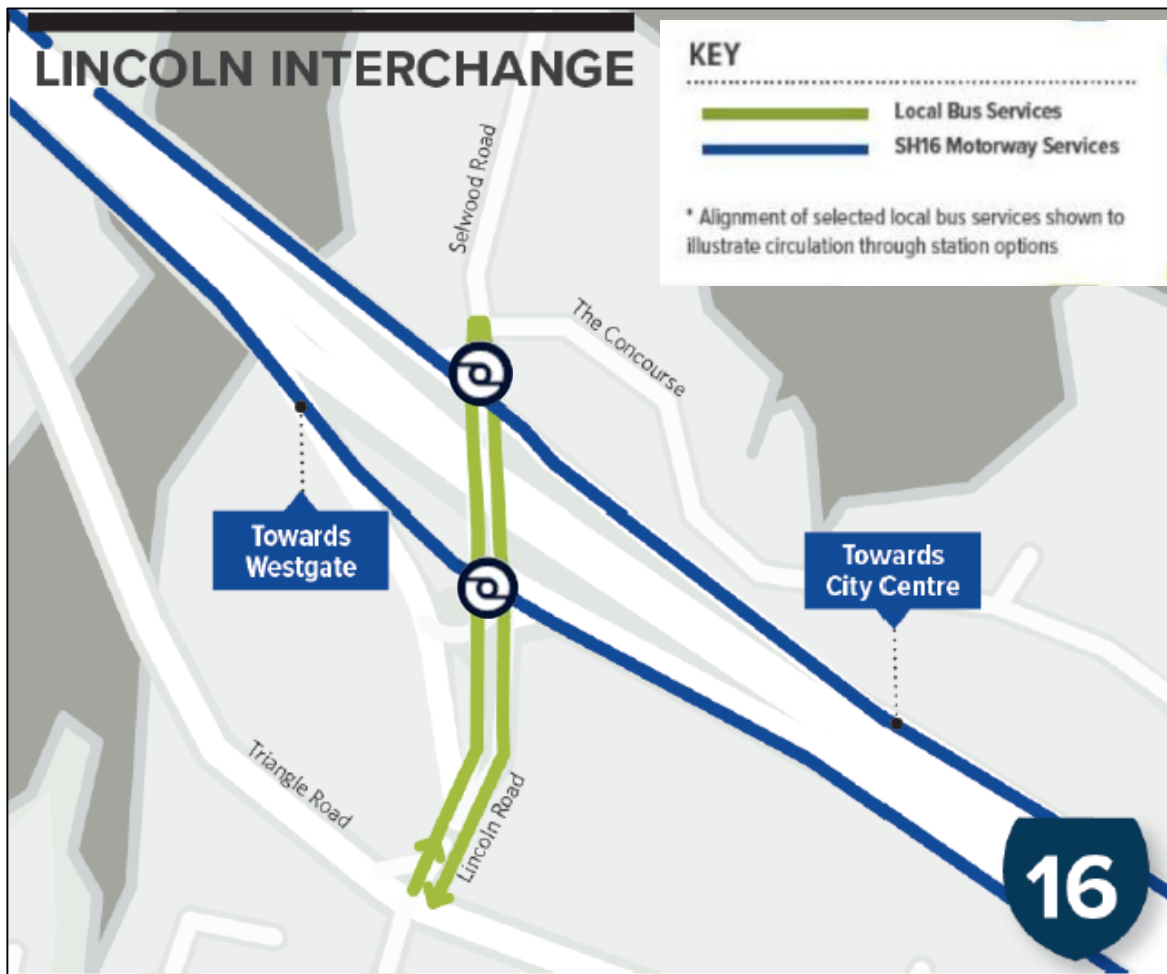


Figure 6: Simple schematic of Lincoln Rd interchange

Westgate Station

- New bus station for access to Westgate, linking local and motorway bus services
- Provides a frequent and reliable public transport option for people living in Kumeu, Riverhead and Huapai
- Supports rapidly developing Westgate commercial centre
- Expandable to become station to serve longer-term rapid transit as well as local bus services



Figure 7: Simple schematic of Westgate station

SH16 bus shoulder lanes and bus priority

- More continuous bus shoulder running along SH16 motorway, to improve bus travel time and reliability
- Increased bus priority at motorway interchanges
- Assists in creating a busway-type service pattern ahead of a longer-term rapid transit

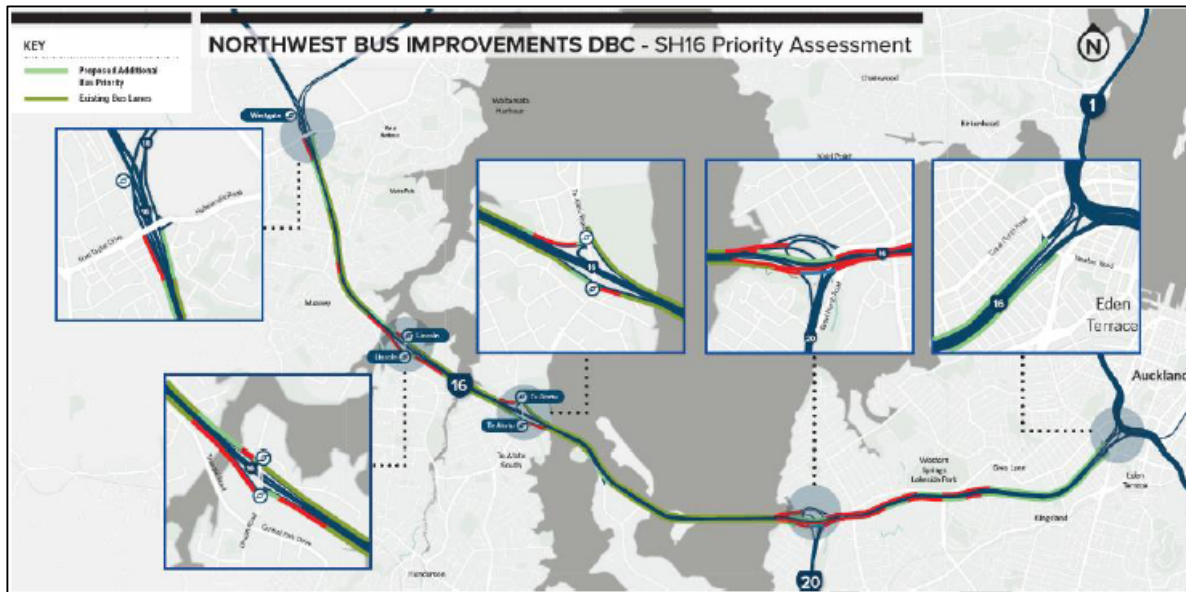


Figure 8: Simple schematic of bus shoulder lane proposals

FUNDING

AT has been approved by the New Zealand Government for funding support through the COVID Response and Recovery Fund ‘shovel ready’ project initiative for AT to deliver the improvements. Crown Infrastructure Partners Limited (CIP) has been mandated to distribute and manage that funding support and CIP and AT have entered a funding agreement whereby AT is to receive a contribution of up to \$50m and up to \$50m from the National Land Transport Fund (subject to business case approval).

DELIVERY PROGRAMME

At time of writing, the project is within a procurement phase for design and other professional services, but the overall programme is expected to be as follows:

Early 2021	Detailed Designs and Resource Consent
Mid/Late 2021	Construction starts for Te Atatū and Lincoln Road bus stops and bus shoulder lane improvements
Mid/Late 2022	Construction complete for Te Atatū and Lincoln Road bus stops facilities and bus shoulder lane improvements
Late 2022/Early 2023	Construction start for Westgate Station
Late 2023	Construction complete for Westgate Station

FUTURE PLANS

Looking beyond the next five years, Waka Kotahi plan to explore options for a rapid transit system so that even move people are able to move along SH16. Further announcements on rapid transit planning are expected in 2021 following work by the Ministry of Transport and other transport agencies. Regardless of when a direction is received or what the way forward is, the interim bus improvements will offer benefits to northwest residents, as any rapid transit solution is likely to be of a scale that it will take many years before it can be in place.

NEXT STEPS

At time of writing, the project is within a procurement phase for design and other professional services, and a full update of progress will be provided at the conference presentation.