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# Northern Busway Enhancements Detailed Business Case

For decision:

For noting:

## Ngā tūtohunga / Recommendations

That the Auckland Transport Board (board):

- i. Approve the findings of the Northern Busway Enhancements Detailed Business Case, as the basis for future busway improvements and to inform longer term Additional Waitematā Harbour Connections planning.
- ii. Note that limited funding to deliver these interventions is currently allocated between 2028-2031 in the draft Regional Land Transport Plan, though opportunities for earlier implementation will be explored.
- iii. Note that investment in the interventions are expected to delay the need for the significant investment required for an additional North Shore rapid transit network.

## Te whakarāpopototanga matua / Executive summary

1. The Additional Waitematā Harbour Connections (AWHC) Business Case was endorsed by the board in October 2020. The first priority recommendation was to enhance the capacity and performance of the Northern Busway (Attachment B). This was because evidence showed the busway was reaching capacity but could be enhanced further.
2. Auckland Transport (AT) has completed a Detailed Business Case (DBC) to develop a programme of interventions to enhance the Northern Busway to improve its capacity and performance. The improvements proposed will enable the Northern Busway to meet projected passenger demand and allow AT to continue to provide a high-quality service that meet customer expectations. The DBC also sets the platform to inform future AWHC investigations, in particular the rapid transit network planning.
3. The DBC recommends the implementation of interventions over four staging horizons, commencing with station upgrades and ultimately including an extension of the busway south of Akoranga station.
4. The estimated cost of the early interventions (station upgrades, corridor optimisation, etc.) is \$80 million. Currently the draft RLTP has allocated \$62 million to this workstream between 2028-2031. Given patronage growth pressures, earlier funding would be beneficial, to allow

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design and implementation phases to progress in a timely way. Opportunities for earlier investment will continue to be explored, along with a review of patronage trends in the wake of COVID-19 pandemic (COVID-19) impacts.

5. Endorsement of the DBC is required as the first step in improving and developing the current North Shore rapid transit network.

## **Ngā tuhinga ō mua / Previous deliberations**

6. In October 2020, the board endorsed the findings of the AWHC Business Case. This endorsement included the urgent need to identify a detailed programme of works to enhance the performance and capacity of the Northern Busway. The resolutions from those deliberations are shown in Attachment A and the recommended AWHC stages are shown in Attachment B.
7. The Waka Kotahi New Zealand Transport Agency (Waka Kotahi) Board endorsed the AWHC business case in September 2020 and allocated up to \$20 million towards the next phases.

## **Te horopaki me te tīaroaro rautaki / Context and strategic alignment**

8. By 2038 around 32,000 trips from the North Shore are expected to cross the Waitematā Harbour in the morning peak, up from 22,000 in 2016. Almost 60% (around 19,000) of those trips are to the city centre and fringe areas. This significant travel demand is best served by a high capacity public transport service, showing the need for the Northern Busway to continue to develop.
9. Since the Northern Busway opened in 2008, ridership has grown by an average rate of 25% per year, growing from approximately 1,300,000 in 2008 to almost 8,000,000 in 2019. This patronage growth is expected to continue into the future, with a 170% increase projected to around 21,700,000 by 2038. Current COVID-19 impacts are expected to only temporarily slow this patronage growth, and this will be monitored.

## **Ngā matapakinga me ngā tātaritanga / Discussion and analysis**

10. Having proven that the Northern Busway is critical to serving ongoing North Shore travel growth, the DBC investigated how best to enhance its capacity, performance and therefore its longevity.
11. If enhancements are not made, it will severely compromise the ability of the Northern Busway to operate as part of the rapid transit network and result in increased and variable travel times and overcrowded, unsafe facilities, as well as hampering AT's mode share and climate change objectives.
12. These issues would firstly manifest in a degradation of station capacity, with long bus dwell times leading to overcrowding on platforms and increased platooning/bunching of buses. This will lead to increased travel time variability for all busway services.

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13. The DBC recommends a programme of targeted interventions to progressively improve Northern Busway infrastructure. These are divided into four horizons, with the focus being on the first two, which deliver the most urgent benefits.
14. Horizons three and four have strong interdependencies with the wider AWHC programme so are best dealt with once more is known about that programme.
15. Horizon one interventions are improvements that can be delivered in the short term to provide immediate relief for some of the problems identified at stations and stops across the busway system. Interventions include:
  - a. Platform and bus stop extensions.
  - b. Platform and bus stop widening.
  - c. Signal optimisation on Fanshawe Street.
  - d. Minor bus priority improvements on SH1.
  - e. System-wide improvements, i.e. all door boarding and active queue management.
16. Horizon two interventions are further station upgrades to enable separation of local and busway services and includes pedestrian overpasses to remove all customer conflict with the increasing number of buses at stations. Dedicated stops for local and busway buses eliminates bus conflict/queuing at stops which will reduce bus bunching and dwell times. Interventions include:
  - a. Infrastructure to separate local bus movements from busway services.
  - b. Grade separated crossings.
  - c. Additional layover bays.
  - d. System-wide improvements, i.e. off board fare collection and level boarding.
17. Horizon three and four interventions are linked to the wider AWHC programme. The timing and need for these interventions are dependent on whether the additional rapid transit recommended in the AWHC Business Case is progressed. Interventions include:
  - a. Managed/transit lanes on SH1 to provide additional priority for buses across the Harbour Bridge.
  - b. Extending the busway south of Akoranga to Onewa Road.
  - c. Widening of SH1 through Saint Mary's Bay northbound between Beaumont Street and the Curran Street off-ramp.
  - d. A fully separated bi-directional urban busway on Fanshawe St between Beaumont and Nelson Street, with signal optimisation and midblock signalised pedestrian crossing.

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18. A parallel project is currently underway investigating the potential to improve the accessibility of rapid transit stations, highlighting the opportunity to improve access to the overall public transport system.

## Ngā tūraru matua / Key risks and mitigations

Key risk	Mitigation
Reputation Risk - high public interest, but no immediate funding to proceed	Visible action by AT with project partners to develop and implement plans as quickly as feasible.
Project Risk – integration with other projects	Work to date has included engagement with other key projects within the same area, including Northern Pathway, Auckland Harbour Bridge Long Term Plan, Supporting Growth, and Fanshawe Street and City Centre projects.
Financial Risk – cost and fundability	Further work into prioritising funding in the RLTP.
Governance – network integration	Ensuring future workstreams involves joint AT and Waka Kotahi governance.

## Ngā ritenga-ā-pūtea me ngā rauemi / Financial and resource impacts

19. The estimated cost of the early interventions (station upgrades, corridor optimisation, etc.) is \$80 million. Currently the draft RLTP has allocated \$62 million between 2028/29 – 2030/31. Given patronage growth pressures, earlier funding would be beneficial, to allow design and implementation phases to progress in a timely way.

## Ngā whaiwhakaaro o te taiao me te panonitanga o te āhuarangi / Environment and climate change considerations

20. Achieving the improved Northern Busway infrastructure proposed will increase capacity at stations and enable buses to operate more efficiently, which in turn is likely to have region-level effects upon patronage growth, and therefore will assist AT's emissions reduction targets. Station upgrades will include consideration of how infrastructure can be more sustainable, e.g. recovering rainwater, use of solar panels, etc.

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## **Ngā reo o mana whenua rātou ko ngā mema pooti, ko ngā roopu kei raro i te maru o te Kaunihera, ko ngā hāpori katoa / Voice of mana whenua, elected members, Council Controlled Organisations, customer and community**

21. Key stakeholders were engaged with as part of the DBC development last year, including the Local Boards within the project area. These stakeholders, amongst others, will also be engaged with once when funding becomes available to progress the Horizon 1 and 2 workstreams. No public consultation has been undertaken to date but would be expected once workstreams are developed further.

## **Ngā whaiwhakaaro haumaruru me ngā whaiwhakaaro hauora / Health, safety and wellbeing considerations**

22. Some of the proposed interventions will improve customer safety at stations, e.g. grade-separating crossings.

## **Ā muri ake nei / Next steps**

23. Following board endorsement of the DBC, the next steps include:




- a. Investigation of possible earlier funding sources for the Horizon 1 and 2 Northern Busway improvements.
- b. Working with Waka Kotahi to establish governance of the AWHC project, (of which this is a founding element) to progress next steps of design and implementation.

## **Ngā whakapiringa / Attachments**

Attachment number	Description
Attachment A	Previous deliberations
Attachment B	Recommended AWHC stages
Attachment C	Recommended interventions for Horizon one and two
Attachment D	Northern busway patronage and future delays

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## Te pou whenua tuhinga / Document ownership

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