HARBOUR QUAYS MCA Workshop

10 February 2025

metlink

Greater Wellington
Te Pane Matua Taiao

Absolutely Positively
Wellington City Council
Me Heke Ki Pōneke

Route MCA Workshop

Agenda

1. Confirmation of process and options (10 minutes)
2. Traffic modelling overview (30 minutes)
3. MCA assessor presentations and discussions (2 hours)
4. Scenario weighting discussion (15 minutes)
5. Wrap up (5 minutes)

MCA Process

- Evaluations will use a 7-point scoring scale
- A "0" score reflects the current situation in 2025.

- A "do minimum" score is needed, considering future demands
- Scores for T01 and T02 are also needed, considering future demands

- Evaluators scores will be presented to the workshop where attendees can have robust discussions about the scores and the evaluator can take these on board to change their scores if necessary

Magnitude	Score	Definition
Large Positive	+3	Major positive impacts resulting in substantial and long-term improvements or enhancements of the existing environment.
Moderate Positive	+2	Moderate positive impact, possibly of short-, medium- or long-term duration. Positive impacts may be in terms of new opportunities and outcomes of enhancement or improvement.
Slight positive	+1	Minimal positive impact, possibly only lasting over the short term. May be confined to a limited area.
Neutral	0	Neutral – no discernible or predicted positive or negative impact. Counterfactual could be the do-minimum or do-nothing,
Slight negative	-1	Minimal negative impact, possibly only lasting over the short term, and definitely able to be managed or mitigated. May be confined to a small area.
Moderate Negative	-2	Moderate negative impact. Impacts may be short-, medium- or long term and are highly likely to respond to management actions.
Large Negative	-3	Impacts with serious, long-term and possibly irreversible effect leading to serious damage, degradation or deterioration of the physical, economic, cultural or social environment. Required major rescope of concept, design, location and justification, or requires major commitment to extensive management strategies to mitigate the effect.

Assessment Criteria

Category	Sub Criteria Assessment	Matters to be considered	Lead MCA Assessor	Council SME Review
Bus	• Bus Travel Times and Reliability (Note this is a proxy for investment objective 1)	• Travel time and reliability on the new route • Travel time and reliability on Golden Mile • Wider bus network impacts	• Rowan Schwynn	• Alex Campbell
	• Route Legibility	• Likely passenger experience of network with two spines	• Rowan Schwynn	• Alex Cambell • David Boyd
	• Network Capacity (Note this is a proxy for investment objective 2)	• Ability to cater for higher-capacity public transit in the future • Ability to provide for disruption from planned and unplanned events on the Golden Mile • Overall bus network capacity • Passing ability at bus stops • Bus performance during Golden Mile construction	• Rowan Schwynn	• Alex Campbell
Pedestrians	• Safe and Convenient Pedestrian Access and Movement (Note proxy for investment objective 3)	• Safe and convenient access between the route and city destinations • Safe and convenient access between the route and waterfront destinations • Pedestrian level of service along and across Featherston Street • Pedestrian level of service along and across the Quays (including Wakefield and Cable)	• Andrew Burns	• David Boyd • Emily Alleway • Daniel Cairncross
	• Pedestrian LoS at Bus Stops	• Pedestrian level of service at new bus stop locations (Comments to be made on ped LoS performance during Golden Mile construction)	• Andrew Burns	• David Boyd • Emily Alleway

Assessment Criteria

Category	Sub Criteria Assessment	Matters to be considered	Lead MCA Assessor	Council SME Review
Bike	• Does not preclude future cycle routes or connections to existing routes	• Cross City Connections Project • Impacts on cycle LoS	Claire Pascoe	Daniel Cairncross
Effects	• Impact on general traffic	• Impact on general traffic travel times • Impact on traffic network which could affect adjacent multi-modal routes	Bob Hu	Andy Ford
	• On-street parking impact	• Net loss per option • Location of location, taxi, accessible and diplomatic parks	Bob Hu	Paul Barker
	• Business impact	• Short-term retail impact during construction • Long-term retail impact – including benefits due to increased activity	Prak Sritharan	Hamish Lobb
	• Construction and Constructability	• Ease of construction • Transport network impacts during construction • Pedestrian/bus user impacts during construction of bus stops	Amanda Wolfaardt	Hamish Lobb

T01 – Featherston Street Corridor

Key Assumptions:

- T01 uses Featherston to move south before using Hunter to join the Quays
- The northbound route is the same for both corridors.
- No dedicated bus lane in either direction
- Some bus priority measures (B phase and/or signal phase adjustments) may be required
- Bus Stop locations provided in separate plans.
- Bus stops will be inline
- Some locations do not require shelters (as indicated)

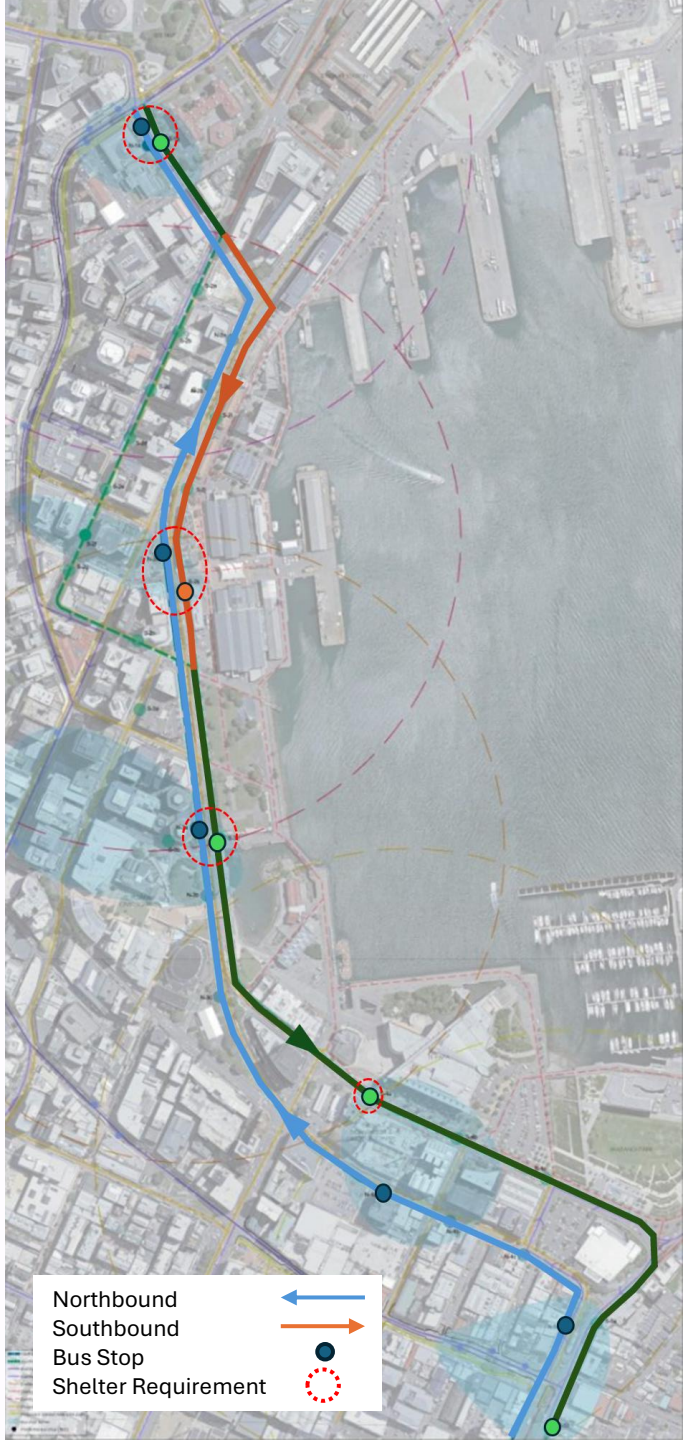
Early Assessment

- Performance of Whitmore Street between Featherston and Stout Streets is being assessed in detail
- Performance of Hunter Street is being assessed in detail
- There are additional route sub-options under consideration for T01 which will be investigated if T01 is the preferred route option.

T02 – The Quays Corridor

Key Assumptions:

- T02 uses Whitmore and Jervois Quay to travel south
- The northbound route is the same for both corridors.
- No dedicated bus lane in either direction
- Some bus priority measures (B phase and/or signal phase adjustments) may be required
- Bus stops will be inline
- Some locations do not require shelters (as indicated)
- Bus Stop Locations provided in separate plans.
- Only one stop pair is different across the corridors



Both Options – Bus Stop Locations

Overall Result

Overall

General Model Assumption

- BASE YEAR 2022
- FORECAST YEAR 2033
- AIMSUN VERSION: 20.0.4
- AM PEAK (7AM-9AM) & PM PEAK (4PM-6PM)
- FULL N2A MODEL

- OPTION TO1(X) - SPLIT BUS ROUTE AND VARIATIONS
- OPTION TO2 - KERBSIDE BUS ROUTE

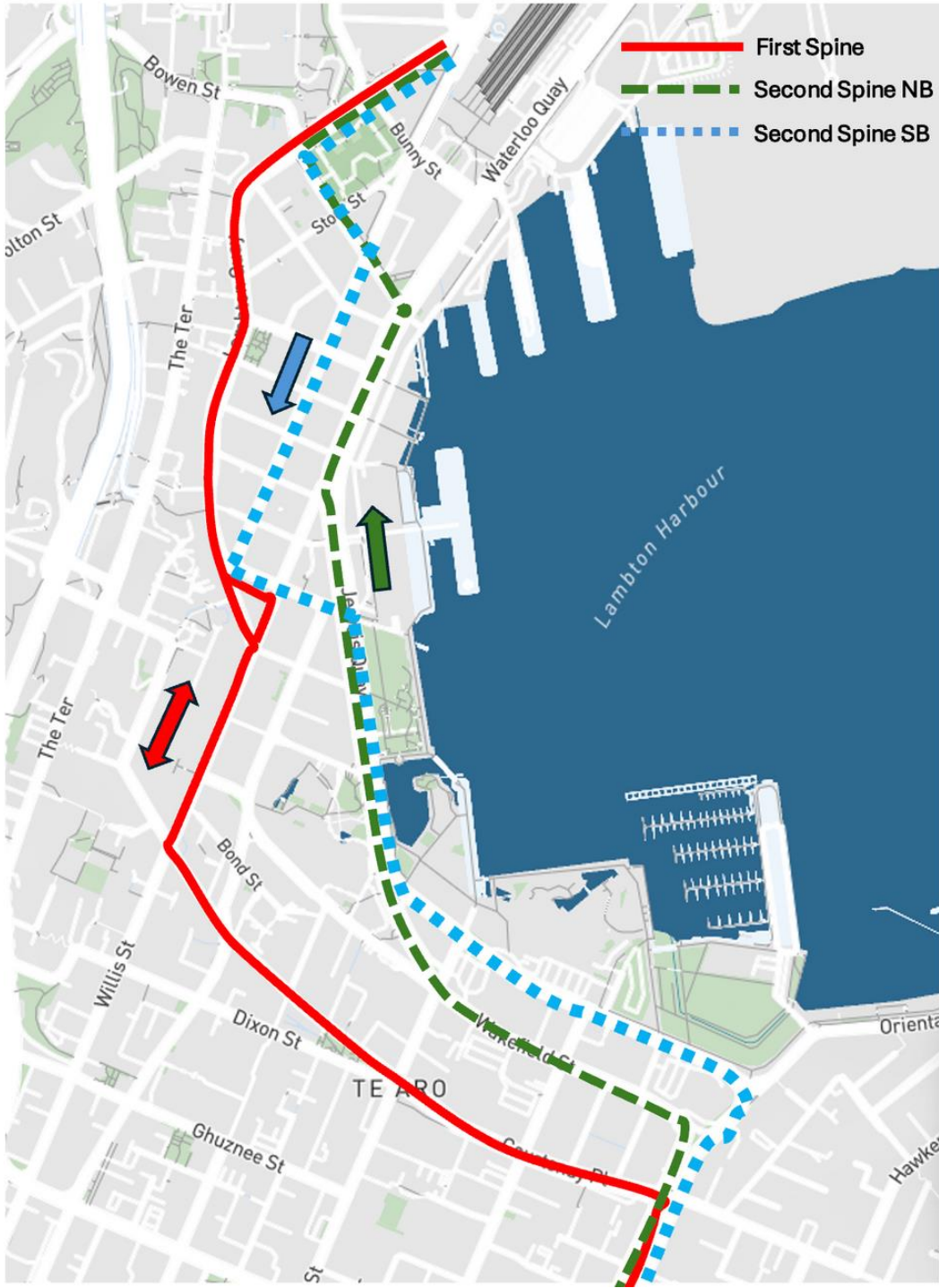
- NO BUS DEDICATED LANE
- BOARDING TIME AS PER GOLDEN MILE

Overall

Bus Assumption

		AM				PM			
		2022 Option Hourly Count	Total	2033 Option Hourly Count	Total	2022 Option Hourly Count	Total	2033 Option Hourly Count	Total
NB	First Spine	42	92	61	147	44	98	77	161
	Second Spine	50		86		54		84	
SB	First Spine	42	108	60	136	44	87	71	158
	Second Spine	66		76		43		87	

Year	Base / Do Min	Options
2022	**Current Bus Demand (As per MetLink Timetable)**	**Current Bus Demand (As per MetLink Timetable)** ***With a proportion via 2nd Spine***
2033	**Option Increased Bus Demand**	**Option Increased Bus Demand** ***With a proportion via 2nd Spine***



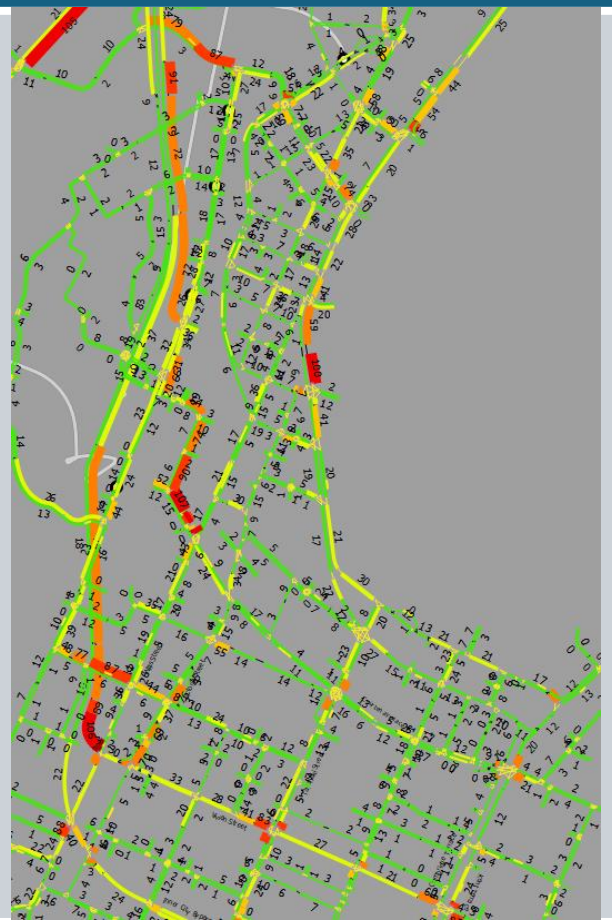
Overall

Model Stats

AM	Total TT (h)	Total VTK (km)	Delay (sec/km)
2022 Base	21,820	685,156	60
2022 TO1	22,434 (+2.8%)	688,825 (+0.5%)	65 (+5s)
2022 TO2	20,836 (-4.5%)	687,683 (+0.4%)	56 (-4s)

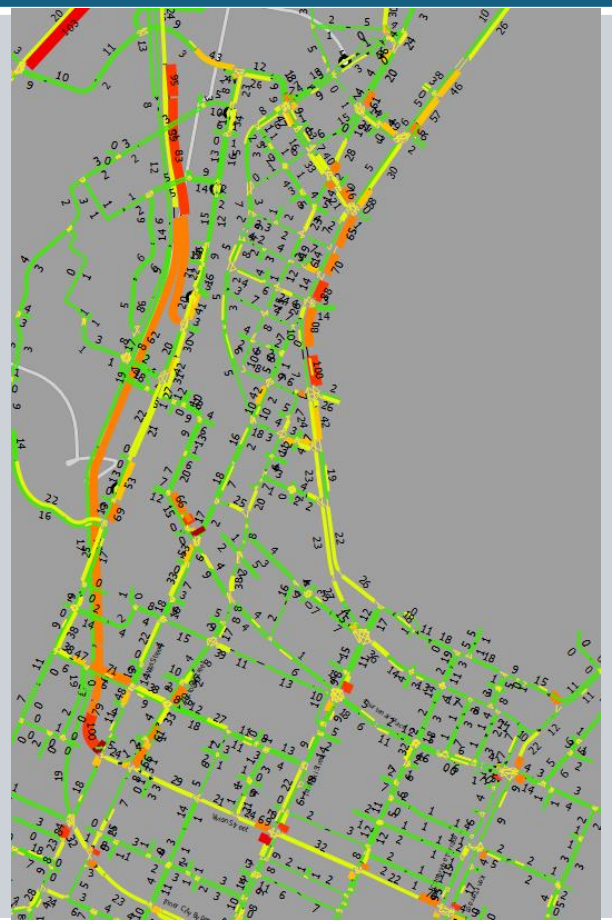
PM	Total TT (h)	Total VTK (km)	Delay (sec/km)
2022 Base	23,637	847,180	48
2022 TO1	23,785 (+0.6%)	842,762 (-0.5%)	51 (+3s)
2022 TO2	25,475 (+7.8%)	845,488 (-0.2%)	60 (+12s)

2022 Base 8:45 – 9:00



2022 TO1 8:45 – 9:00

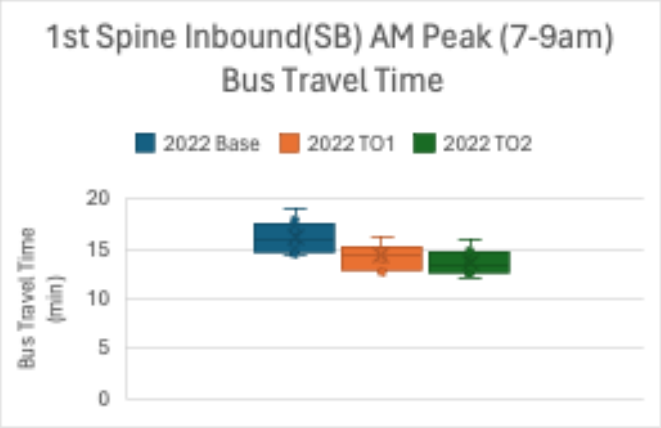
2022 TO2 8:45 – 9:00

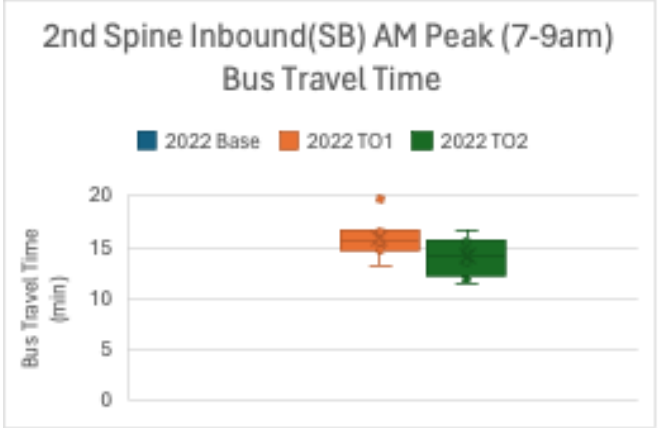


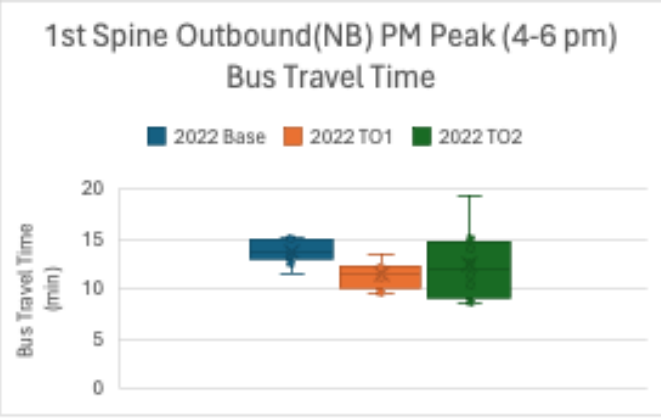

TTAP
Bus
Result

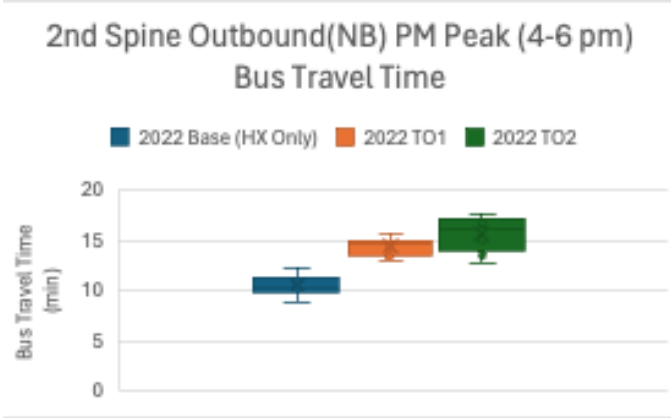
Bus

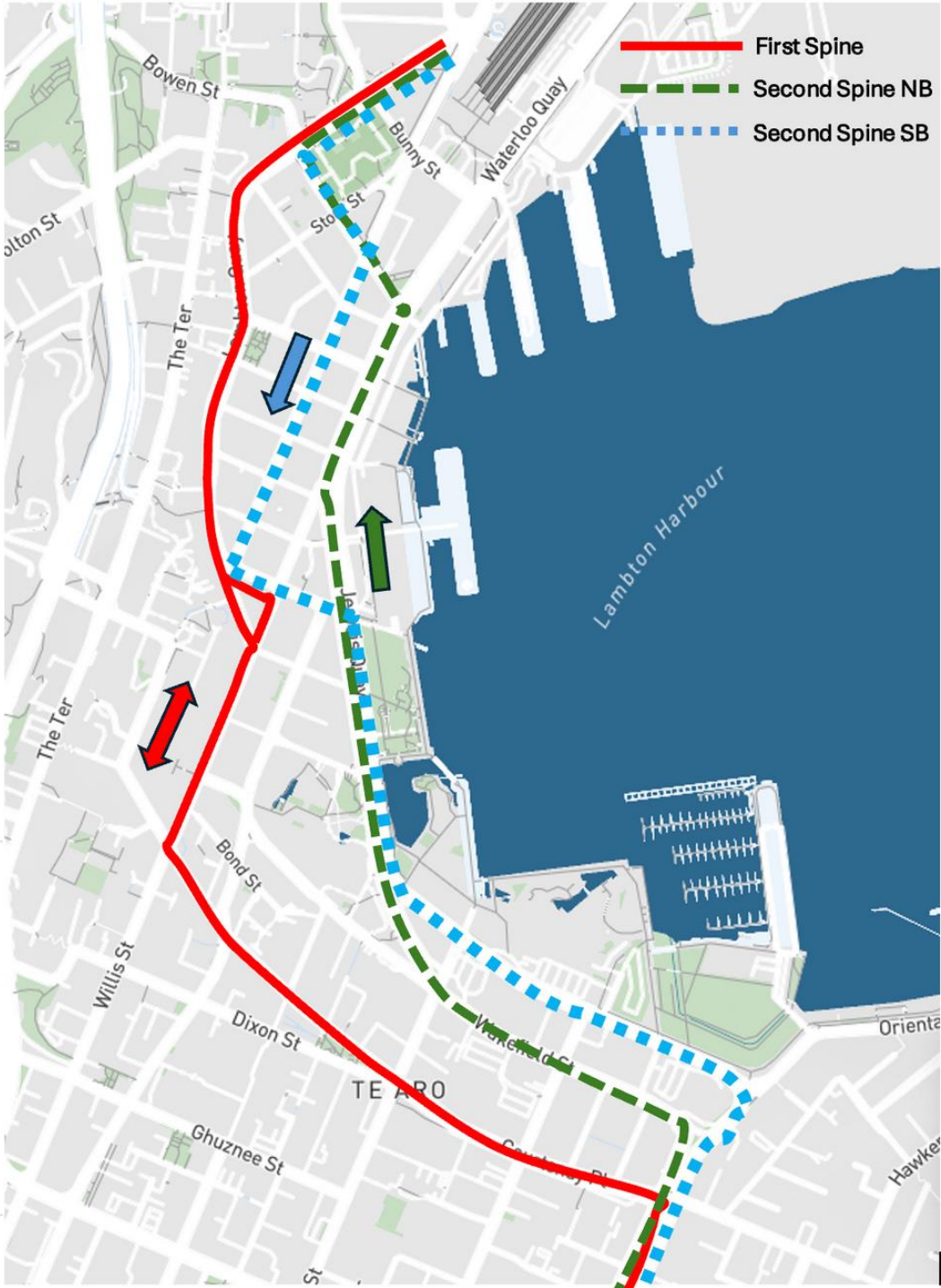
Bus Travel Times and Reliability







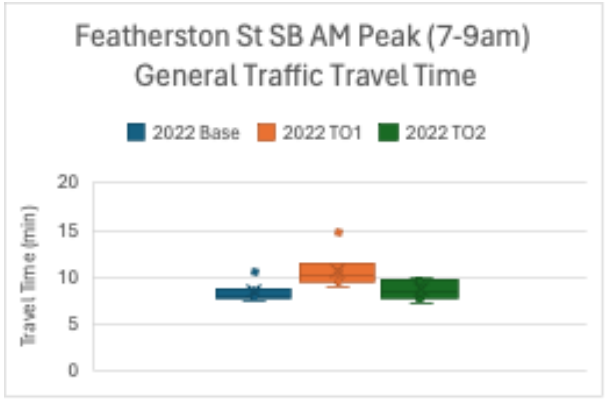


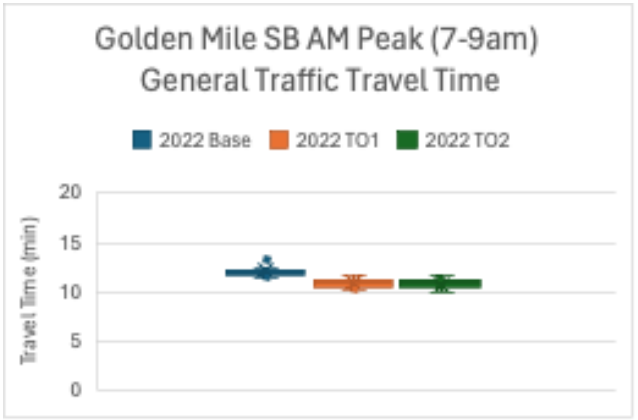


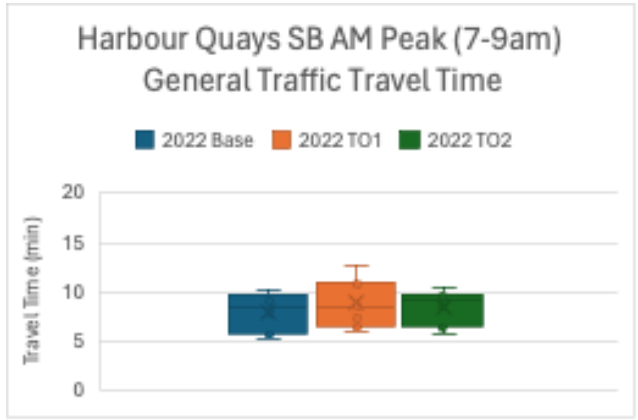
General Traffic
Result

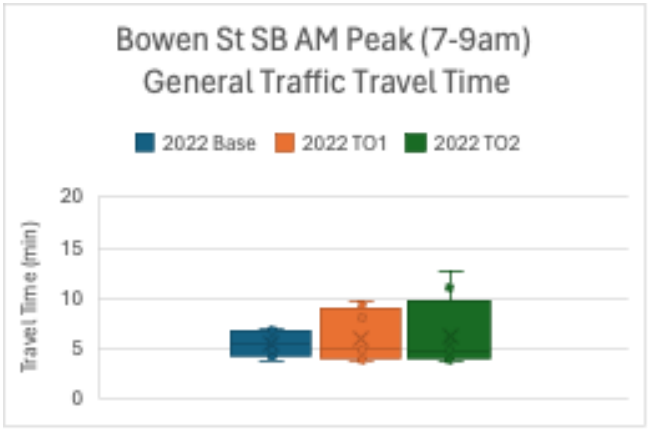
Effects

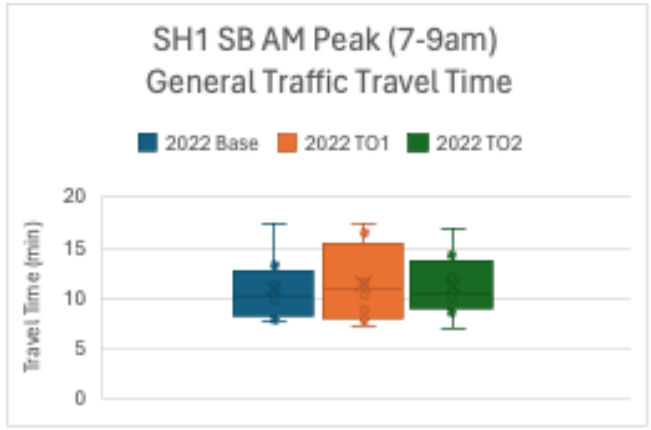
Impact on general traffic

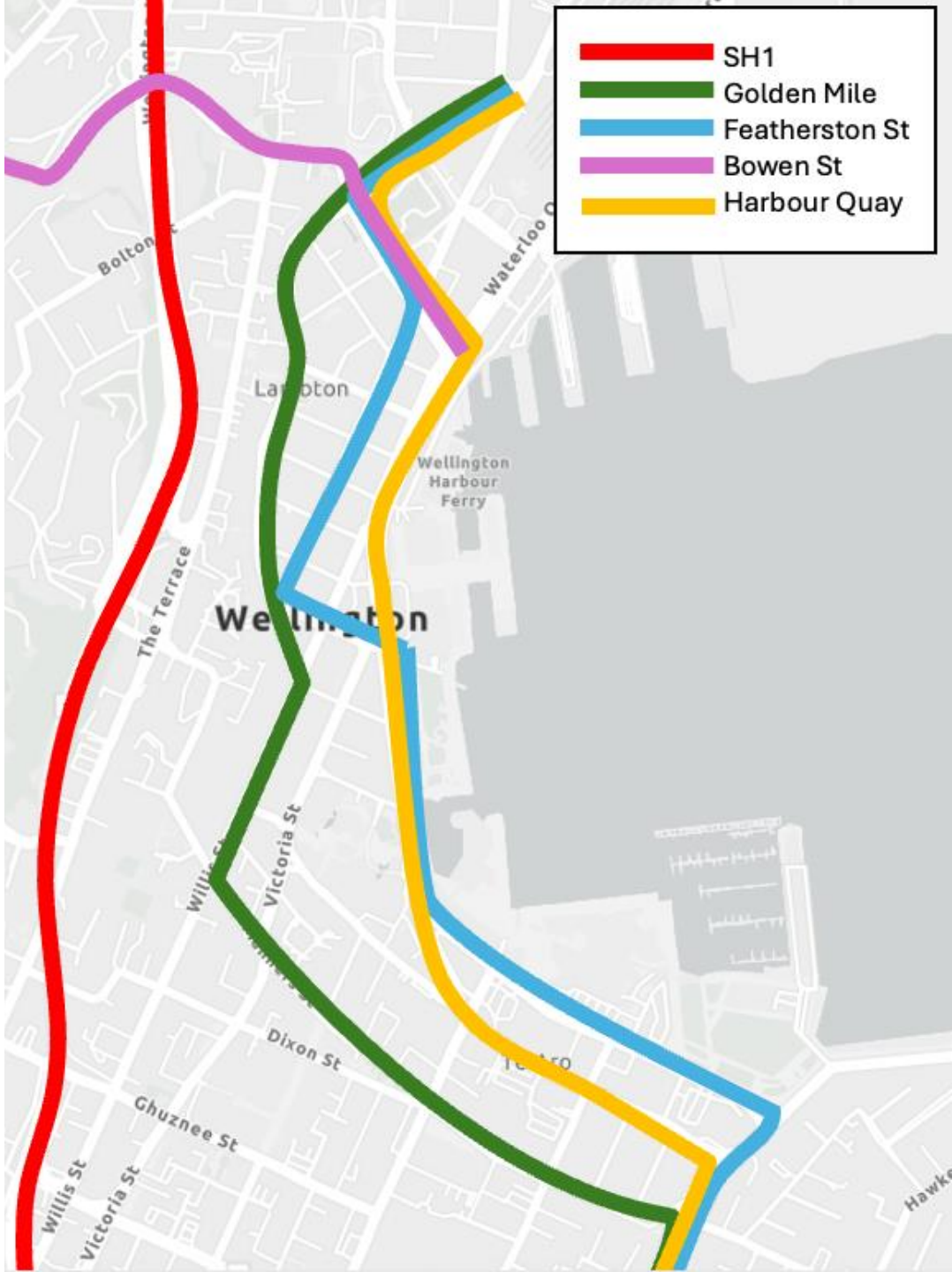






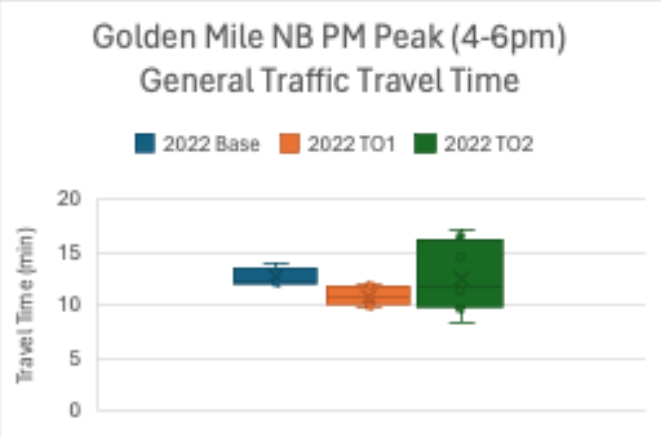


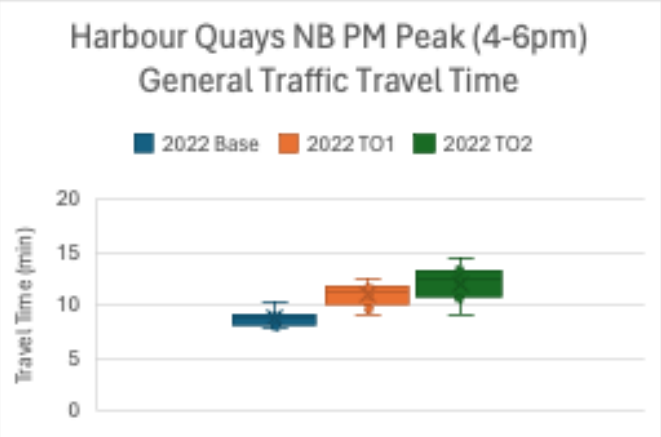


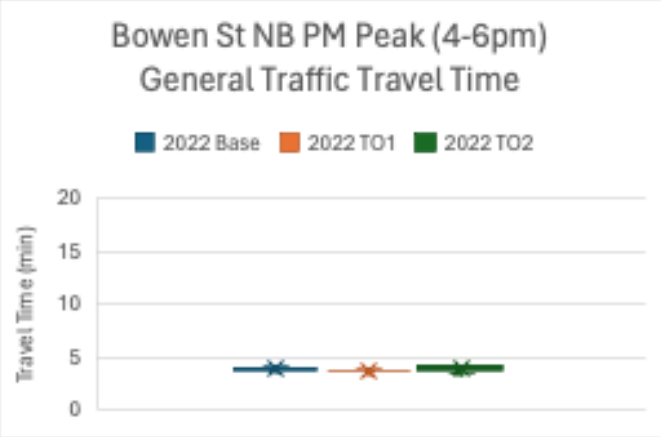


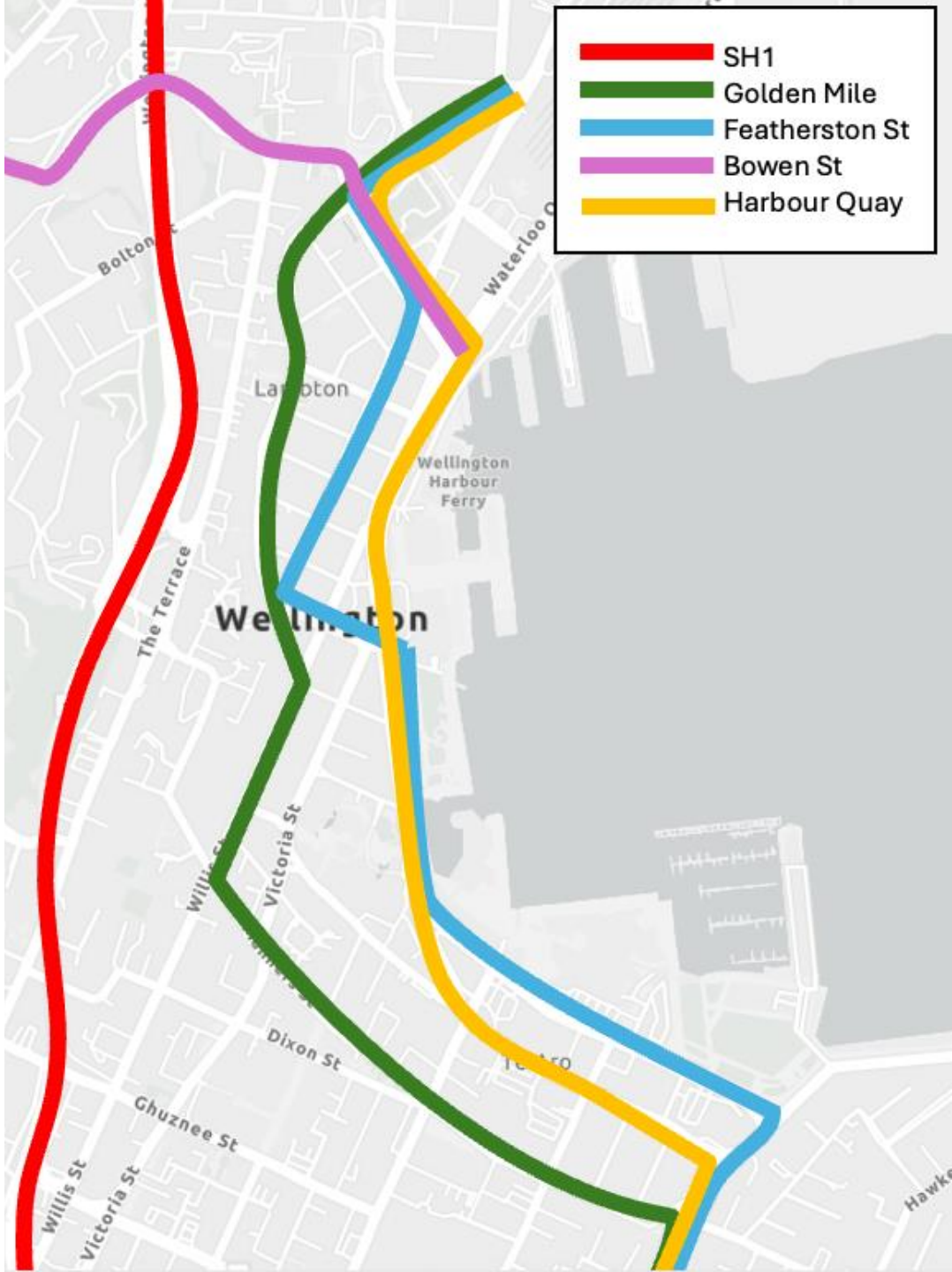
Effects

Impact on general traffic









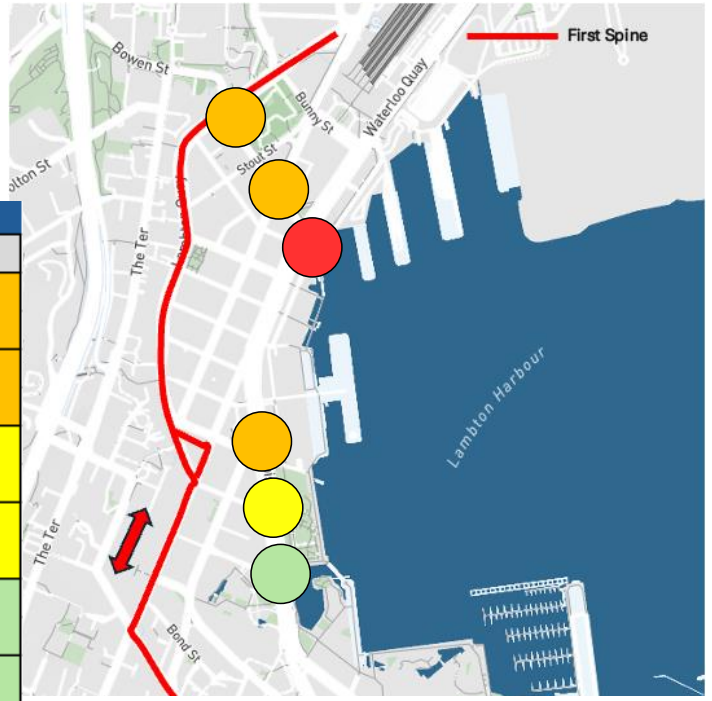
Effects

Impact on general traffic

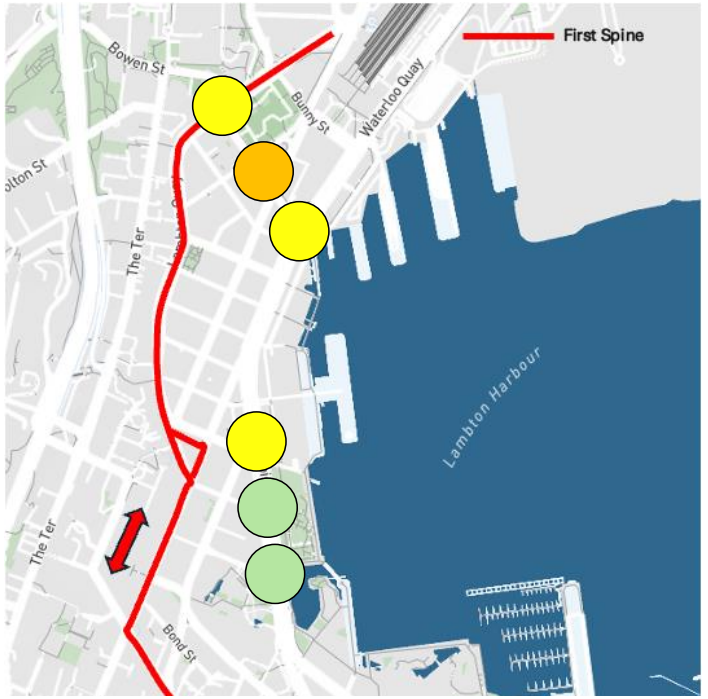
2022 BASE

	AM		PM	
site	average delay (sec)	LOS	average delay (sec)	LOS
Whitmore St / Lambton Quay	46	D	35	D
Whitmore St / Featherston St	42	D	38	D
Whitmore St / HQ	59	E	30	C
HQ / Hunter St	53	D	35	C
HQ / Willeston St	23	C	14	B
HQ / Harris St	16	B	18	B

AM



PM



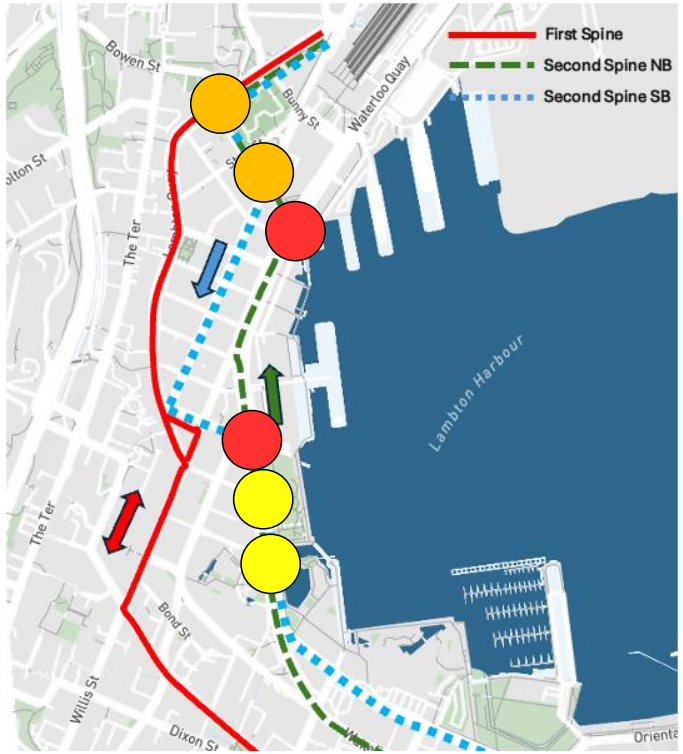
Effects

Impact on general traffic

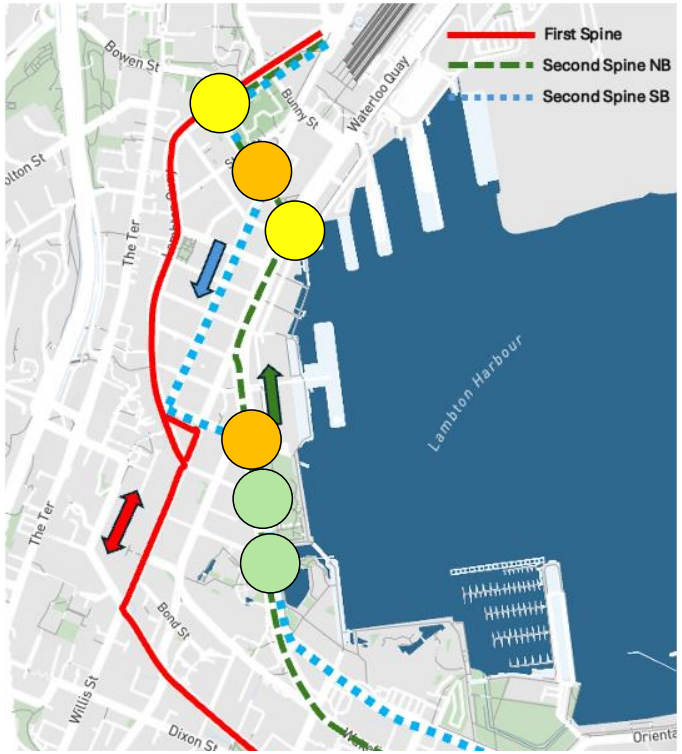
2022 T01

	AM		PM	
site	average delay (sec)	LOS	average delay (sec)	LOS
Whitmore St / Lambton Quay	42	D	33	C
Whitmore St / Featherston St	48	D	39	D
Whitmore St / HQ	61	E	34	C
HQ / Hunter St	58	E	40	D
HQ / Willeston St	28	C	16	B
HQ / Harris St	22	C	19	B

AM



PM



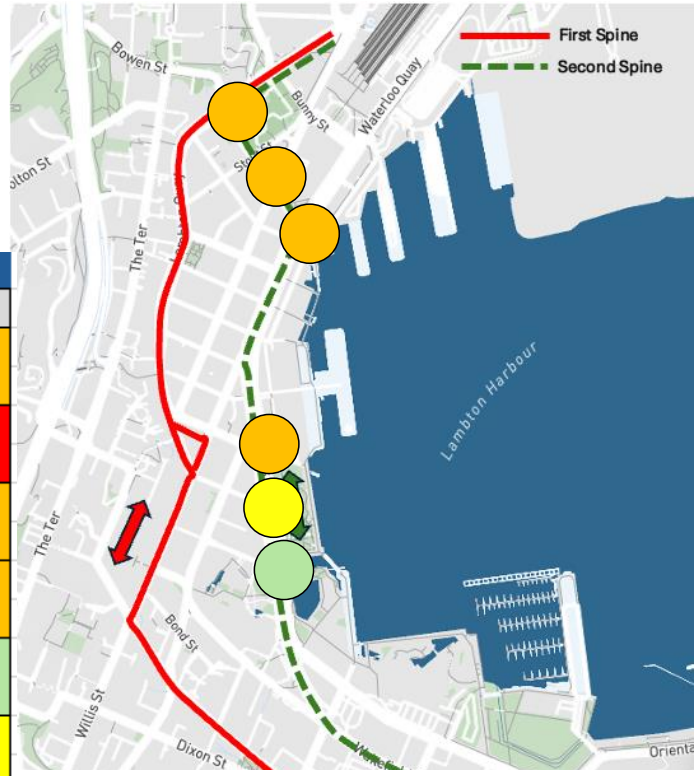
Effects

Impact on general traffic

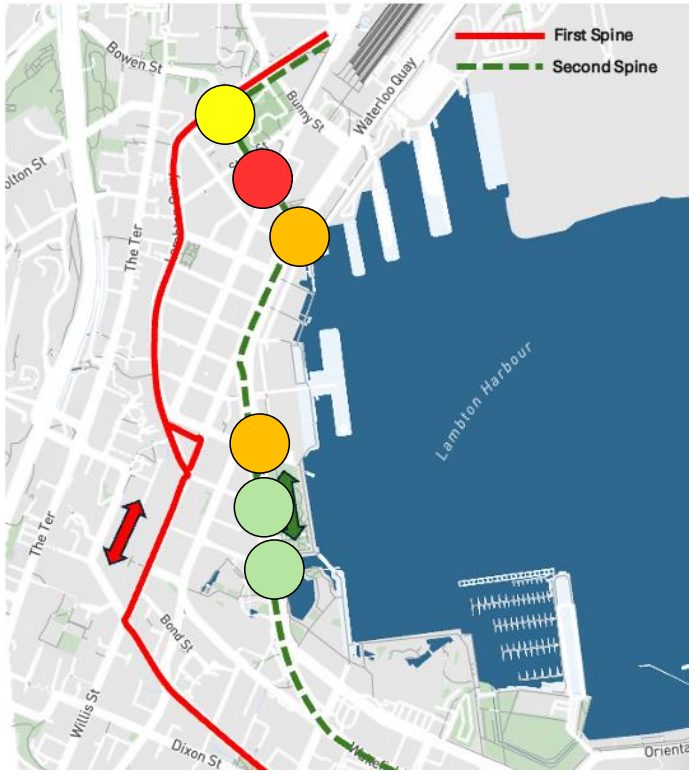
2022 T02

	AM		PM	
site	average delay (sec)	LOS	average delay (sec)	LOS
Whitmore St / Lambton Quay	39	D	35.12	D
Whitmore St / Featherston St	46	D	57	E
Whitmore St / HQ	49	D	41	D
HQ / Hunter St	45	D	36	D
HQ / Willeston St	24	C	16	B
HQ / Harris St	20	B	20	C

AM



PM



Effects

Impact on general traffic

2022 T01 VARIATIONS

WILESTON STREET

	AM	
site	average delay (sec)	LOS
HQ / Hunter St	55	D
HQ / Willeston St	26	C
HQ / Harris St	17	B

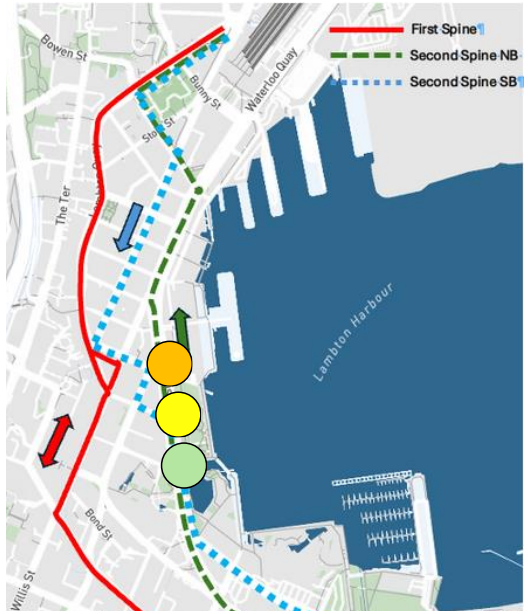
HARRIS STREET

HQ / Hunter St	54	D
HQ / Willeston St	24	C
HQ / Harris St	18	B

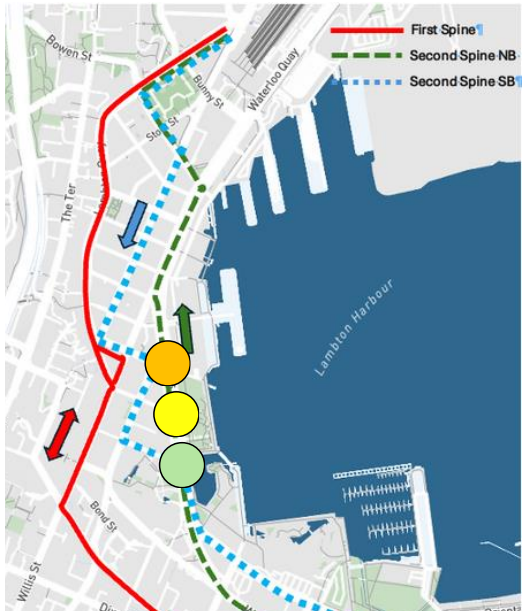
HUNTER STREET

HQ / Hunter St	58	E
HQ / Willeston St	28	C
HQ / Harris St	22	C

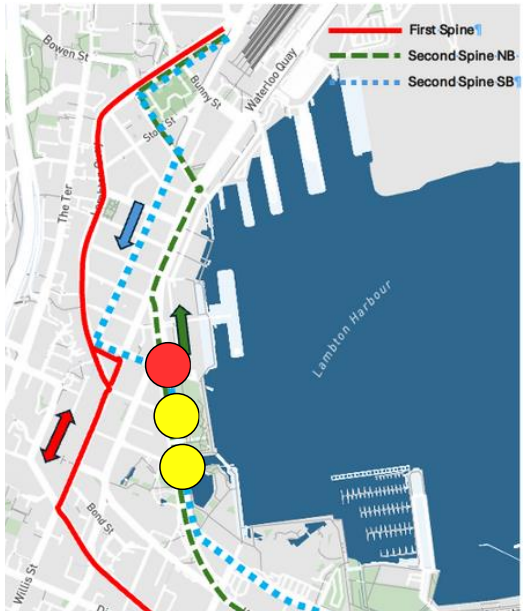
Wileston St



Harris St



Hunter St



Bus Travel Time and Reliability Methodology

Assessment and scoring considered:

- The likely performance of each corridor under forecast bus volumes.
- Comparative journey times (derived from modelling) of the three corridors assessed.
- Reliability – as represented by the spread and range of possible journey times (derived from modelling).
- Potential wider bus network impacts (positive or negative) of changes to journey times.

Bus Travel Time and Reliability Scoring

Option	Score	Key Rationale Summary
Do Minimum	-3	• Operational capacity of the Golden Mile will be significantly exceeded. • Journey time and reliability significantly compromised • Vehicle platooning likely to exceed 6 bus lengths in peak hour, with flow breakdown likely from over capacity. • Delays on the GM will affect headways on all north south routes, as schedules will need to be adjusted to account for increased journey times along the Golden Mile. • Ability to introduce additional services across the city will be limited by capacity constraints on the Golden Mile. • Under 2033 volumes, queue lengths will extend beyond the corridor and impact significantly the wider network. • Public transport capacity will be throttled back by the capacity limitations of the corridor.
TO1	+2	• Modelling suggest T01 will provide significant time savings relative to current conditions. • Modelling also indicate a significant reduction in the spread of journey times, which is reflective of a consistent, stable journey time. This translates to improved reliability (relative to current conditions) and allows for journey time improvements to be scheduled into the timetable. • Relative to T02, modelling suggests T01 has a slightly more stable journey time, reflective of improved reliability. • Reduced, stable journey times mean that the wider network may be rescheduled to capture improvements, resulting in overall improvement to the wider bus network.
TO2	+2	• Modelling suggest T02 will provide significant time savings relative to current conditions. • Modelling also indicate a significant reduction in the spread of journey times, which is reflective of a consistent, stable journey time. This translates to improved reliability (relative to current conditions) and allows for journey time improvements to be scheduled into the timetable. • Relative to T01, modelling suggests T02 has a slightly more stable journey time, reflective of improved reliability. • As the variance in journey times is relatively small between T01 and T02, the relative difference between these two options is not considered significant enough to warrant a difference in scoring. • Reduced, stable journey times mean that the wider network may be rescheduled to capture improvements, resulting in overall improvement to the wider bus network.

Bus Network Legibility Methodology

Assessment and scoring considered:

- Overall ease of understanding of network configuration
- Relationship between inbound and outbound services and ease of understanding the network layout
- Stop pairing and visual identification of route characteristics
- Relationship with broader network

Bus Network Legibility Scoring

Option	Score	Key Rationale Summary
Do Minimum	+2	• Rerouting of all services along the GM will further reinforce the paradigm that all n/s services may be accessed via the GM. • Establishes a primary bus corridor in the central city that will be easily understood.
TO1	-1	• Introduction of split route configuration will mean inbound and outbound services are accessed from different locations. • Stop pairing may not be undertaken on the same corridor, meaning customers utilise different corridors to access the same service, depending on direction of travel. • Overall the introduction of a split route configuration represents a slight decrease to network legibility from present state.
TO2	+1	• Introduction of a 2nd bi-directional corridor of the Quays will require customers to understand which corridor serves which routes. • Bi-directional nature of the corridor means stops may be logically paired within visual sight of each other, allowing customers certainty over point of access for inbound and outbound services. • Introduction of a 2nd bi-directional corridor reduces overall network complexity relative to current state by simplifying routing through central city.

Bus Network Capacity Methodology

Assessment and scoring considered:

- Net capacity of the network to accommodate design forecast demand
- Potential resilience of comparative routes
- Ability to accommodate the range of service vehicles
- Ability to provide skip stop or passing
- Potential to accommodate construction volumes

Bus Network Capacity Scoring

Option	Score	Key Rationale Summary
Do Minimum	-3	• All bus routes will be routed along the GM, significantly exceeding the operational capacity of the Golden Mile. • Corridor may cater for articulated vehicles, however volume of buses using the corridor under this scenario will reduce the effectiveness of such vehicles. • As all n/s services are confined to the corridor, any planned or unplanned disruption will affect all services. • In-line stops and two lane carriageway restrict all passing opportunities on the GM. • During construction activities, all or some routes will require rerouting from the GM and the absence of an alternative corridor will result in service disruption and impacts during construction.
TO1	+1	• Potential limited link capacity on Whitmore between Featherston and Stout. • Hunter street is an obvious pinch point for bus services, constraining bus volumes in the southbound direction due to a combination of signal delay and turning geometry which limits the throughput of buses at Hunter/Featherstone. • Hunter Street has limited stacking which constrains overall capacity. • Featherston does provide sufficient capacity for buses to pass. • Hunter street corridor will constrain the performance of the corridor under construction traffic volumes.
TO2	+2	• Limited link capacity on Whitmore between Featherston and the Quays, however the corridor provides additional stacking storage relative to T01. • T02 corridor avoids the bottleneck at Hunter. • Quays has wider cross section additional lanes permitting overtaking, and provides uniform capacity along the length of the corridor. • T02 has improved resilience relative to T01 as it has additional lane capacity to accommodate disruption.

Pedestrian Access and Movement Methodology

Assessment and scoring considered:

- Safe and convenient access between the route and city destinations
  - Strategic connections to city destinations (Golden Mile), streetscape quality, ped cover.
  - Strategic connections to city destinations (Waterfront), crossing locations, streetscape quality, ped cover
  - Lines of sight between stop pairs, to destinations
  - Activity and ped route patterns, memory map, city legibility
- Pedestrian level of service along routes
  - Footpath space (passing), streetscape quality, ped cover

Pedestrian Access and Movement Scoring

Option	Score	Key Rationale Summary
Do Minimum	+2	• Reinforces current situation with largely a single spine along G.Mile. Stronger sense of city legibility (cognitive map) is clearer. • Removal of Featherston St secondary spine and Brandon St stops reduces proximity and catchment to stops. • Pinch points at Willis St stop pair and Cuba St stop pair reducing LoS for peds. passing through – getting to destinations / between stops on Willis Street. • Enhanced ped space/ environ for other Lambton Quay stops. • Simple / not split route. Easier to understand. All buses on same road. • Aesthetic quality / shelter canopies and bldg. edges is high. • But inconsistent along full length – some higher quality, some less so. • Improved bus stop spacings re network stop distribution but longer walk distances for users (reduced number of stops).
TO1	-1	• Maintains a similar level of user experience of the CBD (i.e. buses along G.Mile + Featherston). However removal of Brandon St stops as more proximate and visual link between Featherston and G.Mile reduces perceptual integration and N-bound Quays route is distanced at 'city edge' - may be perceived as an edge / bypass route. • Overall, retention of Featherston St and GM reinforces some known PT arrangements (not a huge shift for users). • User clarity reduced due to 3 route corridors • Lines of sight reduced (loss of Brandon St stops). G.Mile stop and S-2f pair not visually linked, nor S-2f and N-2c. • Reduced proximity to user catchments. • N-bound Quays route provides some integration with waterfront, better acknowledges Queens Wharf • Canopy / continuous sheltered provision for peds. LoS of footpath along Featherston St for passersby is reduced • Crossing main roads introduces severance between routes.
TO2	-1	• Quays bi-directional spine is located at the 'city edge' / perceived as by-pass and not as integrated • Physically and visually distanced from G.Mile spine. • Perceptually T02 creates a secondary spine that reduces the clarity of a single G.Mile spine (current). • But, a simpler / clearer city cognitive map relative to T01. • Notable reduction in canopy cover / sheltered ped connections. Lack of activity. • Crossing of H.Quays road is barrier to pedestrian movement. • Personal safety experience reduced. • LoS of footpath is retained / neutral given likely user movements.

Pedestrian LoS and Bus Stops Methodology

Assessment and scoring considered:

- Pedestrian level of service at new bus stop locations
  - For T01 / T02 - S2f, S2k, N2c
  - For do-min all golden mile (Willis + Cuba pairs)
  - Pinch points
  - Cover (canopy vs shelter)
  - Environmental quality / activity

Pedestrian LoS at Bus Stops Scoring

Option	Score	Key Rationale Summary
Do Minimum	+1	• Some stops locations will become congested (Willis and Cuba pairs) but all other stop locations enhanced / reduced ped conflicts. • Stop spacings – increased walk journey between proposed stops. • Improved shelter design and settings for most stops.
TO1	+1	• Difference relative to Do-Min is a single stop. • Use of shelters vs bldg. canopy reduces potential overall sheltered capacity except for Featherston stop (under canopy). • Featherston stop may be congested due to footpath width and exacerbated during construction for G.Mile. • Whitmore St stops offer different N/S outcomes. N-stops may create ped user conflicts. • Whitmore stops offer good connectivity / access into Station and G.Mile.
TO2	+1	• Difference relative to Do-Min is a single stop. • Use of shelters vs bldg. canopy reduces potential overall sheltered capacity. • Stop S2-2K close proximity to busy traffic lanes. Less desirable ped environ. • Low level of ped conflicts due to local movement patterns. • Whitmore St stops offer different N/S outcomes. N-stops may to create ped user conflicts. • Whitmore stops offer good connectivity / access into Station and G.Mile.

Connection to Cycle routes Methodology

Assessment and scoring considered:

- Feasibility of creating future high quality bike networks connections through central city
- Expected number of people riding into the city with all main arterials and new regional connection to the Hutt Valley in place.
- Current level of service and environment for cycling along both routes.

Connection to Cycle Routes Scoring

Option	Score	Key Rationale Summary
Do Minimum	0	• Does not create additional conflicts with large buses on other corridors, which is currently free of them. • Congestion on Golden Mile will have limited impact on people riding with a new dedicated cycleway present.
TO1	-2	• Creates conflicts with bikes across both corridors (Featherston and Quays) limiting options for a high quality, connected route across the city. While bikes would potentially be able to use road space on one side from Hunter north, the fact buses then enter from Hunter South creates conflicts at the most important section. • Use of Hunter St entrance back to the Quays creates a conflict at a tricky point where bikes would have to merge right to get around. Also removes potential for modal filter here, as signalled in Te Ara Tatou for future network rationalization to support mode shift. • Jams Featherston St with buses (small block sizes), making negotiating the street more difficult for people on bikes. This is particularly problematic as Featherston is a key route through the city, which will increase in volumes post Te Ara Tupua and Thorndon Quay which directly feed into it so it's a natural continuation.
TO2	-1	• Leaves Featherston available for high quality cycling connection through city. • More aligned with Te Ara Tatou vision for future network circulation • NB: This would be +1, and rank top, if bus lanes were present 24/7 and we were wide enough at bus stops for bikes to get around. This would not only create a much safer environment for people on bikes most of the time, it would support a shift towards vehicle capacity being shifted to the state highway and a higher place focus with more balanced road space reallocation. This is a better stepping stone to a future more transformational layout.

Impact on General Traffic Methodology

Assessment and scoring considered:

- Assessment is based on Engineering Judgement considering Aimsun Model Results
- Consideration included (but not limited to) Travel Time, Travel Time variability, multi-modal impacts and intersections performance
- Minimal negative impacts on general traffic based on current traffic demand level (i.e. 2022 Base Model Year)
- Future traffic impacts are more significant due to the assumed high growth for both Bus Frequency and vehicle demand, the relative difference is expected to be similar between options
- Both options have negative impacts on general traffic performance
- TO2 performance slightly better than TO1, at the same time, the difference is not significant enough to differential scores between the two options.

Impact on General Traffic Scoring

Option	Score	Key Rationale Summary
Do Minimum	0	• It is assumed that the future Do Minimum scenario will have Golden Mile fully implemented with Bus Demand increases to 150 buses per hour per direction • For the purpose of comparing options between TO1 and TO2 under the current MCA, future scenario is not scored.
TO1	-1	• Travel time and variability has no significant difference among all three scenarios across the network • Wileston St connection is performing better than Harris St and Hunter St, at Jervois Qy • Whitmore St signals will be challenging to optimize especially for the RTs to Featherston St and/or Harbour Qy
TO2	-1	• Travel time and variability has no significant difference among all three scenarios across the network • Less risks for connection at Jervois Qy as 2nd Spine buses do not go via Featherston St; • Intersection performance is similar to Base

On Street Parking Methodology

Assessment and scoring considered:

- Assessment is based on Engineering Judgement and Local knowledge.
- The only difference between TO1 and TO2 is the Bus Stop pair near Panama St, where TO1 proposed Bus Stop on Featherston St resulting in 8 more parking spaces impacted than other scenario.
- There will be net losses of 25-35 Parking Spaces for both TO1 and TO2 scenarios, this is considered insignificant as the total paid parking spaces are about 2,000 in the CBD.
- The current proposed Bus Stop in front of Te Papa may not be able to fit considering the new Signal Ped Crossing, which it may result in additional spaces impacted, at the same time that, this will be the same between both scenarios.
- Wakefield St has 7 parking spaces been impacted, however, this is considered non-significant due to the existing clearway
- Golden Mile Traffic Resolution to be clarified to better understand the impact on Cam Tce Businesses.

On Street Parking Scoring

Option	Score	Key Rationale Summary
Do Minimum	0	• Assumed as per existing on the ground • No Impact against Base Scenario
TO1	-1	• 33 Spaces Impacted • Featherston St resulted in 8 additional spaces more than TO2, but not significantly enough to score a level down • If clearway is extended, the score will be likely to reduced to -2
TO2	-1	• 25 Spaces Impacted. • TO2 impact is slightly less than TO1, but not qualify a score level up. • The proportion of spaces is marginal considering the total paid carparks in the CBD is about 2000.

Business Impact Methodology

Assessment and scoring considered:

- Direct - Assess business impact on existing businesses close to new bus stops
- Indirect – Assess business impact on existing businesses in the wider central city area

Business Impact Scoring

Option	Score	Key Rationale Summary

Do Minimum	-2	• Direct impact – significant
		  ○ Pedestrian and vehicle crowding on Golden Mile -3
		  ○ Obstruction of shop frontages at bus stops -2
		  ○ Commuter congestion and reduced CBD travel -2
		• Construction impact - none
		  ○ No construction disruption or carpark loss 0
		• Indirect impact - minor
		  ○ No route benefit tied to major city developments in pipeline –1

TO1	+1	• Direct impact – significant
		  ○ Loss of parking for stops and bus movement, and impact of, is most significant for Featherston St businesses. -1
		  ○ No positive impact for current Featherston St businesses during peak hours 0
		  ○ Cruise bus stops impacted (S4A, N5A) with relocation or coordination. No clear replacement for N5A. -2
		  ○ A greater spread of commuters throughout the city, and increased business opportunities along pedestrian flow routes +1
		  ○ Accessibility to waterfront businesses is not improved for southbound visitors -1
		  ○ Improved accessibility by public transport to the Waterfront and city venues on Northbound route. +1
		  ○ Placemaking opportunity at Post Office Square +1
		• Construction impact - medium
		  ○ Some construction disruption for a short period and confined to new stops. -1
		• Indirect impact - minor
		  ○ Less pedestrian and vehicle crowding on Golden Mile +2
		  ○ Route well aligned with major city developments and investment +1

TO2	+2	• Direct Impact – significant
		  ○ Less pedestrian and vehicle crowding on Golden Mile +2
		  ○ Improved accessibility by public transport to the Waterfront and city venues on both routes. +1
		  ○ Placemaking opportunity at Post Office Square +1
		  ○ Minimal carpark loss, focused on bus stop locations -1
		  ○ Cruise bus stops impacted (S4A, N5A) with relocation or coordination. No clear replacement for N5A. – 2
		  ○ Southbound stop is 200m further from GM than the Featherston St stop, including across the 6 lanes of HQs. This may impact commuters choices' to travel into the city, and reduced commuters could negatively impact business spend during the day -2
		• Construction Impact - medium
		  ○ Some construction disruption for a short period and confined to new stops. -1
		• Indirect Impact - minor
		  ○ A greater spread of commuters throughout the city, and increased business opportunities along pedestrian flow routes +1
		  ○ Route well aligned with major city developments and investment +1

Construction and Constructability Methodology

Assessment and scoring considered:

- Ease of construction
- Transport network impacts during construction
- Pedestrian/bus user impacts during construction of bus stops

Construction and Constructability Scoring

Option	Score	Key Rationale Summary
Do Minimum	0	
TO1	-1	• Impact on transport network would be minimum if no Kerb Build outs are done • Traffic delays on Whitmore street with busses turning into Featherston Street • Bus shelters will have an impact on pedestrians, this can be managed by pedestrian diversions • Work hours will be limited as per the Code of Practice for working on the roads. • Consider Development Response Plan when construction is planned
TO2	-1	• Impact on transport network would be minimum if no Kerb Build outs are done. • Bus shelters will have an impact on pedestrians, this can be managed by pedestrian diversions • Work hours will be limited as per the Code of Practice for working on the roads. Extended hours may be considered depending on peak traffic hours • Consider Development Response Plan when construction is planned • This option is preferred from a corridor management perspective.

All Scores

		Do Min	T01	T02
Bus Travel Times and Reliability	Rowan	-3	2	2
Route Legibility	Rowan	2	-1	1
Network Capacity	Rowan	-3	1	2
Safe and Convenient Ped Access and Movements	Andrew	2	-1	-1
Pedestrian LoS at Bus Stops	Andrew	1	1	1
Does Not Preclude Future Routes or Connections to Existing Routes	Claire	0	-2	-1
Impact on General Traffic	Bob	0	-1	-1
On Street Parking Impact	Bob	0	-1	-1
Business Impact	Prak	-2	1	2
Construction and Constructability	Amanda	0	-1	-1

Weighting (only if needed)

		Project Team	Equal Criteria	Equal Category	Objective	Economic	Social	Bus Only
Bus	Bus Travel Times and Reliability	25%	10%	8%	40%	20%	20%	65%
Bus	Route Legibility	5%	10%	8%	0%	0%	5%	10%
Bus	Network Capacity	15%	10%	8%	20%	10%	10%	25%
Pedestrians	Safe and Convenient Ped Access and Movements	10%	10%	13%	10%	0%	15%	0%
Pedestrians	Pedestrian LoS at Bus Stops	5%	10%	13%	0%	0%	10%	0%
Bike	Does Not Preclude Future Routes or Connections to Existing Routes	5%	10%	25%	10%	0%	10%	0%
Effects	Impact on General Traffic	10%	10%	6%	20%	30%	15%	0%
Effects	On Street Parking Impact	5%	10%	6%	0%	10%	5%	0%
Effects	Business Impact	10%	10%	6%	0%	20%	10%	0%
Effects	Construction and Constructability	10%	10%	6%	0%	10%	0%	0%
		100%	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Wrap Up