

Appendix C

Planning Assessment (Incite Ltd)



Wellington Public Transport Spine Study

Option Evaluation Report

Planning Assessment

Prepared by Incite

for AECOM New Zealand Limited

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Prepared by Lindsay Daysh, Tom Anderson (Incite)

Reviewed by Lindsay Daysh, Andrew Foy (Aecom)

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Executive Summary

This assessment considers the social and environmental impacts of the options for the Wellington Railway Station to Kilbirnie public transport spine, as well as considering the consentability through an initial RMA assessment of the options. No specific environmental assessments such as urban design, acoustic effects, air quality or social impact have been commissioned or undertaken but wider planning based judgement has been used. As a consequence there have been some assumptions and this assessment is therefore necessarily high level.

The three options of Bus Priority, Bus Rapid Transit (BRT) and Light Rail Transit (LRT) are assessed in two parts. The 'Golden Mile' from the Railway Station to Courtenay Place and the southern section to Kilbirnie. The southern section itself consists of two alignments through to Kilbirnie via Adelaide Road, through Newtown then on to Kilbirnie (Southern Corridor), or via the Hataitai Bus Tunnel for Bus Priority or via the SH1 corridor Mount Victoria Tunnel, Ruahine Street and Wellington Road then via Kilbirnie Crescent (Eastern Corridor) for BRT or LRT.

Golden Mile

Bus Priority is considered straightforward from a consenting perspective as it builds upon the existing configuration through the Golden Mile, although it introduces the removal of general traffic from Lambton Quay South to Taranaki Street. Managing the servicing of retail properties that rely on loading zones will need to be considered.

The differentiator from a planning perspective is in relation to BRT and LRT options where at Lambton Quay North and Courtenay Place these facilities are located entirely on one side of the road for the core business part of the day with the other side being used for two way general traffic. The implication of this is that any stops or stations southbound will need to be located within the central median. In all other respects there is minimal social and environmental differentiation between the options as all are located within the existing road reserve without the need for additional land or for footpaths to be reduced in size. While there will be the need for intersection reconfigurations for the BRT and LRT options these are likely to be accommodated with limited effects on accessibility.

Southern Corridor

There has been an emphasis within this corridor of minimising widening of the road reserve or carriageway widths. This has the implication that demands for the available road space are constrained when you need to provide for the public transport, general traffic, cycle lanes in some locations and footpaths with any additional road space being used for parking. In addition for BRT and LRT in the Kent/Cambridge Terraces, Adelaide Road and Riddiford Street sections there is the need to accommodate stops or stations in the middle of the road where none currently exist. Additionally turning movements for general traffic need to be catered for.

In terms of matters such as pedestrian safety and accessibility, noise and visual amenity it is considered that these matters can be addressed and there is therefore no differentiation with all three options. It has also been assumed that any intersection widening can be appropriately designed with limited effects on the operation of adjacent land uses.

The most significant social and environmental issues are considered to be around the partial or total removal of existing parking either permanently or in peak hour. With bus priority the primary changes



are around the peak hour removal of parking. With BRT and LRT the loss of on street parking is much more significant and will have an effect on existing businesses that rely to some extent on on-street parking to operate particularly in Newtown Shopping Centre. In addition the visual nature of the changes proposed for BRT and LRT in Riddiford Street and in relation to widening of Constable Street for Bus Priority are significant issues to be weighed against the potential for PT to enhance vitality.

Overall the bus priority option has minimal social and environmental effects as it builds upon the existing configuration with the exception of Constable Street where even for bus priority there is a limitation on available road space. The utilisation of the Canal Reserve will also need to be considered in the context of the intent of the Town Belt deed. The implementation of BRT and LRT will have much more significant effects and are a major change to what is currently in place.

Eastern Corridor

As with the Southern Alignment, the Bus Priority Option builds upon the existing alignment through Mount Victoria, the bus tunnel, Hataitai and through to Kilbirnie. Social and Environmental effects for Bus Priority are considered to be minor although there will be the loss of peak hour parking in Kilbirnie Crescent.

BRT and LRT are considered to have much more substantial effects. For BRT the assumption has been made that buses will run with general traffic through the existing and/or duplicated Mount Victoria Tunnel. The major issue is encountered at Ruahine Street and Wellington Road where there is an additional requirement for road reserve and carriageway width over and above the four laning currently being progressed by the NZTA. The assessed option has the implication that more Town Belt will be required for the corridor, while at Wellington Road sufficient space is required for essentially 8 lanes of transport plus footpaths where, at its narrowest point, only two traffic lanes currently exist. There is also the total loss of parking on Ruahine Street that has reasonable utilisation particularly on a Saturday when the Hataitai Park sporting facilities are in fullest use.

In most respects LRT has similar effects to BRT. However there is a substantial difference between BRT and LRT at the Mount Victoria Tunnel where the option is to provide two new tunnel bores south of the existing tunnel and in addition to the duplicate tunnel proposed to the north. Further land on the Town Belt is required for the approach and additional land would be required on Paterson Street.

1 Introduction

The preferred Public Transport Spine can be assessed in two geographical parts.

- The “**Golden Mile**” which extends southwards from the Wellington Railway Station along Lambton Quay, into Willis Street, then east along Manners Street and into Courtenay Place.
- The southern and eastern section to Kilbirnie where there are two main alignments.
 - i) The first extending from Courtenay Place south via Kent Terrace (southbound), /Cambridge Terrace (northbound), around the Basin Reserve continuing south down Adelaide Road then along Riddiford Street past the hospital before turning east onto Constable Street, and over Crawford Road to Kilbirnie. This is known as the **Southern Alignment**.
 - ii) An alignment via the Basin Reserve, Paterson Street, the Mount Victoria Tunnel (taking into account the NZTA’s Mount Victoria Tunnel duplication project including combined use or a new bore), Ruahine Street, Wellington Road and onto Kilbirnie Terrace, is being considered for BRT and LRT options while the existing bus tunnel route through Hataitai is the alignment for Bus Priority, This is known as the **Eastern Alignment**.

The Golden Mile alignment (Railway Station to Courtenay Place) has been chosen as part of the medium list option evaluation which reduced eight options to the three options now being assessed. These are Bus Priority, Bus Rapid Transit (BRT) and Light Rail Transit (LRT). The Courtenay Place to Kilbirnie alignments to be evaluated also contain Bus Priority, BRT and LRT options and have been formulated and agreed by the Technical Working Group and endorsed by the Project Steering Group.

1.1 Purpose

This planning assessment considers the social and environmental impacts of the options for the public transport spine, as well as considering the consentability through an initial RMA assessment of the options. It should be noted that no specific environmental assessments such as urban design, acoustic effects, air quality or social impact have been commissioned or undertaken but wider planning based judgement has been used to identify actual or potential issues with the implementation of options. However there have been some assumptions made and this assessment is necessarily high level.

In addition no specific wider economic analysis has been undertaken. However matters such as loss of on street parking, impacts on freight delivery or changes in accessibility for businesses have been identified.

It is also recognised that there may be subtle variations to each option in terms of alignment detail that may be appropriate to assess in more detail at a later stage.

1.2 Process

Initially, the defined Corridors for the preferred route were examined with regard given to the District Plan zoning and existing land uses along the immediate margins of the road corridors. This was followed by an analysis of the PT options and their spatial requirements on the existing carriageway and road reserve corridors, and how these requirements were likely to socially, environmentally and



potentially economically affect the broader environment, the community and the land uses within the area of the identified corridors.

A brief comment is then made on high level consentability issues of component parts of each option with effects described as being minor or no effects through to moderate then to significant effects. Being any more specific than that has the risk of being too "fine grained" particularly without greater examination of the detailed options. In addition this assessment has not commented upon other effects or differences between options i.e. traffic operations, patronage, or costs which are considered in the primary technical reports.

2 Golden Mile

2.1 Land Use and Corridor Context

The introduction to the Wellington City District Plan identifies the function that the Golden Mile has and within the city under the heading¹ “Enhance the role of the ‘Golden Mile’ and ‘Cuba’”

The ‘Golden Mile’ refers to the main retail and commercial strip extending from the Cenotaph near Parliament Buildings, to the eastern end and entertainment hub of Courtenay Place. This ‘Golden Mile’ concept reflects the natural form of the Central Area, and helps structure people’s perceptions of the city and the way they move within it. Cuba Street is a premier pedestrian-based retail promenade that forms an important axis with the ‘Golden Mile’.

The ‘Golden Mile’ and ‘Cuba’ will be enhanced and supported by reinforcing their key retail function, promoting nearby office location, enhancing the pedestrian environment and improving the roll-out of quality public transport infrastructure.

In considering the existing environment it is clear that a vibrant, diverse and functioning city centre is a core objective for the Wellington community. Importantly the strategic function of the Golden Mile route as a public transport corridor and an area with high pedestrian use and amenity is also identified.

The Golden Mile options have been broken up into the following sections for analysis.

- Lambton Quay North – Railway Station to Brandon Street.
- Lambton Quay South – Brandon Street to Willis Street including the Hunter Street/Customhouse Quay triangle.
- Willis Street – Willeston Street/Lambton Quay to Manners Street.
- Manners Street – Willis Street to Taranaki Street
- Courtenay Place - Taranaki Street to Cambridge and Kent Terraces.

2.1.1 Lambton Quay North

The route starts at the Railway Station and the existing Lambton Bus Interchange. Heading south there is a wide carriageway between the former Government Buildings to the east and Parliament Grounds and the cenotaph to the west. This area is characterised by wide footpaths, a central planted median, bus only lanes and a single traffic lane in each direction.

From Bowen Street, Lambton Quay follows the former shoreline. The corridor is characterised by ground floor shopping along its entire length, with high rise offices along both sides. The corridor has bus lanes in both directions and one through traffic lane until Brandon Street where the southbound lane of Lambton Quay becomes bus only and all other traffic is diverted.

Generally there is a wide planted median, wide footpaths and minimal dedicated parking. Provision is made for bus lanes, taxi stands, loading zones and bus stops at a number of locations. In 2007² it was

¹ WCC District Plan section 12.1.3

observed that Lambton Quay has a pedestrian two way flow greater than 2000 people. This is the most concentrated number of pedestrians in the Wellington CBD area for the morning peak. Site observations were that the PM peak has more pedestrians but the pedestrian survey only covered the AM peak.

2.1.2 Lambton Quay South

This area is the heart of the CBD with ground floor retail and offices above. Several heritage buildings such as the Old Bank arcade are located in this area. Lambton Quay begins to narrow at Brandon Street. At Brandon Street southbound general traffic leaves Lambton Quay while buses divert off Lambton Quay, turn left onto Hunter and right onto Customhouse Quay. Two way public transport recommences at the Willis Street/Lambton Quay/Customhouse Quay intersection.

2.1.3 Willis Street

As with Lambton Quay, retail frontages dominate with offices above. There is also a high pedestrian flow and street trees have been provided as part of recent street improvements. Buses continue south on Willis Street via a dedicated bus lane while northbound buses share the lane with general traffic. There is limited on street parking/loading facilities on the west side of Willis Street only while the footpath width is wide.

2.1.4 Manners Street

As with other parts of the Golden Mile retail frontages dominate the street level. There are wide footpaths and limited on street parking available. Manners Street itself between Victoria Street and Cuba Street is relatively narrow. At Willis Street southbound buses divert onto Manners Street and onto dedicated bus lanes through the former Manners Mall to the Courtenay Place/Taranaki Street intersection. Northbound buses share Manners Street with general traffic to Cuba Street before a dedicated bus lane through to Willis Street.

The Manners/Courtenay Place/ Taranaki Street Intersection is wide with a combination of high traffic flows on Taranaki Street and high pedestrian and public transport usage on Manners Street and Courtenay Place. Land use is still dominated by retail on the ground floor but begins a transition to bars/ restaurants as it nears Taranaki Street.

2.1.5 Courtenay Place

A number of bars and restaurants have limited outdoor seating reflecting the entertainment focus of this area. In addition there has been extensive use of street trees within the median.

There are two lanes in each direction shared by public transport and general traffic. Consistent with its function, footpaths widths are wide, there is a raised central median and there is a combination of general parking, bus stops, loading facilities and taxi ranks.

2.2 District Plan Summary

In terms of the District Plan zoning, the route is primarily Central Area but also passes pockets of Open Space A zone along Lambton Quay between Waring Taylor and Johnston Streets (Midland Park

² Ngauranga to Airport Strategic Study – Technical Report 1”, page 34. Opus International Consultants, 2007.



and Te Aro Park) at the eastern end of Manners Street. The other key District Plan feature that requires consideration are Heritage Area overlays including Stout Street Area at the northern end of Lambton Quay; Old Bank Area at the southern end of Lambton Quay; Cuba Street Area around the Cuba/Manners Street intersection and the Courtenay Place Area between Tory Street and Cambridge Terrace.

2.3 Options

Three options have been considered for the Railway Station to Courtenay Place component of the Public Transport Spine. The assessment is a comparison between the existing situation described in the existing context described above and the specific option.

- **Bus Priority** – Essentially this is the existing situation with a series of bus lanes and bus only sections. The primary change is the implementation of bus lanes (peak hour, business hours or full bus only) southbound on Willis Street and the Lambton Quay South sections which are currently shared with general traffic.
- **Bus Rapid Transit** – In addition to the bus lanes southbound on Willis Street and Lambton Quay South, this option makes two fundamental changes. The first relates to the BRT system being located on the western side of Lambton Quay North and the potential for out of business time access with general traffic utilising the eastern two lanes full time. Similarly at Courtenay Place the northern two lanes are for BRT and with the southern two lanes being for general traffic. Consideration needs to be made of south bound locations for stops or stations for Lambton Quay North and Courtenay Place in the centre of the road.
- **Light Rail Transit** – In terms of physical legal road space the LRT option mirrors the BRT option. Additionally fixed overhead infrastructure will be required.

2.4 Effects consistent across all Options

For the three Golden Mile options the following effects are considered to be not applicable, neutral or apply across the entire route as opposed to a site specific location.

Road Reserve width - There is no requirement for private land to implement each option although careful attention will need to be made of tracking curves at the Hunter Street/ Customhouse Quay and Willis Street/ Manners Street intersections for LRT.

Carriageway width - All options can be implemented within the existing carriageway from footpath to footpath or with minor intersection improvements.

Noise and Vibration - All options have been assumed to have a similar noise profile and vibration effects although there will be differences between vehicle choice, diesel v electric and frequency of movements. However no specific assessment of relative noise profiles has been made. Additional effects such as vibration that could potentially be applicable for LRT, have been assumed to be appropriately engineered.

Air quality – This is dependent on vehicle type where electrically powered vehicles have no or minimal emissions. No assessment has been made of the relative impact on air quality.

Culture and heritage – None of the options affect existing cultural or built heritage.

Ecological resources – The only potential issue is the location of median stops or stations in respect of existing trees and landscaping.

Visual quality – The visual quality of the fixed infrastructure including bus stops stations and overhead wires for trolley buses or LRT is assumed to be consistent.

Pedestrian Safety – There are numerous opportunities throughout the route for pedestrians to cross midblock and away from existing signalised intersections or signalised pedestrian crossings. It has been assumed that there will be no additional restrictions to pedestrian movement such as barriers although in terms of detailed design such additional safety measures could be introduced. Conversely there may be opportunities for other mid-block crossings that would be assessed at the time of detailed option design.

There are however some differences in terms of effects primarily relating to accessibility and servicing. As has been considered for the Planning context the discussion can be split into geographical areas.

2.5 Comparison of Options

2.5.1 Lambton Quay North

The primary differences between the existing situation and reflected in the Bus Priority Option for this section is the change in road configuration with BRT and LRT options. This moves the PT spine activities to the western side of Lambton Quay with general traffic moving to the two lanes on the eastern side. In terms of existing facilities there will need to be replacement or relocation of western side loading and taxi parking elsewhere. Overhead trolley lines for BRT and the overhead LRT lines will need to be added to the western side of Lambton Quay presumably compensated for by the removal of redundant overhead trolley bus lines on the eastern side.

The location of bus stops/stations for BRT and light rail stations for LRT southbound will need to be considered in detail but will need to be in the central median and of a sufficient size to provide adequate cover. The central median is well developed with trees and amenity planting and as such there may be some loss of existing street amenity but the degree of effect is unknown.

Subject to the resolution of the detailed matters identified above in all other respects it is considered that all three options can be accommodated within the existing carriageway with minor environmental and social effects.

2.5.2 Lambton Quay South

The key change from existing is the removal of general traffic northbound along Lambton Quay for the three Bus Priority, BRT and LRT options. While this could be configured so that this operates peak hour, business hours or full bus or LRT only, there will be the loss of loading zones and the loss of accessibility for general traffic wishing to be in this part of the city either totally or for parts of the day although it should be noted that there is limited or general parking in this area. This has an implication for servicing of Lambton Quay properties, (particularly for example for couriers to retail properties), but it should be noted that the majority of the offices can be serviced off The Terrace, Boulcott Street and Gilmer Terrace.

However this is a consistent change between all three options and is also allied to network development as the same option of partial or total removal of general traffic applies to Willis Street



northbound. It has also been assessed that in relation to the overall network that such traffic can be reassigned to other streets without implications for the overall road network.

One aspect that will require further detailed attention is the southbound right turn manoeuvre on the corner of Hunter and Customhouse Quay for the LRT option as the tracking curve is quite tight. It has been assumed that this can be appropriately engineered without the need to widen either the carriageway or road reserve.

Taking into account the servicing issues that potentially apply to this section it is considered that there are minor social and environmental effects between the three options.

2.5.3 Willis Street

As with the Lambton Quay South section there is a consistent change that applies to all options being the partial or total removal of general traffic from the northbound lane and its replacement with a Bus Lane for Bus Priority and a dedicated lane for BRT and LRT. There are currently three loading zones on the western side of Willis Street north of Manners Street that are available for couriers or contractors needing to enter buildings in this part of the city. The Willis Street buildings on the western side have service access from Boulcott Street while the buildings on the eastern side are serviced from Victoria, Mercer or Bond Street.

Other physical changes are small and would relate primarily to the intersection configuration at the Willis/Boulcott/Manners Street intersection where detailed attention will need to be made of LRT tracking curves to ensure that private property or verandahs are not affected and therefore no carriageway or road reserve widening will be required.

2.5.4 Manners Street

The carriageway configuration for the Public Transport Spine in relation to all three options is primarily in place currently with the existing bus lane east bound and the bus lane westbound extending from Cuba to Willis Streets with shared use by vehicles and buses from Taranaki Street to Cuba Street. For all three options the assumption is that no general traffic will be catered for during at least the peak periods but this could be changed during detailed design particularly the need to access buildings. On the basis that this can be satisfactorily resolved then any additional adverse effects are no more than minor in relation to all three options.

2.5.5 Courtenay Place

With bus priority essentially the same as the existing situation the primary point of difference is that BRT and LRT options utilise the northern two lanes during at least the peak period while general traffic utilises the southern two lanes of Courtenay Place between Taranaki Street and Kent/Cambridge Terraces. While this will be a significant change for BRT and LRT, the effects are limited. In terms of existing facilities there will need to be replacement of northern side loading and taxi parking elsewhere and the loss of some parking. Overhead trolley lines for BRT and the overhead LRT lines will need to be added to the northern side of Courtenay Place compensated for by the removal of redundant overhead trolley bus lines on the southern side.

With both BRT and LRT south bound vehicles will be required to stop at bus stops or stations in the middle of the carriageway. It is unknown where exactly these would be located or the likely size



required. However for the purpose of this assessment it has been assumed that these facilities can be adequately accommodated and that there would be sufficient room to provide for shelter while waiting.

Subject to bus stops or stations within the median of the carriageway being adequately provided for and that intersection and pedestrian crossing points can be engineered appropriately, then the social and environmental effects of all three options compared to the existing situation is no more than minor.

2.6 Golden Mile Summary

The consistent change relating to the implementation of all three options is the removal of general traffic at least for part of the day in Lambton Quay South in Willis Street and all parts of Manners Street. While the general traffic can be reassigned to other parts of the city network this will have implications for current level servicing of shops and offices from the Golden Mile frontage.

The other differentiator from a planning perspective is in relation to BRT and LRT options where at Lambton Quay North and Courtenay Place these facilities are located entirely on one side of the road for the core business part of the day with the other side being used for two way general traffic. The implication of this is that any stops or stations southbound will need to be located within the central median. In all other respects there is minimal social and environmental differentiation between the options as all are located within the existing road reserve without the need for additional land or for footpaths to be reduced in size. While there will be the need for intersection reconfigurations for the BRT and LRT options these are likely to be accommodated with limited effects on accessibility.

3 Courtenay Place to Kilbirnie

Beyond the core CBD the Study has investigated options for Bus Priority, BRT and LRT from Courtenay Place to Kilbirnie.

- **Bus priority:** This has two elements.
 - 1) The southern section follows Kent and Cambridge Terrace, around the Basin Reserve, along Riddiford Street past the hospital, Constable Street and then Crawford Road to Kilbirnie.
 - 2) The eastern or Hataitai bus tunnel route that replicates the existing route via Elizabeth Street, Brougham Street and Pirie Street in Mount Victoria, through the tunnel then following Waitoa Road, Moxham Avenue, in Hataitai, Kupe Street and Hamilton Road then linking to Kilbirnie Suburban Centre via Kilbirnie Crescent.
- **Bus Rapid Transit:** As with Bus Priority this also has two spatial elements.
 - 1) The southern section that follows the same route as Bus Priority to the corner of Riddiford Street and Constable Street where BRT terminates and the configuration of Constable Street and Crawford Road remains the same.
 - 2) The eastern section where BRT leaves the Basin Reserve at Paterson Street then goes through the new tunnel being investigated as part of the Mount Victoria to Cobham Drive investigations, along widened Ruahine Street and Wellington Road to Kilbirnie Crescent and then on to Kilbirnie Town Centre at Rongotai Road.
- **Light Rail Transit:**
 - 1) The southern section follows the same route as BRT with Light Rail terminating in Newtown at the Riddiford/Constable Street intersection.
 - 2) The eastern section following the same alignment as BRT with the notable difference being that new tunnels are proposed south of the existing Mount Victoria Tunnel in addition to the duplicate tunnel being considered by the NZTA north of the existing tunnel. These LRT tunnels are required as there are fire and safety concerns with mixing LRT and general traffic.

As with the Golden Mile assessment the evaluation can be split into the following Geographical areas.

Southern Alignment - Kent and Cambridge Terraces, the Basin Reserve, Adelaide Road, Riddiford Street, and Constable Street/ Crawford Road

Eastern Alignment – From Courtenay Place to Kilbirnie via Mount Victoria and Hataitai via the Bus Tunnel (Bus Priority Only) and for BRT and LRT, Basin Reserve to Ruahine Street, Ruahine Street, Wellington Road and Kilbirnie Crescent.

4 Southern Alignment

4.1 Southern Alignment Land Use Description

The southern alignment is part of WCC's growth spine particularly Adelaide Road where there is a framework in place for increased density around a high quality public transport spine.

4.1.1 Kent and Cambridge Terraces

Kent/Cambridge Terraces are a one way pair containing three lanes of traffic parking and peak hour bus lanes. Cambridge Terrace runs northbound and Kent Terrace southbound. Land use either side is mixed with some offices, some apartments, car yards and showrooms, fast food and churches.

There is a significant central reservation known as the Canal Reserve which is zoned Open Space A where the zone is intended to provide passive and active recreational opportunities. This reservation also contains the statue of Queen Victoria and the Greek War Memorial. The Canal Reserve is subject to the 1872 Town Belt Deed³ where along with the Basin Reserve "for ever hereafter used and appropriated as a public recreation ground..." and .."no thoroughfare shall at any time be created across the said lands or any part thereof".

4.1.2 Basin Reserve

The Basin Reserve consists of four intersecting streets surrounding the cricket ground. This is a major intersection of north/south and east/west traffic. Currently the road has three lanes circulating clockwise with major intersections leading to the Mount Victoria Tunnel, Adelaide Road and to Buckle Street as well as to and from Kent and Cambridge Terraces.

It should be noted that the NZTA are undertaking a detailed assessment for an overbridge from the Mount Victoria Tunnel to Buckle Street with the intention of alleviating congestion created by the conflict between east/west traffic and north/south traffic. It is understood that consent documentation is due to be lodged with the Environmental Protection Authority in the near future.

In all cases and with all scenarios the grade separation at the Basin Reserve is part of the do-minimum base case. Surrounding land uses include several businesses some residential, three schools and the entrance to Government House.

4.1.3 Adelaide Road

Adelaide Road is identified by Wellington City Council as an area of potential change supporting Transit Supportive Development⁴. Currently there are two peak hour traffic lanes southbound with off peak parking while northbound there is a peak hour bus lane that is used for parking off peak. Turning movements are catered for by a flush central median. WCC have advised that it will implement peak hour bus lanes in the south direction in the foreseeable future. Land use in this area is mixed with petrol stations, car yards, some offices, light industry, some retail and servicing.

³ <http://wellington.govt.nz/~media/recreation/parks-and-reserves/files/townbelt-deed.pdf>

⁴ <http://wellington.govt.nz/your-council/plans-policies-and-bylaws/plans-policies/a-z-index/adelaide-road-framework>

At John Street/ Adelaide Road/ Riddiford Street is a recently reconfigured major intersection with hospital bound traffic veering left onto Riddiford Street. At the John Street intersection is a row of heritage shops on the eastern side with a new supermarket located on the south west corner.

4.1.4 Riddiford Street North (John Street to Rintoul Street)

From John Street to Rintoul Street, Riddiford Street is four lanes with two general traffic lanes each side with parking available on the eastern or Hospital side of the road and parking on the western side south of the hospital. The Hospital is the dominant land use on the eastern side while on the west is a mixture of retail shops, some offices and facilities such as Ronald McDonald House located there to be in close proximity to the Hospital.

4.1.5 Riddiford Street South (Rintoul Street to Constable Street)

From Rintoul Street south the road narrows as it passes through the core part of the Newtown Town Centre which contains primarily two storey shops with offices or residential on the first floor. There is one general traffic lane in each direction and kerb side parking either side. The Newtown Shops Area along Riddiford Street between Emmett and Constable Streets are defined as Heritage Areas in the District Plan.

4.1.6 Constable Street/Crawford Road

At the Newtown end between Riddiford and Daniell Street, Constable Street is part of the Newtown Town Centre with a mix of commercial and community buildings. From Daniell Street the land use is primarily residential however there are corner retail outlets at Owen and Coromandel Streets. Throughout the entire length there is one traffic lane in each direction with kerb side parking.

At the Town Belt defined by Alexandra Road, Constable Street changes to Crawford Road which flows downhill towards Kilbirnie Town Centre at Rongotai Road. Land use is primarily residential until Rongotai Road where retail activities dominate. There is a single traffic lane in each direction with parking available along some of the length of Crawford Road depending on width and proximity to intersections.

4.2 Comparisons of Options – Southern Alignment

4.2.1 Kent and Cambridge Terrace

With Bus Priority the primary change from existing is the removal of the parking lane on Kent Terrace that adjoins the central median. Peak direction bus and shared cycle lanes allows for the retention of one lane of centre parking on Cambridge Terrace. Off peak the kerb side bus lanes would also become parking. This is very much the existing situation and as such there are limited effects on the social or physical environment.

For both BRT and LRT all parking is lost with the current parking adjoining the central median on both Kent and Cambridge Terraces being used for the PT corridor although the kerb side lane on the western side of Cambridge Terrace could be used for parking if it is not required for general traffic. The additional implication is that stops or stations along this section need to be from the central median. While not a planning or environmental matter it should be noted that for the BRT option assessed, bus stops will need to be carefully designed to provide for boarding and alighting. There is also widening required of the carriageway of up to 3 metres on Kent Terrace between Elizabeth Street

and Courtenay Place and consequential intersection improvements at Elizabeth Street. The current land uses on the immediate corners of the Kent/Elizabeth intersections are both open ground level car parks. As such the impact on these properties may be limited to a loss of on-site parking spaces and no buildings will be affected.

In relation to the use of the central median the location, size and configuration of the stops or stations is unknown but there could be an impact on the current planted central median that has a high degree of amenity. However a dedicated cycle lane adjoining the kerb side can be provided which can be seen as a positive.

The car parking spaces along Cambridge and Kent Terraces are used as spill over from CBD destinations (particularly Courtenay Place) and also for users of the business along the margins of this section. Loss of spaces will mean an increased competition for remaining car parks and potentially spill over into the Mount Victoria residential area on street parking spaces, as well as streets such as Tennyson, Lorne, and College Streets.

Overall the change to the carriageway configuration for BRT and LRT are significant in relation to what exists presently and there is a reliance on the utilisation of the Canal Reserve which is zoned Open Space A. Structures associated with Public Transport such as shelters or stations would trigger a resource consent. Therefore from a social and environmental perspective the BRT and LRT options have more significant effects than bus priority although considerable more detailed work would be required to determine the extent of such effects.

4.2.2 Basin Reserve

The current Basin Reserve Bridge design provides for a bus only lane in the right hand lane of the carriageway around the Basin Reserve. This will require bus only phases at the intersections with Adelaide Road and Kent/Cambridge Terrace to allow buses to travel from the left hand lane on the approach roads to the right hand bus lane around the Basin Reserve.

For the bus priority option this proposed configuration has been adopted by the PTSS. For BRT and LRT alternative options are proposed providing for public transport along the centre of the corridor on the approach roads. The vehicle tracking curves for LRT have been assessed and the required width is available to provide for movement around the Basin Reserve for both the Mt Victoria and Adelaide Road alignments. The NZTA have also confirmed that LRT can be provided without requiring redesign of the overbridge piers/columns.

In terms of social and environmental effects of implementation of the Public Transport Spine are limited and have been designed in conjunction with the Basin Bridge project. Therefore on this basis the effects of the differences between the options are no more than minor.

4.2.3 Adelaide Road

The Bus Priority option has limited effects with the introduction of a peak hour south bound bus lane and it is understood that WCC is progressing implementation. Car parking is currently available along both sides of Adelaide Road, although during peak periods these lanes become a dedicated Bus Lane.

For BRT and LRT options there will be the total loss of all on street parking and this will have an implication for those businesses that do not have carparking on site. However the effect is considered

minimal to some properties as due to the set back of buildings from the road, businesses do provide an amount of off street parking in front or on the side of their premises. However there are a number of properties where the buildings are closer to the road and have none or more limited parking. In addition alternative on street or public off street parking locations are not available so the effects on some businesses will be more noticeable.

Apart from carparking the fundamental change for BRT and LRT is that assessed options are to be located in middle of the road with widening required to allow for station platforms where required. This will require attention as options are developed.

A further issue for BRT and LRT is the loss of the central median that currently is in use and provides the ability to right turn into individual property accesses. Accessibility will need to be provided particularly at the intersections with the side roads. These options have some significant effects and represent a change to what exists currently. This is in terms of availability of on street parking, property accessibility through the loss of the central median and in terms of the location of the stops/stations in the middle of the road.

4.2.4 Riddiford Street North of Hospital

There are two distinct sections of Riddiford Street reflecting the change in character in the road between John Street and the Hospital and the Hospital and Constable Street. The Mein Street intersection is also the point where the BRT and LRT options change from two dedicated lanes to one. For Bus Priority there is the loss of peak hour parking on one side of the street although it should be noted that there is none currently available on the western side north of and opposite the hospital entrance.

For BRT and LRT options the passenger transport spine runs down the middle of the road and there would be kerb side cycle lanes introduced. Stations or stops would be required in the middle of the road and could be staggered to save road space. These facilities will need to be covered and of a sufficient size to cater for public transport patrons.

There is also the loss of all kerb side parking and of particular note are those that are located directly in front of the Hospital that have got good usage for short term visitors not wanting to enter the controlled parking environment within the Hospital Precinct. In addition any carriageway widening required from Adelaide Road to the Hospital entrance may affect heritage values or footpath widths.

Riddiford Street in this section is generally wide and even though the BRT and LRT options are located in the middle of the road the loss of on street parking will be a significant factor to those businesses in the general location that do not have off street parking available. The Hospital itself has a large amount of parking available for its staff and visitors however there are limitations in the availability of publicly available parking elsewhere. Overall there is considered to be moderate social and environmental effects in this section of the public transport corridor.

4.2.5 Riddiford Street South of Hospital

This area is the heart of the Newtown Shopping centre a long established and well utilised retail and commercial area. At Mein Street, Riddiford Street narrows to one traffic lane in each direction plus kerb side parking. Parking between Rintoul and Constable Streets is inset between amenity paving and landscaping.

The Bus Priority option implements peak period bus lanes by removing parking from one side of the road in a peak direction. There would also be the requirement to carry out a small amount of carriageway widening due to constrained widths. By making the kerb side parking peak hour bus lanes, the implication is that there would be the loss of some of the existing amenity paving and planting. There would also be the loss in the peak hour of some on street parking in an area that has limited availability of off street parking and there is significant demand.

For BRT and LRT the effects are more substantial as there would be the total removal of at least one parking lane or potentially both if staggered stations are not introduced in the middle of the road. For LRT this would be operated as a contra-flow LRT lane.

The loss of parking will have an impact the shopping area between Rintoul and Constable Streets. Parking is already at a premium in this part of Newtown and reducing it will impact on the access to this shopping area. There will also be the loss of some street planting and hard landscaping with the removal of parking. Overall these options will produce a significant change within the Newtown Town Centre particularly with the reconfiguration of the road and the loss of parking. Alternatively a more frequent dedicated PT service may encourage positive land use change regardless of the loss of existing parking. However, overall the social and environmental effects if these options are to be progressed are considered to be significant.

4.2.6 Constable Street/ Crawford Road

For LRT the use of this section of road in Newtown does not apply. For BRT buses would travel amongst the general traffic as they do currently though to Kilbirnie.

However in relation to Bus Priority there is the implementation of kerb side bus lanes that revert to parking outside of peak periods and no central median. There is also carriageway widening of up to 2.2 metres required, the potential need for road reserve widening of up to 1.6 metres and the corresponding need to widen the Riddiford, Daniell, Owen, Hiropi and Coromandel Street intersections. There are no changes required on Crawford Road through to Kilbirnie from Coromandel Street to implement bus priority.

The widening of the Constable Street carriageway and road reserve and the resulting loss of on street parking even in peak periods will have a significant social effect on the Constable Street residential dwellings. The majority of these houses were built in the early 20th century and generally do not have off street parking spaces. Residents are likely to be reliant on the road reserve to park their private vehicles and any loss of full time access will have a significant impact for some residents. The area is fairly densely developed and any opportunity to create off street parking is limited. In relation to the Constable Street part of the Newtown Suburban Centre the loss of peak period parking will have an unquantifiable but probably minor effect on the operation of the shopping centre.

As this analysis is at a high level stage and there is an absence of detailed design there may also be small impacts on private property or a reduction in footpath width. This would be seen as a negative in a highly constrained part of Newtown.

Overall the implementation of Bus Priority is considered to have moderate to significant social and environmental effects.



4.3 Southern Alignment Summary

There has been an emphasis within this corridor of minimising widening of the road reserve or carriageway widths. This has the implication that demands for the available road space are constrained when you need to provide for the public transport, general traffic, cycle lanes in some locations and footpaths with any additional road space being used for parking. In addition for BRT and LRT in the Kent/Cambridge Terraces, Adelaide Road and Riddiford Street sections there is the need to accommodate stops or stations in the middle of the road where none currently exist.

In terms of matters such as pedestrian safety and accessibility, noise and visual amenity it is considered that these matters can be addressed and there is therefore no differentiation with all three options. It has also been assumed that intersection widening at for example Elizabeth Street and at John Street/Riddiford Street can be appropriately designed with limited effects on the operation of adjacent land uses.

However the most significant social and environmental issues are considered to be around the partial or total removal of existing parking either permanently or in peak hour. With bus priority the primary changes are around the peak hour removal of parking. With BRT and LRT the loss of on street parking is much more significant and will have an effect on existing businesses that rely to some extent on on-street parking to operate. In particular there are concerns about the vitality of Newtown Shopping Centre and the visual nature of the changes proposed for BRT and LRT in Riddiford Street and in relation to widening of Constable Street for Bus priority. Conversely development of a high quality PT spine may assist in bringing people and activity to the area.

Overall the bus priority option has minimal social and environmental effects as it builds upon the existing configuration with the exception of Constable Street where even for bus priority there is a limitation on available road space. The utilisation of the Canal Reserve will also need to be considered in the context of the intent of the Town Belt deed. The implementation of BRT and LRT will have much more significant effects and are a major change to what is currently in place.

5 Eastern Alignment

5.1 Eastern Alignment Land Use Descriptions

5.1.1 Mount Victoria through Hataitai to Kilbirnie

This section applies to the Bus Priority option only and follows the existing bus routes via the single lane Hataitai Bus Tunnel. In Mount Victoria land use is almost entirely residential until Pirie Street which meets the bus tunnel at the Town Belt. At Hataitai the alignment is residential until Moxham Avenue where the Hataitai shopping centre is located then along the residential part of Moxham Avenue, Kupe Street and a short length of Hamilton Road. The corridor then crosses Cobham Drive and travels along Kilbirnie Crescent adjoining Kilbirnie Park and the Regional Aquatic Centre before entering Kilbirnie Town Centre at Rongotai Road.

The alignment is one lane in each direction with the exception of the bus tunnel and generally contains parking both sides of the streets.

5.1.2 Paterson Street /Mount Victoria Tunnel to Ruahine Street

The BRT and LRT options have both assumed that they can travel via tunnel to Ruahine Street. It should be noted that the NZTA is currently confirming a preferred option for the Mount Victoria Tunnel duplication north of the existing tunnel including the feasibility of running buses through the tunnel.

Paterson Street is a very busy road being part of State Highway 1. It has two lanes eastbound merging to one for the tunnel while westbound a single lane diverges to two lanes at the Basin Reserve. On the eastern side of the tunnel portal there is a short length of two way highway before Ruahine Street.

Land use adjoining Paterson Street is residential to the north with St Marks School and Wellington College being located to the south while Wellington East Girls College is located on top of the existing tunnel. The tunnel itself runs beneath the Town Belt while to the east of the tunnel portal to Ruahine Street at Taurima Street adjoining land use is also Town Belt.

5.1.3 Ruahine Street

Also part of State Highway 1 Ruahine Street travels southbound from Taurima Street to Wellington Road. It currently operates as a single lane in each direction with kerbside parking only available at certain locations on the eastern side with none available on the western side. As part of the Mt Victoria tunnel upgrade, the NZTA are presently investigating the widening of Ruahine Street. This would provide two general traffic lanes in either direction with additional lanes on the approaches to intersections.

To the west is the Town Belt that contains a number of different sporting facilities including the primary netball courts for the city, a velodrome and various other buildings, club houses and playing fields e.g. for softball. These are all located off the main access opposite Goa Street. At the southern end of Ruahine Street is the Badminton Hall with its own dedicated parking.

To the east are residential properties located off Moxham Avenue. A small number have access directly to Ruahine Street but all have alternatives. Also included to the east is the large Latter Day Saints Church.

5.1.4 Wellington Road

Like Ruahine Street the NZTA is also proposing widening Wellington Road from the intersection with Ruahine Street to two lanes in each direction. This currently operates as a single lane in each direction until Moxham Avenue where the single lanes diverge to two eastbound while in the opposite direction two lanes merge to one. Land use is residential but there is no parking either side.

5.1.5 Kilbirnie Crescent

At the Cobham Drive Intersection the BRT and LRT alignments follow the existing bus alignment alongside Kilbirnie Park to Rongotai Road. There is parking both sides of the road and a single lane in both directions. Land use is residential on the western side with Kilbirnie Park, the Regional Aquatic Centre, Kilbirnie Indoor Sports Centre and the library located on the eastern side.

5.2 Comparison Of Options - Eastern Alignment

5.2.1 Bus Tunnel Option

This only applies to the Bus Priority option and utilises the existing route through Mount Victoria and Hataitai to Kilbirnie. There are very few changes made to the existing configuration and as such very few social and environmental effects.

5.2.2 Paterson Street to Ruahine Street

As has been stated the NZTA is currently considering options for a new tunnel north of the existing Mount Victoria Tunnel linking The Basin Reserve via Paterson Street to Ruahine Street. It is not the purpose of this analysis to comment on the social and environmental effects of that project other than to note that there will be significant but effects of a short duration through tunnel and link roads implementation.

The BRT option will not require any additional capacity through the tunnels. Buses will travel through the existing and new tunnels with general traffic. Access to and from the Basin Reserve will be at grade with general traffic. Therefore the additional environmental effects of BRT using existing and proposed tunnel capacity will be no more than minor.

The LRT option will require additional capacity to be provided through additional tunnels, this may be one or two tracks depending on services, costs and available width and should be investigated further if LRT is preferred. Tunnels may include a pedestrian path as the LRT would operate with no fumes. Access to and from the Basin Reserve would interact with local traffic only and would be controlled through traffic signals to give LRT priority.

However there are issues with the implementation of this option in that it requires additional land from the Town Belt to the south of the existing tunnel whereas the proposed tunnel duplication is to the north. Paterson Street may also need to be widened to the south affecting the playing fields of Wellington College and possibly St Marks School. The LRT option is therefore considered to have significant effects in this location.

5.2.3 Ruahine Street

As part of the Mt Victoria upgrade NZTA are presently investigating the widening of Ruahine Street. This would provide two general traffic lanes in either direction with additional lanes on the approaches to intersections. The preferred option was the subject of consultation in July and August 2011 and it is understood that this option is being progressed by the NZTA.

In terms of the Public Transport spine, bus priority utilises Moxham Avenue so Ruahine Street is not applicable however buses could run down the kerb side lanes of a widened four lane road if necessary.

The BRT option and LRT options are more significant in terms of effects. For BRT there is a bus lane on either side of the Ruahine Street corridor. This would widen the road to three lanes in each direction, widening the road reserve and carriageway by approximately seven metres over and above that proposed for widening by the NZTA. The major impact of the assessed options would be on the Town Belt, the Badminton Hall and at the intersection with Wellington Road as widening on the eastern side would affect a number of residential properties. As an alternative to full bus lanes, bus priorities could be provided at intersections only.

The LRT option proposes dual LRT on the western side of the Ruahine Street Corridor. This would widen the road reserve and carriageway by approximately four metres. The major impact would be on the Badminton Hall and at the intersection with Wellington Road. There would also be the introduction of new overhead cables where none exist at present.

With both BRT and LRT the additional land required for its implementation means that there is additional encroachment into the Town Belt which is protected through the Town Belt Deed. The Town Belt in this location is a well utilised collection of city wide and regional facilities and there may need to be some reconfiguration of facilities if widening is to occur or there will need to be retaining walls. As stated under the Mount Victoria Tunnel commentary above, the LRT option utilises an alignment south of the existing tunnel requiring further encroachment onto the town belt.

From a planning, social and environmental perspective the effects of both BRT and LRT options are considered to be significant.

5.2.4 Wellington Road

Wellington Road also forms part of the NZTA's Mount Victoria to Cobham Drive project part of the Wellington Roads of National Significance and through that project there is a proposal to widen the road to provide three lanes in each direction. It should be noted that this proposal has not been subject to any formal consent process and if pursued will have significant effects to the existing residential environment.

To implement BRT and still maintain three lanes of general traffic further widening is required of some 6.6 metres over and above the Wellington Road widening already proposed as part of the NZTA project. The LRT option also requires widening of some 3.6 metres and it assumes that there will only be one dedicated LRT lane. Apart from new overhead power cables the remaining effects are similar to those applicable to the BRT option.

The area is highly constrained by existing land use already and it is considered that the additional width will be a significant change to that which exists and have significant effects.

5.2.5 Kilbirnie Crescent

Bus Priority improvements for this section includes the implementation of peak hour bus lanes with the consequential peak hour removal of parking in both directions. There is a small reduction in the width of the footpath on both sides to accommodate these changes.

For BRT carriageway widening is required with two way service located on the eastern or Kilbirnie Park side of the road, a new footpath between the BRT lanes and the general traffic and the permanent loss of parking on the eastern side. The LRT option is single track also located on the eastern side with the footpath being located between the LRT lane and the southbound general traffic lane and also resulting in the loss of eastern side parking

The main issue is around the partial or total loss of parking. It should be noted that there is off street parking for the Kilbirnie Park, the aquatic centre, the bowling club and the Kilbirnie Indoor sports facility but this is heavily utilised on the weekend as is the on street parking on Kilbirnie Crescent. The Bus Priority option would still make this parking available although there will be a peak hour loss of on street parking on the western side in an area where a number of houses do not have off street parking.

The only other issue is that LRT requires new overhead lines but this would be on the eastern side and would replace the existing overhead trolley bus wires.

For both LRT and BRT it is considered that the loss of parking is of a minimal effect week days and of a more significant affect when Kilbirnie Park is being heavily utilised.

5.3 Eastern Alignment Summary

As with the Southern Alignment, the Bus Priority Option builds upon the existing alignment through Mount Victoria, the bus tunnel, Hataitai and through to Kilbirnie. Social and Environmental effects for Bus Priority are considered to be minor although there will be the loss of peak hour parking in Kilbirnie Crescent.

BRT and LRT are considered to have much more substantial effects. For BRT the assumption has been made that buses will run with general traffic through the existing and/or duplicated Mount Victoria Tunnel. The major issue is encountered at Ruahine Street and Wellington Road where there is an additional requirement for road reserve and carriageway width over and above the four laning currently being progressed by the NZTA. The assessed option has the implication that more Town Belt will be required for the corridor, will have a significant effect on the Badminton Hall at Ruahine Street while at Wellington Road sufficient space is required for essentially 8 lanes of transport plus footpaths where, at its narrowest point, only two traffic lanes currently exist. There is also the total loss of parking on Ruahine Street that has reasonable utilisation particularly on a Saturday when the Hataitai Park sporting facilities are in fullest use.

In most respects LRT has similar effects to BRT. However there is a substantial difference between BRT and LRT at the Mount Victoria Tunnel where the option is to provide new tunnels south of the existing tunnel and in addition to the duplicate tunnel proposed to the north. Further land on the Town Belt is required for the approach and additional land would be required on the southern side of Paterson Street which would affect Wellington College and possibly Saint Marks School.

6 Consentability

In taking any of the options forward and considering the difficulty or otherwise of implementation it is necessary at the high level and in the absence of all matters of detail to consider in broad terms the consentability of the possible options. This is both from a Resource Management Act 1991 perspective but also whether or not an option would achieve public support. It has also been assumed that any Regional Consents relating to earthworks, discharges or intercepting ground water can be engineered and achieved for construction of any of the options should they be required.

Works within road reserve including the removal or restriction of parking can be carried out by a Road Controlling Authority which in this case is Wellington City Council subject to making Traffic Resolutions under the Local Government Act 2002. There is no requirement for public participation but that may be carried out if considered necessary.

6.1 Golden Mile

It is notable that for the Golden Mile options that no road reserve widening is proposed nor any particular carriageway widening is required although it is observed that right turn for LRT from Hunter Street to Customhouse Quay and the left turn from Willis to Manners Street may be particularly tight. It may also be required that additional overhead lines that may be required may trigger resource consent but the overall effects of this are likely to be minor as there are existing trolley bus wires through the corridor in any event. It is also assumed that any intersection changes can be managed to avoid any property effects.

On this basis no consents under the RMA will be required and implementation can be progressed from a legal perspective through traffic orders prepared under the Local Government Act 2002. There are however detailed matters such as how servicing and loading will occur for Lambton Quay South and Willis Street where general traffic northbound is proposed to be removed. In terms of social and environmental acceptability it is considered that there is minimal differentiation between the options in terms of consentability and in terms of public acceptance.

6.2 Courtenay Place to Kilbirnie – Southern Alignment Corridor

Bus Priority appears straightforward from a consentability perspective in that the existing road configuration remains primarily the same as existing with the exception of Constable Street. However both LRT and BRT options may require structures in the middle of the road which at Kent and Cambridge Terraces would need to be located on land within the Canal reserve and zoned Open Space. As with Bus Priority all changes can be made within road reserve with the exception of intersection improvements at Elizabeth Street and at the John Street/ Riddiford Street/ Adelaide Road intersection which may require specific consents under the Resource Management Act 1991. In addition at the Basin Reserve no additional consents would be required to implement any of the options recognising that the NZTA is in the process of lodging applications to authorise the Basin Bridge proposal.

In addition Bus Priority at Constable Street requires road reserve widening and intersection widening of the streets which meet Constable Street. This will require careful consideration and they will be effects that need to be managed appropriately through a consent process if this is to proceed.

With BRT and LRT there are substantial changes to the existing road configuration and to the levels of on street parking. Due to the complexity of the changes these options may or may not achieve public



support particularly from business owners that are affected by loss of parking. In addition there needs to be a degree of caution through Riddiford Street in the Newtown Suburban Centre to ensure that the vitality and viability of the retail centre can be maintained if and when BRT and LRT in particular are implemented.

6.3 Courtenay Place to Kilbirnie - Eastern Alignment Corridor

It is likely that no express consents under the RMA will be required to implement Bus Priority. However for BRT the extent of widening required at both Ruahine Street and at Wellington Road is significant even taking into account the fact that the NZTA propose to widen both roads as part of the Mount Victoria to Cobham Drive part of the Wellington Road of National Significance. This significance is due to the extent of land some of it within the Town Belt required to carry out widening including the effect on existing facilities such as the Badminton Hall.

Similar issues apply with LRT but at Mount Victoria tunnel further tunnel bores are proposed and additional widening outside of road reserve on Ruahine and Paterson Streets would be required. It is considered that there are significant consenting issues associated with the LRT option if that was to be pursued.