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2 December 2013

Hearings Subcommittee  
Public Transport Spine Study  
Wellington Regional Transport Committee  
Greater Wellington Regional Council  
Te Pane Matua Taiao  
Shed 39, Harbour Quays

Dear Panel,

### **WELLINGTON CITY'S PUBLIC TRANSPORT SPINE STUDY OPTIONS \_ Oral submission**

We would like to make further comments regarding our written submission.

#### Generally

1. The PTSS seeks wholesale changes to the city which will re-define and re-characterise the city for generations to come. The public transport outcome is of great importance to the efficiency, productivity, well-being and future direction of the city. We believe the PTSS findings are out of accord with the long term vision for the city, as well as best practice for cities internationally.
2. The PTSS seeks to transform the existing transport infrastructure of the city rather than maximise the efficient and productive use of the existing network.
3. The planning required to achieve the proposed alignments for some of the routes is described by the study as feasible. When we analysed the on-the-ground implications from this planning our investigations indicated that these would lead to impractical and undesirable outcomes.
4. The PTSS does not evaluate the merits of each option from an urban design or spatial accessibility perspective. There is no real physical context provided for the evaluation of each option and there seems no awareness that urban design and spatial accessibility may influence or help direct the choice of option.
5. No layout has been shown for the Basin Reserve Roundabout. Although both the PTSS and NZTA's Basin Bridge Proposal state that they are complimentary to and reliant upon each other, there is no plan showing the combination and integration of these projects. Hence, a key part of both projects will not be able to be confirmed until after each hearing process is completed. Thus far neither proposal demonstrates improved traffic performance at the Roundabout.

#### Golden Mile

1. Most sections of the Golden Mile can and should be upgraded immediately to accommodate BRT/LRT regardless of future decisions on a preferred PT spine option.

## Eastern Spine

1. The infrastructure required to implement the proposed BRT/LRT route along Ruahine Street will fundamentally re-organise the city's public transport network rather than maximise the use of the existing network and residential catchment areas.
2. The investigation of the efficacy and accessibility of movement through the city by Space Syntax for the Wellington 2040 report, commissioned by Wellington City Council in 2011, demonstrates that the proposed PT infrastructure for the eastern spine is in the wrong place. I enclose key diagrams from Space Syntax's report to substantiate this claim. One of these shows that the strongest and most direct route for all vehicular traffic from the eastern suburbs to the central city is via the existing HAITAITAI bus tunnel, not the motorway on Ruahine Street (pg 35). Another diagram shows that Ruahine Street has poor accessibility and connectivity compared to the HAITAITAI suburban centre (pg 15). These diagrams, and this report, demonstrate that the existing bus tunnel must be a core part of any future transport network.
3. Serious planning problems have been designed into the alignment of the eastern spine route. The limitation of three lanes heading westwards needing to merge into two lanes through the Mt Vic Tunnel means PT must give way to other traffic (or vice-versa), creating delays and congestion; a central median with PT stations will cause similar merging problems; and a western kerbside station would be isolated, remote, difficult to access and too exposed.
4. Together with NZTA's planned increase in roading capacity and predicted growth in vehicle use for the whole Wellington Region SH1 network, the likely future outcome from an eastern spine on Ruahine Street will be sustained traffic congestion and the compromise of PT objectives, rather than the improvement of all traffic modes. Why adopt this approach when Moxham Ave and the HAITAITAI bus tunnel are already separate from and more directly connected to the Golden Mile than the motorway route?
5. The scale and extent of physical infrastructure required for BRT and LRT will cause unacceptable social and environmental change and damage to the Town Belt, as well as to HAITAITAI suburb. The thoroughfare will fundamentally change the landscape character and quality of the Town Belt, and the open space on the edge of the Town Belt.
6. The eastern spine will form an impoverished swathe of vehicle open space crudely cut between park and suburb. The modification needed to accommodate 7+ lanes, medians and footpaths, plus the adjustment in the lane alignments to bring them down to the level and location of the existing Mt Vic Tunnel will amount to vast and irregular slope battering and retainment. This is not the way to create an impressive entrance route to the city.
7. Likewise, there are planning problems intrinsic to the eastern spine junction with the Basin Reserve Roundabout. The choice of a central or kerbside median is critical to the impact on traffic performance and the adverse effects on adjacent properties. We believe the constraints of space imposed by a flyover will mean even BRT on this route may require the loss of land from Wellington College and St Marks Church School, as well as the removal of planting NZTA proposes around the roundabout as mitigation for the flyover.
8. The significant adverse effects from the eastern spine will impose a high risk profile for achieving the PTSS's objectives through a consent process. These risks and effects should be measured realistically now rather than avoided for the purpose of advancing Ruahine Street as the preferred route for PT to the eastern suburbs.

## Southern Spine

1. Almost the whole of the travel time differences between LRT, BRT and BP for the southern spine route actually occurs within the Golden Mile and is due to the upgrading of the Golden Mile for BRT/LRT. Both the PTSS and subsequent public workshops have made clear that there is no or little time difference once PT leaves Courtney Place. Given BRT lacks most of the distinguishing features of BRT internationally (especially traffic segregation) the selection of a preferred option must look carefully at other relevant criteria such as the urban design and connectivity of the route. Yet the PTSS does not evaluate the merits of any option from these perspectives.

2. How much does a central median contribute to the effectiveness of PT when there is no time difference between BRT and BP, and almost none between BP and LRT? Is the use of a central median on the southern spine cosmetic rather than performative?
3. What is the most effective spatial arrangement for the streets along the southern spine route if there is no time difference between PT? In other words, can the street arrangement and design actually help determine the choice of PT?
4. Alternatively, what is the most effective design for the streets along the route for walking and cycling if there is no time difference between PT?
5. How much does PT contribute to the spatial and aesthetic quality of a street if it requires the removal of sections of the Canal Reserve to accommodate staggered stations and contra-flow bus lanes?
6. How much does a central median contribute to the spatial quality of a street if it divides the street unnecessarily and unfavourably such as the central median proposed for Adelaide Road?
7. Can BRT be aligned on the kerb rather than a central median because there is no travel time difference either way and the spatial outcome for the street will be better?
8. We have looked at Kent/Cambridge Terrace and Adelaide Road and believe there are a number of PT options and alignments that have not been considered by the PTSS.
9. In addition, the PTSS does not provide certainty around implementation of the southern spine due to the timing and the amount of land required to be purchased by Wellington City Council along Adelaide Road to accommodate BRT/LRT. It is unclear whether the land required is more than the PTSS indicates is needed. The PTSS does not dimension the existing road reserve width vs the planned road width on Adelaide Road. Will the land be secured by 2021 or much later, even beyond 2031, as suggested by earlier reports on the PTSS? If BRT and LRT are at their most cost-effective and productive if implemented in one contract, then how feasible will BRT and LRT be if the purchase of land along the southern spine is delayed, staged or considered too expensive?
10. How will the BRT/LRT junctions between roads be resolved along the southern spine when their widths vary significantly? e.g. Adelaide Road/John Street. The PTSS shows typical/generic cross-sections at arbitrary points along the route rather than how the PT service will remain consistent and connected across road junctions. How can any one option be preferred if these junctions have not been resolved? If the junctions are considered feasible, will they be practical and desirable?
11. The PTSS does not seem to take account of intensification and a more compact city being developed along the southern spine. The figures cited for use of PT do not make sense in terms of the spine's growth rate and strong future growth potential. Newtown's low % of car ownership is similar to the CBD's but does not seem to have influenced the predicted take-up of PT vs. car use along the southern spine.
12. The PTSS does not envisage appropriate intensification of property development to achieve higher residential densities. Constable Street is significantly under-developed at present for its strategic location and so any road widening to better accommodate PT objectives (along the RHS properties heading eastwards) is actually desirable to stimulate the city's compact city development objectives and increase the economic returns from development.
13. Constable Street needs to be upgraded not just to accommodate bus priority lanes for PT but also because NZTA's upgrade of Wellington Road will deliver more traffic onto this street which will compromise the performance of PT. Constable Street can be widened to accommodate bus priority lanes with little cost and modification.

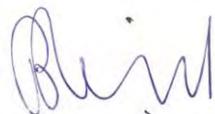
#### Our recommendations

1. Overall, we believe it is not possible to support the findings and any preference from the PTSS until a real world investigation is undertaken which is fully cognisant of the implications from the effects on the ground. No preferred option should be advanced until their risks and effects are properly understood and illustrated.

2. Space Syntax should be commissioned to substantiate the PTSS's analysis, findings and redirect its failings.
3. We believe the eastern spine route along Ruahine Street should be removed from the study. It fails to convince on any number of fronts, including socially, environmentally and economically.
4. The existing Haitaitai bus tunnel should be retained as a core part of the city's transport and economic infrastructure. Until more credible evidence is produced, we are open to advocating for the sustained use of the existing bus tunnel or another eastern route to Kilburnie such as Constable Street. Whether these routes are traversed with BRT or LRT seems irrelevant until credible evidence is produced.
5. A proven urban design firm of international repute and with best practice transport planning expertise should be commissioned to ensure the PTSS creates urban streets of the right dimension, arrangement and quality.
6. Richard Reid & Associates has undertaken a real world investigation of the three short-listed PT options as part of developing an alternative design for the Basin Bridge Project. We believe we can accommodate all three options at the Basin Reserve Roundabout including along its approaches. We will submit this as part of our evidence to the Basin Bridge Board of Inquiry process.
7. The Richard Reid & Associates Option being submitted to the Basin Bridge Board of Inquiry should be reviewed for its contribution to the PTSS objectives.
8. Finally, we would like to reiterate that the objectives and outcomes of the PT Spine Study are achievable without a flyover.

Thank you for your time.

Yours sincerely



**Richard Reid**

Director



# WGTN 2040

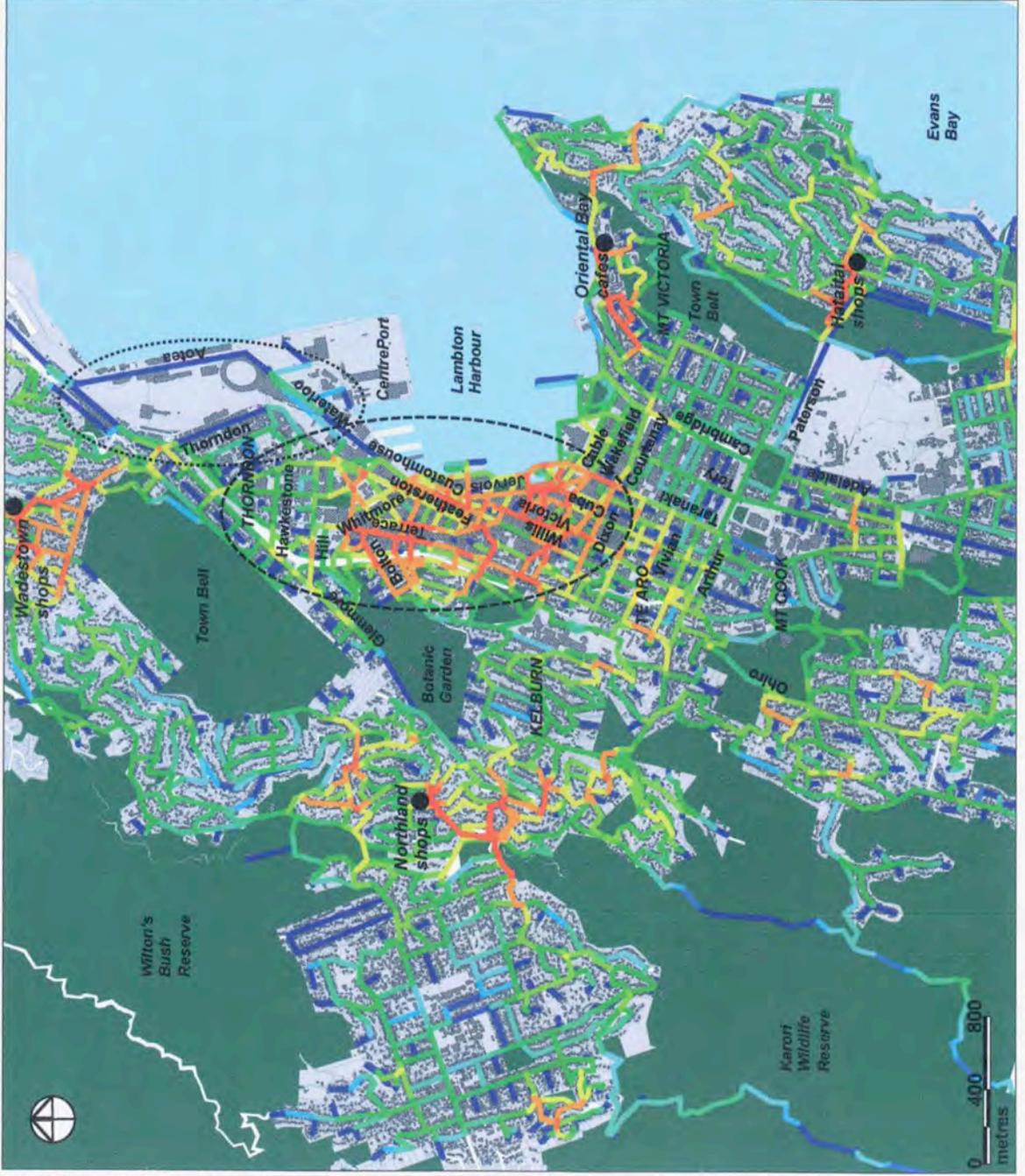
Reshaping Wellington's future

# Space Syntax

City Centre Movement Infrastructure Analysis  
Final Report  
April 2011



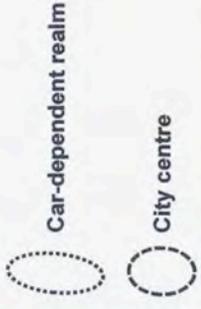
### 3.3 Spatial Accessibility Analysis Existing Pedestrian Infrastructure 400m without city parks



Basemap Wellington City Council © Copyright 2010

The image shows pedestrian movement infrastructure for all 400-metre journeys (5-minute walking journeys) from any origin to any destination across the available network, excluding parks. The 400-metre model shows the pattern of growth potential for key parts of the pedestrian network (shown in red).

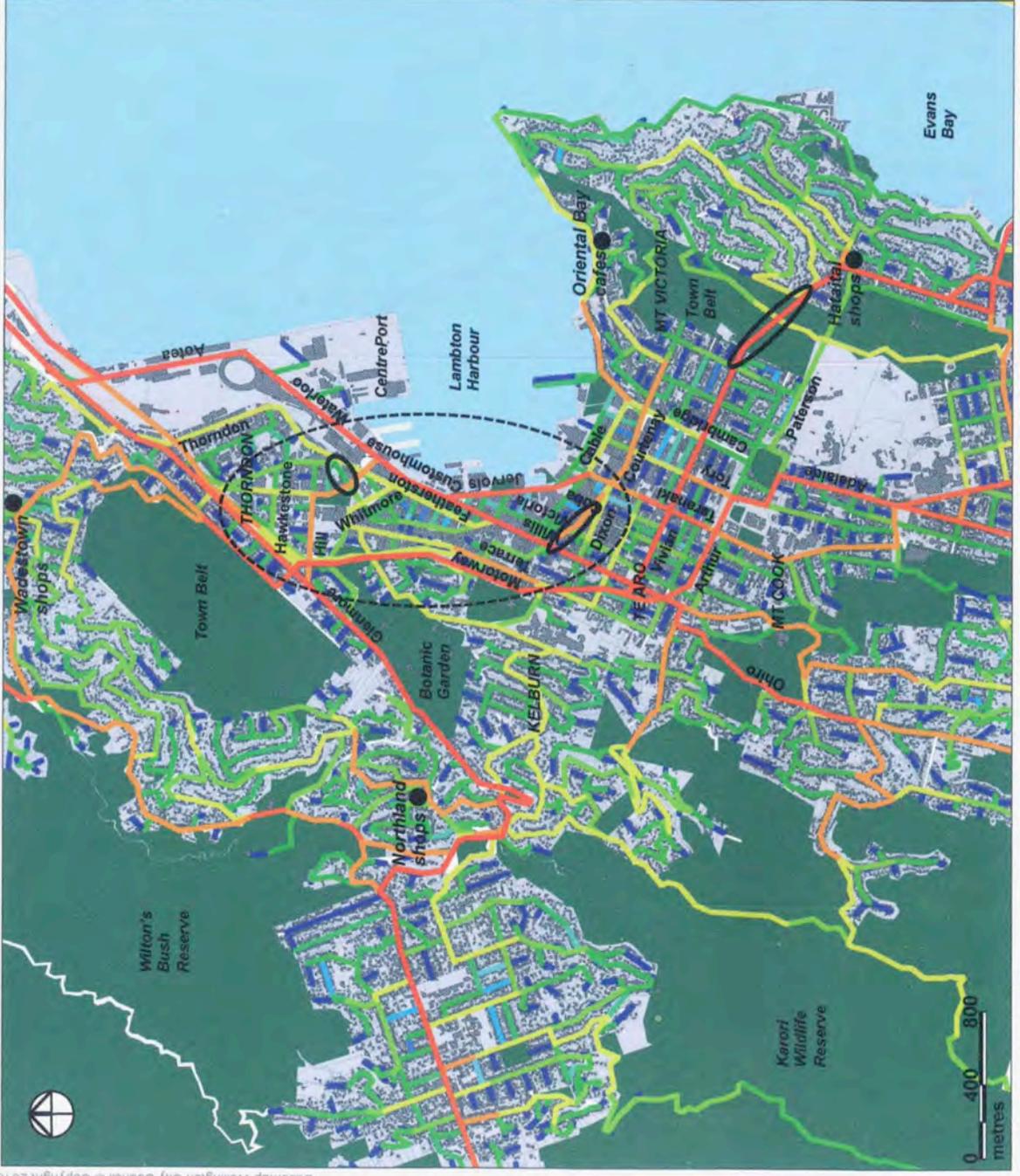
The industrial area (dotted circle) around the railway lands has low pedestrian movement potential. Its block sizes are too large for easy pedestrian movement and so is a car-dependent realm.



- Active land uses external to city centre (retail, catering and commercial)



## 4.2 Spatial Accessibility Analysis Existing Vehicle Infrastructure with bus-only routes



The image shows the vehicle movement infrastructure with the addition of the three bus-only routes, which makes the city centre and the airport route highly navigable by the public transport infrastructure.

-  Bus-only tunnel
-  Bus-only street
-  Bus-only depot
-  City centre

 Active land uses external to city centre (retail, catering and commercial)

