

# Additional Waitemata Harbour Crossing



Harbour Crossing Options (from Waitemata Harbour Crossing Study 2008)

## Project Background

The New Zealand Transport Agency (NZTA), ARC, ARTA, Auckland City Council and North Shore City Council undertook a joint study into the most appropriate route and form of an additional Waitemata Harbour Crossing during 2007 and 2008. The aim was to identify the preferred option to enable route protection measures to be put in place.

The Waitemata Harbour Crossing Study 2008 Study Summary Report dated April 2008 describes the short list of crossing options developed by and following Phase 1 of the study. It then assesses the

short-listed options and reaches a conclusion on the preferred option. The passenger transport element of the new crossing was based on electrified suburban rail similar to that currently planned south of the bridge. For study purposes it was assumed that the northern limit of the rail infrastructure associated with the crossing is the Akoranga Station.

The short-listed options are shown schematically on the above figure. All options include a new passenger rail crossing. Walking and cycling is catered for on the existing bridge (with appropriate modifications) or on a new bridge (if any). Option 1 consists only of a new rail crossing with road traffic using the existing bridge. Option 2 has a new road crossing connecting to SH16 at either Wellington Street (Port and Westbound traffic) or Newton (Westbound traffic only). Option 3 has a new road crossing to Grafton Gully.

The study conclusions included the following:

- Improving passenger transport accessibility between North Shore City and the CBD was the first functional principle of the study. A passenger transport component to an additional crossing is therefore required.
- Given the desire for Wynyard Quarter to be re-developed with a high passenger transport mode share, it would be preferable for a dedicated passenger transport facility to access this area.
- Alternative vehicular connectivity would provide wider regional connections and benefits that passenger transport alone could not serve. This would maximise the broader economic benefits of a new crossing.
- Options that provide additional vehicular connectivity also provide opportunities to reallocate road space on the existing harbour bridge for either dedicated public transport (bus lanes) or active modes (cycling and walking) as well as providing an alternative traffic route across the harbour during incidents and maintenance activities.
- Bridge options were not favoured due to their visual impact on the harbour and impact on surrounding areas such as Westhaven Marina.
- Driven tunnel technology provides several advantages, including flexibility as to when the project is implemented. Options that incorporate rail and road could be constructed separately at different stages, although there would be savings in cost and disruption during construction if they were built together

## **Project Outline**

The conclusion of the above study was that Option 2C best meets the project objectives and functionality principles. Option 2C consists of new driven tunnels:

- between the Akoranga Station and the proposed CBD Rail Tunnel via a route beneath the Wynyard Quarter for passenger rail

- from Esmonde Road to SH1/SH16 for general traffic.

## **Project Status**

The NZTA is in the process of defining the alignment of the roading component of the tunnels in order to serve a Notice of Requirement which would protect the ability to construct a road crossing in due course. ARTA is taking the lead in defining the rail component.

The appropriate timing of construction of a new crossing or crossings is unclear. The NZTA is looking at a number of issues including:

- How much additional capacity would be provided by the additional crossing and what types of traffic would benefit from that additional capacity
- Structural issues associated with the clip-ons and how this might impact on timing of construction of an additional harbour crossing. An update report on this issue was due in September.

Issues relating to the timing of a new rail crossing are discussed in the North Shore Rail project report.

The draft RLTS 2010 includes a policy to protect the ability to construct an additional Waitemata Harbour Crossing. However, construction within the timespan of the RLTS 2010 is not proposed.

## **Indicative Costs & Benefits**

The Waitemata Harbour Crossing Study 2008 gives an indicate cost of the preferred Option 2C of \$3.7 - \$4.1 billion (\$2008).

The study report states that all options will boost the regional economy and employment, and that road-rail options offer more potential social benefits (than rail only) through broader access across the entire region.

Tunnel options preserve the existing harbour landscape and have no effect on the operation of Westhaven Marina.

Option 2C avoids the bulk of the Wynyard quarter development area.

The additional passenger transport crossing would improve passenger transport accessibility to the CBD and Wynyard Quarter. Connecting the North Shore directly with the wider Auckland rail network also improves access to and from the North Shore and the rest of the region.

An additional crossing improves network resilience and route security as it reduces reliance on the existing Auckland Harbour Bridge (and its clip-ons).

Negative impacts include the potential for moderate to strong effects on Shoal Bay. All options have significant construction effects.

## **Issue**

1. The appropriate timing of the construction of an additional Waitemata Harbour road and passenger transport crossing or separate road and passenger transport crossings has still to be determined.