

## TRANSFORMING AUCKLAND

# Public transport for Auckland — goals for the future

Photo courtesy of Auckland Transport

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**THE CITY RAIL LINK (CRL)** will put the city centre within 10 minutes' walk of a train station and will dramatically reduce rail travel times into the city centre.

Auckland transport is now underway with the biggest public transport transformation programme in the history of Auckland.

Auckland's population reached half a million in 1961. It took 35 years to add another half-million people, reaching 1 million people in 1996. And it took just 16 years to add yet another half-million to reach the current population of 1.5 million. This growth momentum is set to continue, with Auckland predicted to add another million people over the next 40 years.

With significant ongoing population growth, standing still is in effect sliding slowly backwards. It is clear that although investment in a completed strategic road network is essential as well as providing new roads to enable growth areas, we can't build our way out of current road congestion, let alone provide enough roads for another million people to travel at lower congestion levels than today. What is needed is a step change in Auckland's public transport, along with much better walking and cycling networks, building from the solid basis set over the past two decades – but taking that even further.

## Rebuilding the rail network

Auckland started rebuilding its then vestigial rail network 20 years ago in 1993 when we acquired diesel trains from Perth after that city electrified its rail network. The additional rolling stock provided a

holding pattern along the path to a modern rail network and enabled rail patronage to grow from 1 million to 2.5 million per annum.

The next critical decision came 10 years later with the opening of the Britomart underground rail station in 2003 which brought rail back to the city centre after an absence of 73 years. Future-proofed to enable its conversion into a through station in years to come, Britomart was the springboard for the renaissance of Auckland rail, together with refurbished rolling stock, upgraded stations, double-tracking the Western Line, reopening the Onehunga Line and building the new Manukau Line.

These investments collectively quadrupled annual rail patronage from 2.5 million in 2003 to over 10 million in 2013. However, the last three years have seen rail patronage growth tapering off – with the exception of a significant one-off boost due to the Rugby World Cup in 2011 – as no additional rolling stock capacity has been added since 2010 with the future planning to procure a new fleet of replacement electric trains upon electrification of the Auckland rail network.

Auckland successfully made a case to the New Zealand government to electrify the rail network in 2007. In terms of this agreement, the government funded the infrastructure for electrification, while Auckland invested in 57 three-car electric trains, providing much-needed extra capacity. The first of these trains arrived in Auckland at the end of August 2013, and the diesel roll-

ing stock will be progressively replaced by the new electric trains between April 2014 and late 2015.

This additional capacity will enable rail, together with the Northern Busway and AMETI Busway, to be the backbone of a connected public transport network and for Britomart's limited capacity to be maximised.

## Transformation programme

Over the next three years, Auckland Transport will implement its transformation programme, building on the capacity provided by the new electric train fleet. This programme is made up of the following elements:

### A new network

The current bus system has unflatteringly been described as 'like spaghetti thrown at a map', having been developed incrementally over the years, and is not well integrated with trains and ferries. A complete redesign of the bus network is taking place, with every route and timetable under review.

The goal is a connected network where buses, trains and ferries work together to their respective strengths. The core of this is a much-expanded network of easy-to-understand, frequent bus and train services, operating at a minimum of 15-minute frequencies between 7am and 7pm, seven days a week, supported by a range of connector, local and targeted services, plus overlay peak-only services, and operation of the same network but a lower frequency

outside of these hours.

This is being delivered within existing operating funding by removing needless duplication between buses and trains. Local services will provide further bus routes limited to the local geographic area; connector services will ensure further local connections to the high-frequency network; and targeted services will provide any further necessary specific services to meet one-off needs.

### Integrated ticketing

A key enabler for the new network is one ticket (the AT HOP smartcard) that can be used on all buses, trains and ferries. Already implemented on trains, ferries and some bus services, implementation will be complete by the end of 2013. This in turn is an essential prerequisite to integrated fares, to be implemented in 2014, where any point-to-point trip will be the same price, irrespective of modes used or connections required, together with other innovations such as off-peak fares.

By its very nature, a connected network will operate much like New Zealand's domestic air network on a hub-and-spoke basis, enabling much more frequent services than if all points were directly connected to all other points. The trade-off is more connections. Much improved interchanges are being delivered to make these connections easy and comfortable. This builds on quality interchanges delivered in New Lynn in 2010 and under construction in Panmure (linking to the planned South-Eastern Busway to Botany). Other interchanges are being delivered in Otahuhu and Manukau, and will be rolled out across other parts of Auckland.

### Improved city centre bus services

Another part of the new network is getting buses to work better in the city centre. Currently around 900 buses enter the city centre during the morning peak, with the bus network struggling in the peak of the peak. To help address this, a new east-west bus connection is planned on Wellesley Street, along with new bus interchanges in the Wynyard Quarter and around the universities. This will significantly speed up service between the north and the Aotea and Learning quarters and from the south and east to the Victoria and Wynyard quarters.

These improvements, which create a much more legible and customer-oriented city centre bus network, will allow it to keep going for about ten years before limited capacity on congested city centre streets starts to significantly degrade operations. This will coincide with the time when the additional electric train capacity

will come up against the wall presented by Britomart as a dead-end station.

### City Rail Link

The solution is the City Rail Link (CRL), converting Britomart into a through station and putting the city centre within 10 minutes' walk of a train station. The CRL will dramatically reduce rail travel times to the heart of the city centre – most notably from the west, but from all parts of Auckland served by the rail network.

Increased proximity to rail (unaffected by increasing road congestion) in the city centre makes it an even more attractive option for investors and place-making. And the CRL enables much higher frequencies across the whole rail network, allowing for significant further patronage growth and benefitting all centres on the network.

This has been achieved in Perth, a similar-sized city to Auckland, which electrified its rail in the early 1990s when annual rail patronage was around 10 million. Now, only 22 years later, Perth's rail network is carrying six times more rail passengers than when it electrified.

Britomart's constraints will limit rail patronage growth from around 2021. And this constrains the entire network as it is driven by Britomart's capacity. Nowhere in Auckland can get better than a 10-minute peak train service (30 minutes on the Onehunga Line) until the Britomart constraint is addressed. And of course, there is no point further developing the rail network until issues constraining its heart are resolved.

### 'Last mile' investments

In addition, Auckland Transport is working hard on 'last mile' investments to improve connectivity to the rapid network of trains, the Northern Busway and the AMETI Busway. Improving local walking networks has a significant benefit.

For example, fully two-thirds of Auckland's rail customers walk to the station. Recent pedestrian improvements around Sunnynook busway station have significantly improved the station's ped shed (its 'walkable catchment'). Similar results were achieved with relocations of Avondale, Grafton (ex-Boston Road), Panmure and Manurewa stations, and pedestrian improvements at Sunnyvale Station.

Connecting cycling to public transport is an opportunity yet to be fully grasped. Bus-rail integration will be delivered with the new network by 2016, but can only be maximised, especially from the west, with the CRL. 'Park and ride' also has a role to play, as evidenced by the success of Northern Busway park and rides, and works particularly well in outer areas and where it can attract people to public transport who would not consider other options.

Auckland Transport has recently opened the first stage of the Silverdale park and ride with 100 spaces, to be expanded to 500 spaces in 2014. It is also expanding existing park and rides at Swanson and Glen Eden, and exploring new park and rides at Takanini, Avondale and elsewhere as part of a wider park and ride strategy.

### Future RTN extensions

Rapid transit is the provision of fast and frequent, right-of-way public transport links that are unencumbered by congestion. To ensure public transport becomes a mode of choice for Auckland's burgeoning population, Auckland Transport's plans for future extensions to the rapid transport network (RTN) as set out in its integrated transport programme include rail to the airport, the Avondale to Southdown rail connection, a busway from Henderson to Albany and the Northwestern Busway, electrification of the rail network to Pukekohe, triple-tracking the rail network between Wiri and Southdown, and future-proofing a rail extension to the North Shore.

### Conclusion

The recent findings of the Consensus Building Group on additional funding have identified that a funding gap of at least \$12 billion will have to be met over the next 30 years, and that unless Aucklanders are prepared to accept significantly higher rates increases and heavier congestion, introducing some form of road pricing by 2021 will be required.

Providing a connected, attractively priced, frequent and reliable public transport system is essential to shape and enable Auckland's growth, and an essential precursor to the successful introduction of road pricing recommended by the Consensus Building Group to be in place by 2021.



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