

Auckland Transport
An Auckland Council Organisation

Panmure: The Evolution of an Interchange

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OPUS In association with BECA BREWER DAVISON PB

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Why Is Good Interchange Important?

- Interchange is unpopular
 - Takes time
 - Involves uncertainty
 - Can increase cost
- But often unavoidable



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Seek to Reduce "Interchange Penalty"

- What is Interchange Penalty?
 - Users' perceptions of the "cost" of interchange
 - Can be deterrent to public transport use, or mode choice
 - Varies according to design and service quality, but also from person to person

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Valuing "Interchange Penalty"

- In modelling terms

$$U = \alpha I + \beta TT + \delta W$$
- Function of:
 - Need to interchange (inconvenience factor)
 - Travel (walk) time, weighted by quality
 - Waiting time, weighted by quality


$$\alpha = \lambda_0 + \lambda_1 E(\dots) + \lambda_2 N(\dots) + \lambda_3 N(\dots) + \lambda_4 PJ + \lambda_5 IC$$

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So how do we reduce the "cost"?


- Good interchanges need:
 - Stops /platforms / parking / drop off zones that are close together
 - Connections direct and obvious, safe and cater for mobility impairments
 - Information, real time service updates, clear wayfinding
 - High quality, safe, secure waiting areas, ideally with toilets, refreshments
 - Frequent and reliable services
- Seeking to achieve *Integration* - the seamless journey



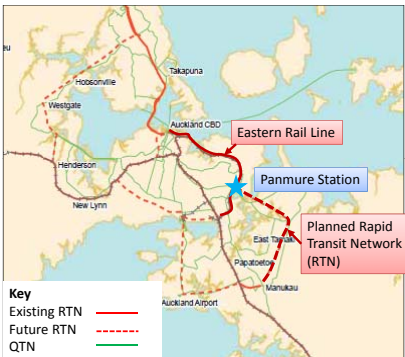
AMETI Panmure




- Phase 1 • 2011-2015
- Phase 2 • 2015-2016
- Phase 3 • 2016-2017



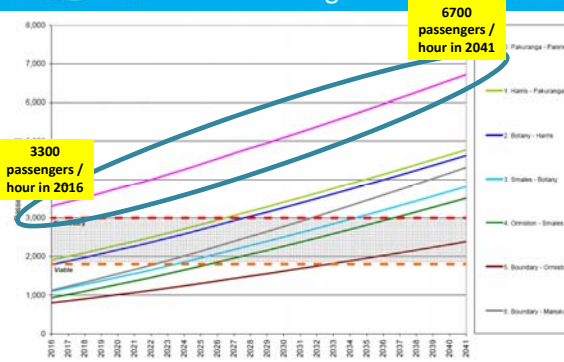
Strategic Context



Key
 Existing RTN ———
 Future RTN - - - -
 QTN ———




RTN Passenger Forecast



6700 passengers / hour in 2041


3300 passengers / hour in 2016

Source - McCormick Rankin Cagney, 2008



RTN Service Plan 2016

- 62 buses/hr/direction across Panmure Bridge
- + 24 buses/hr on local routes
- = **86** buses/hr/direction at Panmure Interchange
- 50% of RTN buses terminate at Panmure station
- Also big bus-bus interchange
- Need 6 bus stops in each direction in 2016

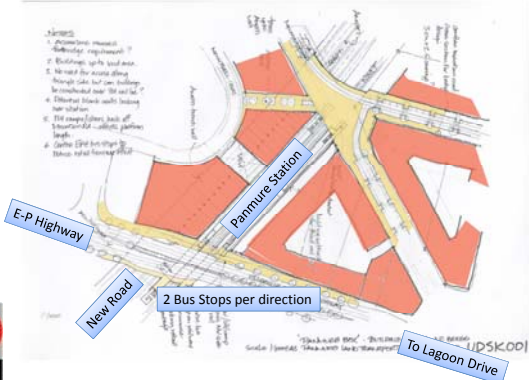


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Scheme Stage (2009) Proposal





Scheme Stage Proposal




2 Bus Stops per direction

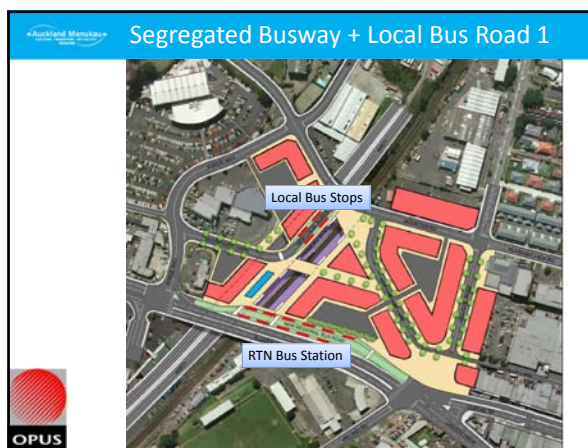
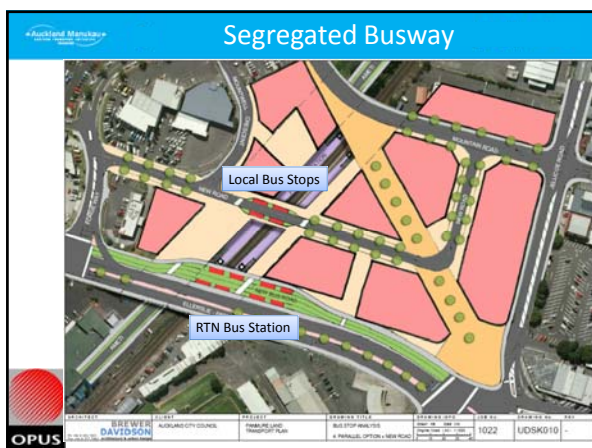
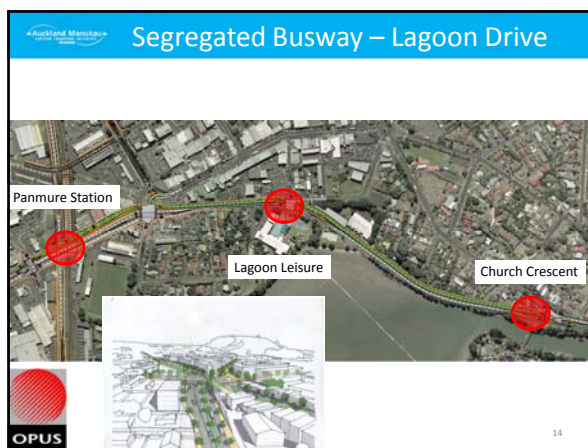
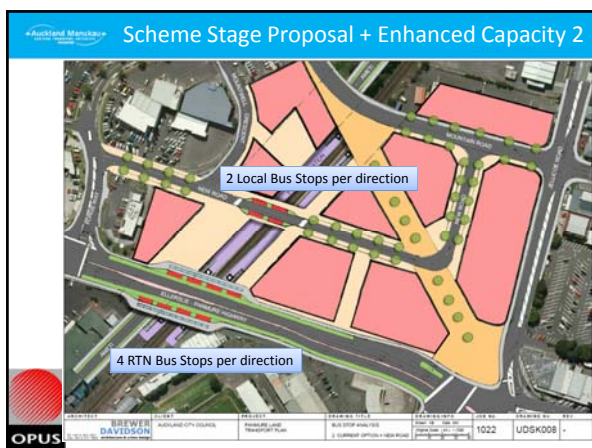


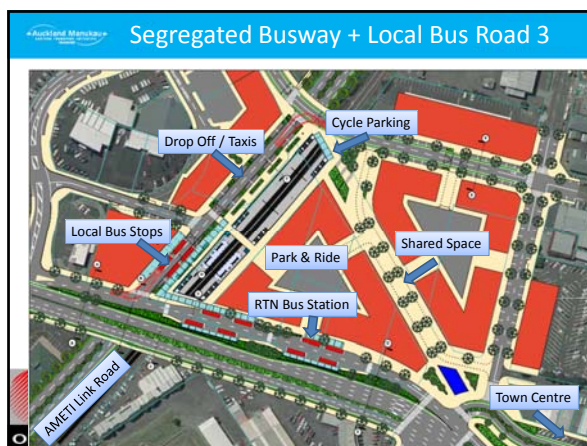
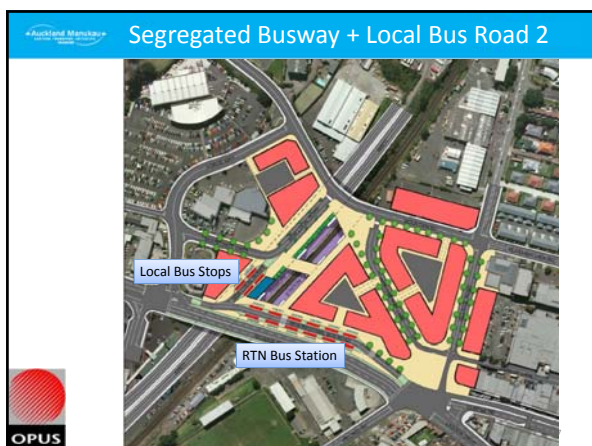
Scheme Stage Proposal + Enhanced Capacity



6 Bus Stops per direction







Panmure Interchange

Segregated busway provides better reliability, capacity for growth

Interchange better serves both station and town centre

Big improvement to bus-bus and bus-rail interchange

Trade off against increased cost

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Summary

Interchange Design is an essential element of a PT system

Quality of interchange will affect patronage

Consider the end users, including mobility impaired, young and old

Minimise walk times, maximise quality of connections and waiting space

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Does "Moving Towards Prosperity" = Improving Infrastructure Quality?

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Thank You

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