

# Integrated Fares

**Project Control Group Meeting  
December 2015**

*Project Status update*  
*Technical workstream update*  
*Family offering recommendation*  
*Zone Boundary changes*








# Decisions required

1. APPROVE recommended option 2B to take to CFC
2. NOTE the zone boundary changes
3. APPROVE scope of ferry monthly passes
4. APPROVE continued investigation of ferry integration

# Integrated Fares Project status update



Aspect	Status
Zone Lite release 7.0 	<ul style="list-style-type: none"> <li>• Customer facing enhancements</li> <li>• Thales delivery to NZ running 2 weeks late (15 Dec) but joint Integration Testing still on-track to commence from 4 January onwards</li> <li>• Some challenges getting a correct EOD to enable downstream impact analysis</li> </ul>
Release 7.1 	<ul style="list-style-type: none"> <li>• Notice to Proceed issued on 23 October</li> <li>• 3 ECPs finalised based on Sep/Oct Thales/OSL workshops                             <ul style="list-style-type: none"> <li>• Zone display, journey ID, web interface changes</li> </ul> </li> <li>• Development commenced by OSL on 1 November</li> <li>• On-track for delivery to NZ 31 March for joint Integration Testing</li> </ul>
Capex 	<ul style="list-style-type: none"> <li>• On-track to stay within \$5M capex this fiscal, \$1M capex required in 16/17 fiscal</li> <li>• On-track to stay within overall \$8M project budget approved by Board</li> </ul>
Opex 	<ul style="list-style-type: none"> <li>• Opex costs re-forecasted down from \$1.35M to \$1M</li> <li>• On-track to stay within \$350K provision for 16/17 fiscal</li> </ul>
Schedule 	<ul style="list-style-type: none"> <li>• 2-phase deployment on-track                             <ul style="list-style-type: none"> <li>• Phase 1 – back-end software update (CST/CSB) 24 June 2016</li> <li>• Phase 2 – Integrated Fares Go-live (EOD) 24 July 2016</li> </ul> </li> <li>• Maintenance of EOD brown-out for June/July/August critical</li> </ul>
Other	<ul style="list-style-type: none"> <li>• Deloitte model/product suite review progressing – first draft report January</li> <li>• Re-baselining requirements to capture output of technical workshops</li> <li>• Updating use-cases for consistency of format – use as basis for testing</li> </ul>

# Technical work-stream update

- Final design workshop for VS7.0 and VS7.1 releases held in Auckland with the AT HOP Thales Technical Design Authority Evelyne Fruri during late September/early October
- Four final VS7.1 Engineering Change Proposals (ECPs) have been reviewed by provided back to Thales for sign-off
  1. **ECP087 BDC Zone display** – Trips on the Bus driver consoles to display stage or zones based on Service pattern
  2. **ECP088 Multiple boarding filtering** – Allow filtering and ordering of the paperless count key
  3. **ECP089 Additional data for Integrated Fares** – Include Journey data elements within the Thales Database to support Business Intelligence reporting
  4. **ECP090 CWP End User Interface changes** – Web changes to support the journey concept  
Changes to the BDC to support display of zones for each stop
- Technical review & acceptance of the proposed transition plan VS7.0 June and VS7.1 July 2016
- Provision of the proposed ZoneLite Equipment Operating Data file (EOD) for TCS
- Agreement on a Use Case document structure and commencement of migration of all use cases to the new structure which will also facilitate delivery of the traceability matrix
- Completed and reviewed Test Strategy
- Agreement for AT to provide local test resource for the Thales SAT test phase
- Provision of the additional test environment (AT ITF) including the required devices

# Family offering – option evaluation

## Integrated Fares - Family Offering Evaluation

Weighting	Evaluation Criteria	%	OPTION 1 Children Off-System	OPTION 2 All kids free with AT HOP	OPTION 3 Paper Ticket
35%	<b>Suitability</b>				
	Consistency with Business Case, Public consultation	5	2	1	2
	Ability to capture patronage, and origin destination data	10	1	6	3
	Encourages patronage	10	3	4	3
	Potential for Fraud (Low BAD, High good)	5	1	3	1
	Ease of messaging / communicability	5	1	3	1
20%	<b>Feasibility</b>				
	Technical capability	10	4	4	2
	Costs to setup / maintain	10	3	5	2
45%	<b>Acceptability</b>				
	Passenger proposition / social responsibility	10	6	2	2
	Board alignment	10	5	2	3
	Operability (Operators)	10	2	6	2
	Operability (AT)	5	2	2	1
	Revenue implications	10	4	2	4
	<b>TOTAL</b>	<b>100</b>	<b>34</b>	<b>40</b>	<b>26</b>
			<b>2nd OPTION</b>	<b>PREFERRED</b>	<b>Eliminated - NOT VIABLE</b>
			Once bar-code implemented would need paper ticket creates vandalism issues of Option 3	<b>VARIANT - OPTION 2B</b> Charge nominal fare e.g. 50c about affordability for families <b>RECOMMENDED</b>	

# Family offering - recommendation

- While Option 2 preferred, there is significant risk in having this wide a free service – once offered, very hard to claw back
  - Also creates issues similar to CityLink – if patronage increases dramatically, no revenue to offset additional operating costs
- Key objective of this offering is to make travelling with families in weekends and public holidays more cost effective
- Option 2B – Children with registered AT HOP card pay \$0.50c per journey during weekends and public holidays
- The flat 50c fare alternative still achieves objective, while maintaining a revenue stream, reduces revenue leakage from \$300k to around \$170K
- Initial technical validation is that our solution can handle differential pricing by time-of-day (same as for SuperGold)
- Board will need expectations re-set based on changed proposition
  - Focus on value proposition, and organisation benefits of increased HOP penetration, and origin-destination data

**DECISION 1 – APPROVE recommended option 2B to take to CFC**

# Zone Boundary changes – issue & options

- As per previous feedback from the Board, we need to minimise passengers being impacted by fare increases as a result of integrated fares.
- The worst impacted passengers are passengers going from current 1 stage fares to 2 zone fares (an increase from \$1.70 to \$3.30).
- Based on our modelling the current zone boundaries would result in 870,000 bus and train passenger trips going from 1 stage to 2 zones (representing 1.2% of overall patronage).
- 20% of these passengers will be school children, and during the public consultation in May/June AT received substantial feedback from some schools (particularly Rangitoto and Murrays Bay Intermediate).
- There are 3 viable options:
  1. **Do nothing** – accept that these passengers will be impacted by the new fare structure and be ready for the negative feedback at launch
  2. **Increase zone overlaps** to mitigate “losers”
  3. **Limit changes to school bus routes** (or school bus stops)
- Only options (1) and (2) are recommended as option (3) would result in different fares for students who use urban services for the same routes which goes against a fundamental driver of integrated fares.

# Zone Boundary changes - impacts

Zone boundary	Impacted passengers	Recommendation	Passenger trips mitigated	Revenue impact
Upper North Shore / Lower North Shore	129K passenger trips of which 111K are on school buses (Rangitoto College, Murrays Bay Intermediate)	Increase overlap around Mairangi Bay by putting 11 additional stops in overlap (see attachment 1).	129K passenger trips mitigated (111K school)	-\$212K
Isthmus / Waitakere (Blockhouse Bay / Green Bay)	24K passenger trips impacted (11K school bus)	Increase overlap from zone boundary to Blockhouse Bay (see attachment 2)	24K passenger trips mitigated (11K school)	-\$21K
Isthmus / Waitakere (Avondale)	9K passenger trips (9K school bus)	No change as impacted schools are a long way from zone boundary.	-	-
Waitakere / Huapai (Westgate)	8K passenger trips (no school)	No change as very small benefit	-	-
City / Isthmus (Mt Eden)	Mt Eden is the largest contributor to 1 stage to 2 zone fares with 272K passenger trips	No change due to expected change in passenger behaviour (they can walk 1 stop to avoid the fare increase).	-	-
City / Isthmus (Orakei)	249K passenger trips impacted due to putting Orakei station into Isthmus zone	No change as Hobson Bay is logical boundary.	-	-
City / Isthmus (Newmarket)	4K passenger trips	No change as any change will result in substantial lost revenue.	-	-
Isthmus / Manukau North (Pakuranga)	22K passenger trips (4K school)	No change as limited benefit and only to students travelling outside their school zone	-	-
Manukau North / Manukau South (Puhinui and Clover Park)	90K passenger trips impacted (no school)	Increase overlap to include puhinui train station and to along puhinui road (see attachment 3)	25K mitigated	-\$57K
Summary	870K pax impacted (159K school)		178K mitigated (122K school)	-\$290



# Zone Boundary changes - outcomes

- With a focus on mitigating 1 stage to 2 zone impacted school children we will be making the following changes

Boundary	Change	Impact
Isthmus / Waitakere (Blockhouse Bay)	Include 16 stops in overlap from Blockhouse Bay to Green Bay	24K passenger trips mitigated (11K school), -\$21K revenue
Manukau North / Manukau South (Puhinui)	Include 16 stops in overlap from Puhinui station and along Puhinui Road	25K passenger trips mitigated (no school), -\$57K revenue
Waitakere / Huapai (Westgate)	Include 16 stops in overlap from zone boundary down to Westgate	8K passenger trips mitigated (no school), -28K revenue
Upper / Lower North Shore	Include 11 stops in overlap <b>for School bus trips only</b>	111K school bus trips mitigated, -111K revenue

- Through these changes we have mitigated 77% of impacted school passenger trips with an annual impact on revenue of -\$217K

**NOTED – Zone overlap changes to mitigate impacted school bus trips**

# Ferry update

- Ferry monthly passes (inner / mid / outer)
  - Remain for ferry services only (no originating / terminating zone)
  - Includes ability to use other services for that grouping (but no lesser services)
- Ferry integration
  - “Aqua zones” not looking technically feasible:
    - Feedback from Thales during last visit that “aqua zones” would create massive administrative issues in the EOD
    - Limit of 16 zones in configuration
  - CityLink approach is technically feasible, but some commercial implications
    - Ferry travellers get up to value of ferry service for free bus/train travel
    - Longer distance bus/train travellers get free ferry services up to the value of the bus/train travel

**DECISION 2 – APPROVE ferry monthly pass scope**

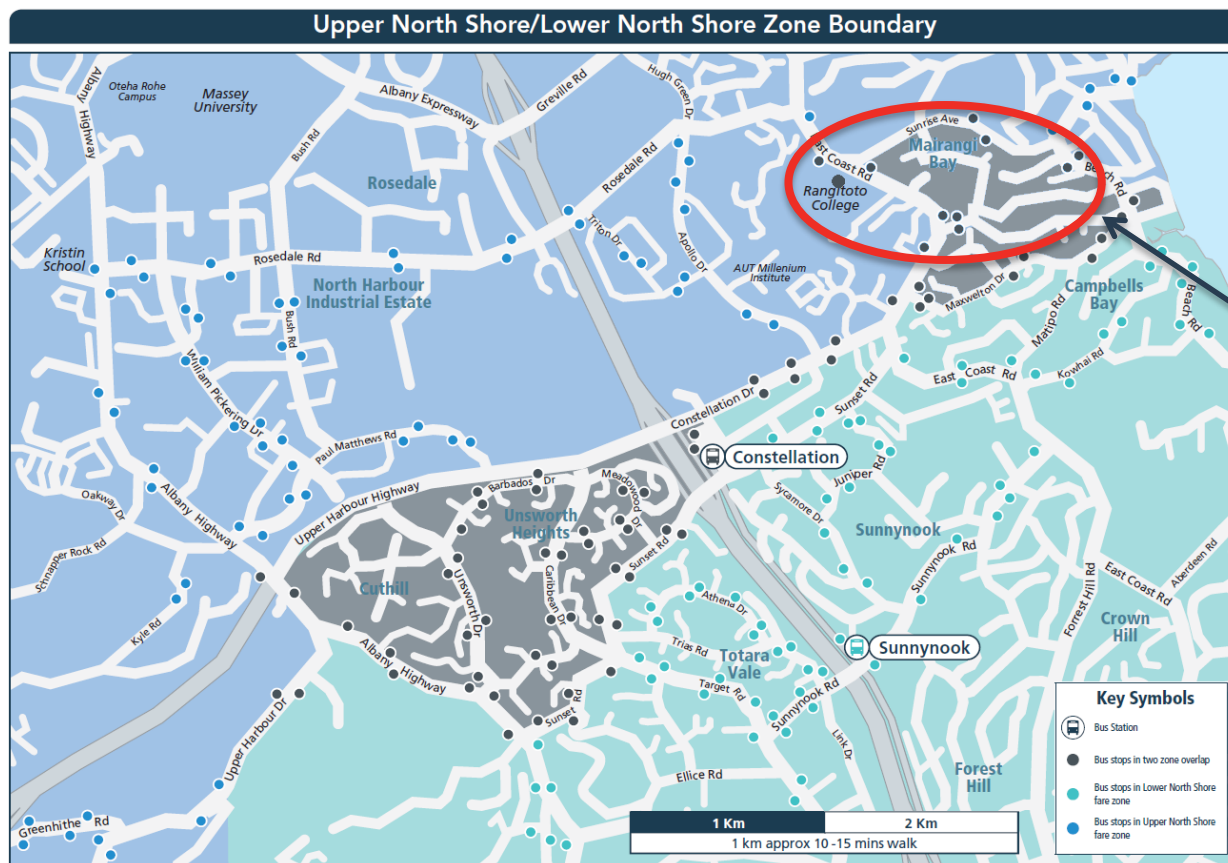
**DECISION 3 – APPROVE continued analysis of ferry integration**



# Attachments

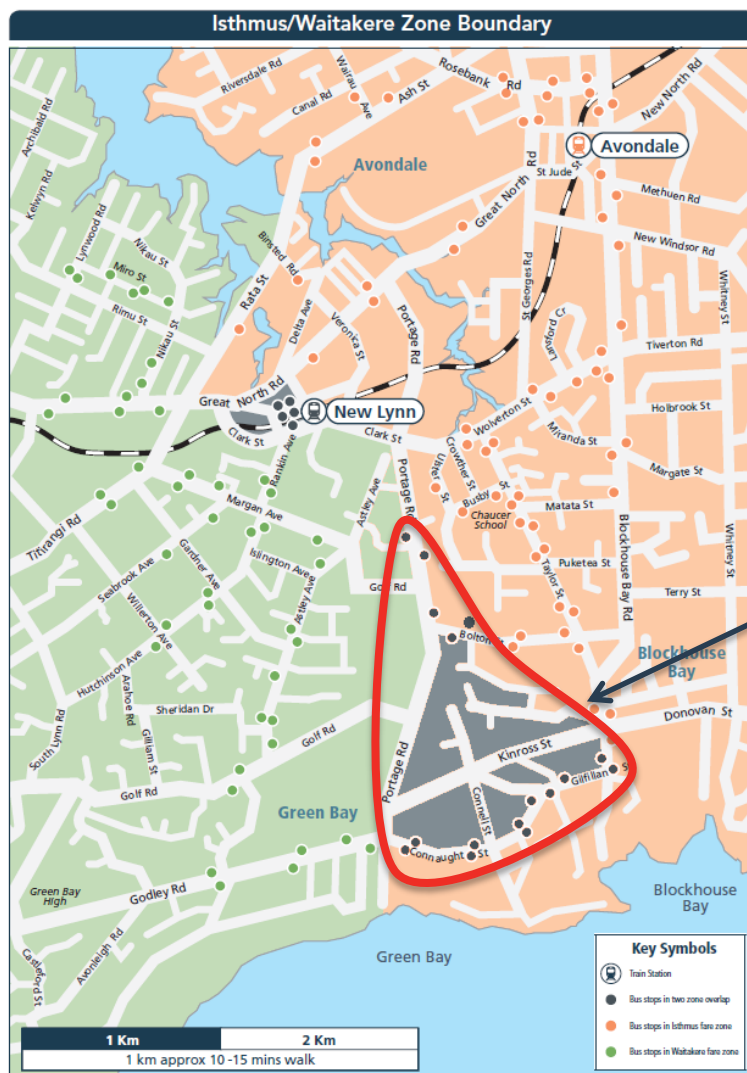


# Attachment 1 – Upper/Lower North Shore



11 stops added  
to overlap  
SCHOOL BUS TRIPS  
ONLY

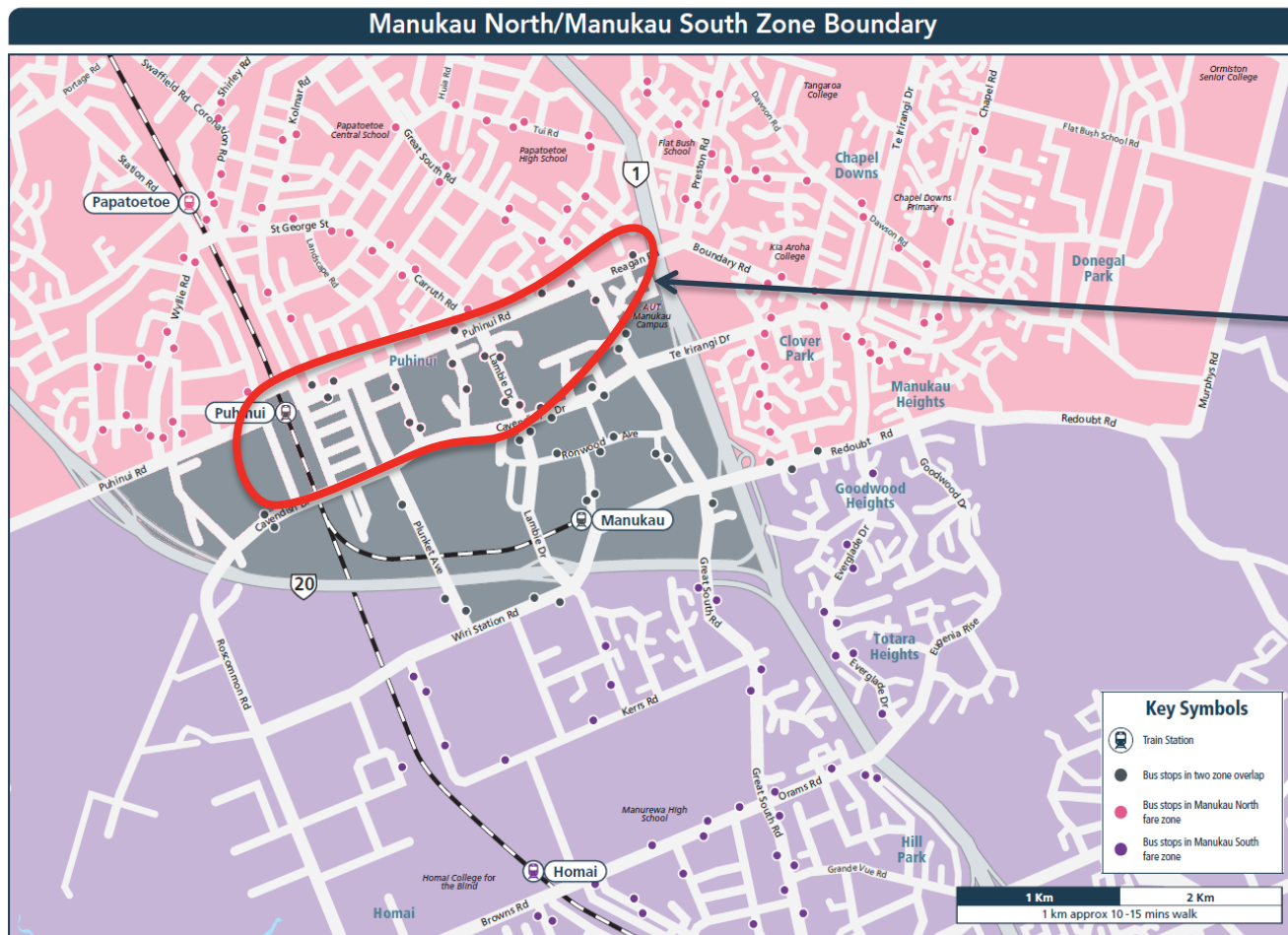
# Attachment 2 – Blockhouse Bay / Green Bay



16 stops added to overlap

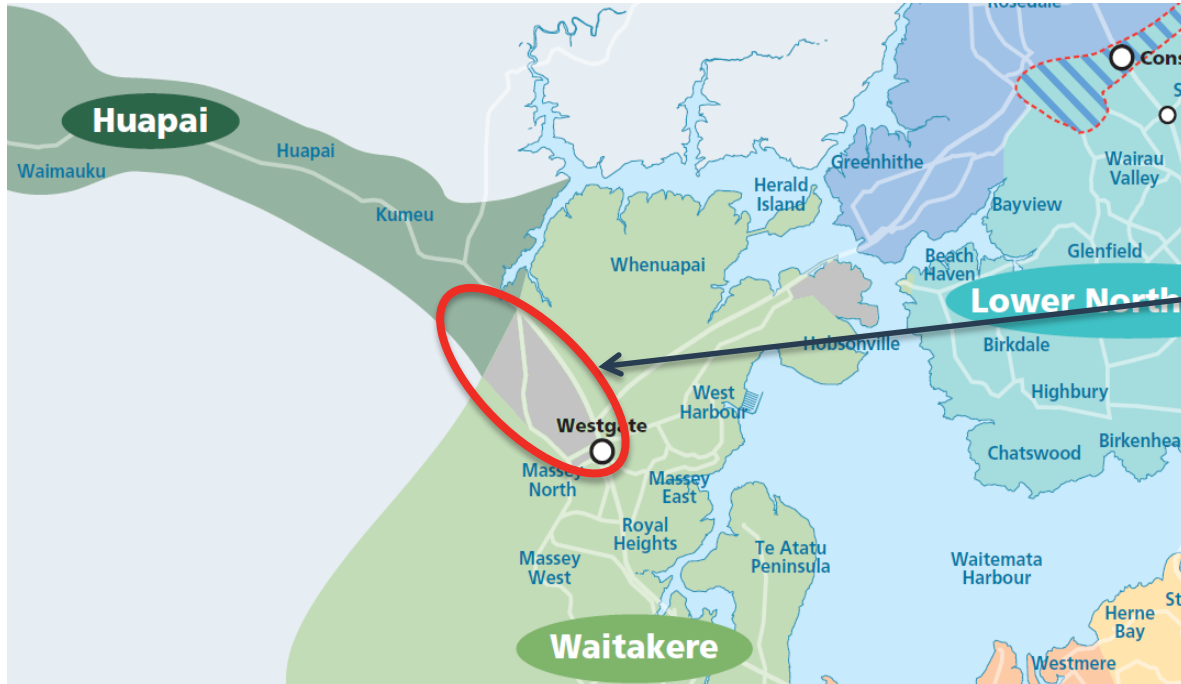


# Attachment 3 – Puhinui / Clover Park



16 stops added to overlap

# Attachment 4 – Westgate



16 stops added resulting in a reduction of one stage to two zone passenger trips of 7.8k and zone revenue by \$28k