

# Rail Stations Upgrade Programme

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## Purpose

The purpose of this paper is to seek the Board's approval to include the proposed continuation of the Auckland Rail Station Upgrade Program into the forward program for Auckland Transport subject to the confirmation of funding.

## Executive Summary

From 2002 various station upgrade programs have been implemented across the Auckland network. The Auckland Rail Stations Upgrade Program project proposes the continuation to complete the full upgrade of the balance of non-upgraded stations in the Auckland Rail Network.

While the enhanced station amenity provided will be consistent with the Auckland Transport objective of increasing rail patronage the program is also interdependent with the roll out of the Auckland Electrification Program. To maximise the efficiency of delivery and to avoid unnecessary rework the objective of the proposed program is to complete the station upgrade works prior to the completion of the electrification works. While less critical it would also be beneficial for the program to be delivered before the implementation of the electric trains in 2014 to complement their roll out with a high quality facility.

To achieve this result, phased implementation of the program is required with the majority of upgrade works planned for 2012 and 2013. The intention would also be to link the Station Upgrade Programme to a station amenity review which is currently being undertaken by Auckland Transport.

A high level cost estimate for the proposed program is \$38.9 million with an annual capital expenditure forecast of \$750k for FYR 2010-11, \$25.75 million for FYR 2011-12 and \$12.4 million for FYR 2012-2013. More detailed estimates will be linked to the outcome of the station amenity review which will be brought to the Board for investment decision once amenity investment options have been analysed and evaluated.

Currently the proposed continuation of the programme is not funded. Should the Board endorse the inclusion of the advanced programme within the Auckland Transport forward programme, funding for the program would be required.

Possible funding options would be;

- Re-apportion allocated project budgets for FYR 2010-2011, FYR 2011-2012 and FYR 2012-2013, inclusive of the NZTA Funding Assistance Rate component for these projects.
- Submit a program funding application to the NZTA. This may place further pressure on program delivery prior to 2014 as the Public Transport Infrastructure component for the GPS Financial Period 2009-2012 has been exhausted.

In order that momentum is not lost on the programme it is proposed to continue with the key work packages and the development of the program. This would require the allocation of an initial budget of \$750k for FYR 2010-11. This is consistent with the Capex Programme Review paper submitted separately to the Board.

## Background

### Rail Station Upgrade Program

The Auckland Rail Network comprises 4 branch Lines servicing 41 Rail Stations. From 2002 to date various station upgrade programs have been implemented across the network. These upgrades have been undertaken in partnership with KiwiRail and the Track Duplication Programs. Works included platform renewals and extensions, station furniture and shelters.

With the exception of the Kiwi Rail DART 26 project, the majority of these upgrade programs have been concluded with a total of 28 stations upgraded to date. However, further modernization of station facilities and supporting infrastructure for the Network Electrification would be required at a number of these stations.

It is proposed that to meet the objective of increasing rail patronage and in support of the Network Electrification the balance of stations will need to be upgraded prior to 2014. These works would typically comprise platform renewals, and/or raising and extending platforms, CCTV and PA and associated systems, shelters and lighting, this is referred to as a Full Station Upgrade.

A rationalization review of the standardized station amenities design (Common Elements) is currently in progress. This review is aimed at capturing design efficiencies and potential costs savings identified from the previous upgrade programs and a mechanism for linking investment decisions with respect to amenity levels of service to patronage.

### Program Outline

The Rail Stations Upgrade Program comprises the upgrade of the balance of non-upgraded stations as well as the installation of supporting electrification infrastructure at upgraded stations (refer Attachment A).

The program is highly interdependent with the Auckland Electrification Project (AEP), in that the majority of the proposed station upgrades need to be completed prior to the installation of overhead wire infrastructure. Failing to achieve this objective will impact on Auckland Transport's ability to maintain momentum on delivering supporting infrastructure for improved passenger service levels and increasing rail patronage for the next several years.

Key Drivers for Station Groups 1/5:

- Minimise impact on passenger operations post-electrification
- Minimise construction H&S risks post-electrification
- Maintain cost efficiency and reduce costs by delivering pre-electrification
- Mitigate costs risks associated with undertaking the station upgrades post-electrification
- Deliver a robust Rail Transport System by 2014

The second objective of the program is to deliver these upgrades prior to the roll-out of electric train services in 2014.

Stations in Group 6 are not in the future electrified area but are linked to key developments that support the overall development of passenger service operations post electrification.

### Program Structure

The Rail Stations Upgrade Program comprises of 23 Stations across the network.

Phased implementation of the program is required to interject with the main stages of the AEP roll-out program for 2011 and 2012, and order of priority for Auckland Transport Passenger Operations.

**Note:** The budget estimates below are if completed prior to Electrification. Post Electrification budget figures are available in Attachment B to this board paper.

**Key program phases:**

Phasing	Description	Planned Completion Date
<b>Phase 1</b>		
<b>Station Group 1</b>		
<b>Western Line</b>		
Swanson Station P&R	Park and Ride and additional Common Elements	30/11/2011
Mount Albert Station	Full Station Upgrade	30/03/2012
Mount Eden	CCTV and Lighting	31/08/2011
Costing estimate Group 1 Stations : <b>\$7,270,000.00</b>		
<b>Phase 2</b>		
<b>Station Group 2</b>		
<b>Onehunga Line</b>		
Onehunga Station	Platform extensions, Partial Station Upgrade and Track Works	30/07/2011
<b>North Auckland Line</b>		
Remuera Station	Full Station Upgrade, Raise Platform Levels	30/09/2011
Greenlane Station	Full Station Upgrade	30/12/2011
Penrose Station	Full Station Upgrade (excluding shelters)	30/09/2011
Costing estimate Group 2 Stations : <b>\$4,560,000.00</b>		
<b>Phase 3</b>		
<b>Station Group 3</b>		
<b>Southern Line</b>		
<b>Westfield to SP</b>		
Westfield Station	Full Station Upgrade (future definition station unclear)	30/04/2012
Otahuhu Station	Full Station Upgrade	30/04/2012
Papatoetoe Station	CCTV and Lighting	30/07/2011
Puhinui Station	Partial Station Upgrade	30/07/2011
Costing estimate Group 3 Stations : <b>\$2,920,000.00</b>		
<b>Phase 4</b>		
<b>Station Group 4</b>		
<b>Southern Line</b>		
<b>Puhinui to SP</b>		
Te Mahia Station	Full Station Upgrade	30/07/2012
Takanini Station	Full Station Upgrade	30/07/2012
Papakura Station	Station upgrade and reconfiguration for the DMU-EMU Terminus	30/07/2012
<b>Britomart/NMBL</b>		
Parnell Station		
Stage 1	Building Relocation	30/09/2012
Stage 2	Full Station Upgrade (Incl. Track Works)	30/07/2012
Costing estimate Group 4 Stations : <b>\$22,215,000</b>		
<b>Phase 5</b>		
<b>Station Group 5</b>		
<b>Eastern Line</b>		
Orakei Station	CCTV and Lighting	30/07/2011
Meadowbank Station	CCTV and Lighting	30/07/2011
Glen Innes	CCTV and Lighting	30/07/2011
Panmure Station	Station enhancements for AMETI	TBC
Costing estimate Group 5 Stations : <b>\$710,000.00</b>		
<b>Phase 6 (Detailed Design)</b>		
<b>NON-ELECTRIFIED STATIONS</b>		
<b>Station Group 5</b>		
Huapai Station	Designate Permanent Station	Delivery deferred to post-electrification
Waitakere Station	Partial Upgrade	
Drury Station	Scope Detailing	
Pukekohe Station	Scope Detailing	
Costing estimate Design Group 6 Stations: <b>\$1,210,000.00</b>		

## Program Status

The Rail Stations Upgrade Program has been in development since May 2009 and originally entailed an annual delivery and upgrade of four stations with an anticipated program completion in 2013-2014.

Since the establishment of Auckland Transport, AT Major Projects has further developed Stage 1 of the program and determined high level project cost estimate, preliminary business case analysis, and priority listing of stations, associated works packages for design and construction and key dates for completion.

The Program has been reviewed with the COO Rail Facilities and Auckland Transport Passengers Operations with further iteration required for:

- Confirmation of priority stations
- Grouping of station upgrades
- Delivery Programme interfacing with AT- Passenger Transport Operations

Further review of the program structure and implementation program is required with KiwiRail and AEP.

## Program Funding Structure

### Project Cost Estimate

High level costing for the full program (excluding phase 6 stations deferred to post electrification) is estimated at \$38.9 Million, with an annual capital expenditure forecast of

	FYR 10-11	FYR 11-12	FYR 12-13
	\$750,000.00	\$25,750,000.00	\$12,400,000.00

### Proposed Funding Structure

Funding was initially to be secured from the Auckland Regional Fuel Tax Scheme and the National Land Transport Fund. Following the loss of the Regional Fuel Tax Scheme in 2009 the NZTA covered the initial funding deficit limited to existing projects and limited additional funding for the GPS period 2009-2012.

No current funding is approved for the GPS period 2009-2012 for the design and implementation of the Stations Upgrade Program.

Funding options proposed:

- i) Reapportion of allocated AC budgets for FYR 2010-2011, FYR 2011-2012 and FYR 2012-2013 to the program, inclusive of the NZTA Funding Assistance Rate component for these projects.
- ii) Submit a program funding application with the NZTA

## Description of Proposal

It is proposed to:

- i) Proceed with the development of the Rail Stations Upgrade Program Phases 1-6 and the following work packages:
  - a. Develop NZTA Funding Application for the program
  - b. Secure NZTA approvals for deferral of the remaining FYR 10-11 Funding Assistance Rate Components across the AT-Transport Budget to the program
  - c. Undertake further costing analysis and business case development
  - d. Undertake further scoping analysis
  - e. Concept design detailing all station groups
- iii) A budget of \$750,000.00 for FYR 2010-2011 is allocated to allow further development of the program and detailed design.
- iv) Commence with the detailed design for all Station Groups noting the Group 6 stations will not be progressed beyond detailed design.

## Next Steps

Following approval of this proposal the next steps are:

- Confirm station priority listing with COO Rail Facilities and Auckland Transport Passenger Operations
- Agree program with KiwiRail/AEP Program and key stakeholders
- Progress NZTA Submission for deferral of balance of the Funding Assistance Rate component
- Procure Professional Services resource

## Recommendation

It is recommended that the Auckland Transport Board:-

- a) Receives this paper
- b) Endorse the development of the Rail Stations Upgrade Program into the Auckland Transport forward program.
- c) Approve allocation of \$750,000.00 budget for FYR 2010-2011

## Attachments

Attachment A Master Programme  
Attachment B Funding Estimate

<b>WRITTEN &amp; RECOMMENDED by</b>	Dr Kevin Doherty <b>Chief Infrastructure Officer</b>	
<b>APPROVED FOR SUBMISSION by</b>	David Warburton <b>Chief Executive</b>	



**AT Remaining Platform Upgrades  
Funding Estimate**

Date: February 4th 2011  
Status: Estimate of Costs

Item	Unit	Base Estimate	Expected Estimate	Funding Estimate	Platform	Scope of works
<b>Summary</b>						
1	LS	\$ 1,850,000	\$ 2,200,000	\$ 2,400,000	Platform extension KiwiRail	Park and Ride and platform furniture
2	LS	\$ 3,400,000	\$ 3,300,000	\$ 4,800,000	Full 155m from KiwiRail	Full furniture Upgrade including concourse works
3	LS	\$ 26,364	\$ 29,000	\$ 70,000	Full 155m from KiwiRail	New CCTV/Lighting only
4	LS	\$ 417,400	\$ 459,140	\$ 460,000	Platform extension only	Platform, furniture and trackworks
5	LS	\$ 586,969	\$ 645,666	\$ 820,000	Full 155m from KiwiRail	New Furniture only no shelter. KiwiRail to raise platform/building. AT possible upgrade to building
6	LS	\$ 1,310,340	\$ 1,441,374	\$ 1,830,000	Full 155m from KiwiRail	Full furniture Upgrade
7	LS	\$ 1,033,757	\$ 1,137,132	\$ 1,450,000	Full 155m from KiwiRail	Full Upgrade, except use old shelter building for cover + PnR works
8	LS	\$ 578,886	\$ 636,775	\$ 810,000	Not upgraded	Full furniture Upgrade
9	LS	\$ 578,886	\$ 636,775	\$ 810,000	Island 80m long - extension 60m	Full furniture Upgrade
10	LS	\$ 50,000	\$ 55,000	\$ 70,000	Full 155m from KiwiRail	New CCTV/Lighting only
11	LS	\$ 880,645	\$ 968,710	\$ 1,230,000	Full 155m from KiwiRail	Shelter and basic upgrade + PnR works
12	LS	\$ 1,247,140	\$ 1,371,854	\$ 1,750,000	Full 155m from KiwiRail	Full furniture Upgrade + PnR works
13	LS	\$ 1,259,267	\$ 1,385,194	\$ 1,760,000	Full 155m from KiwiRail	Full furniture Upgrade + PnR works
14	LS	\$ 3,000,000	\$ 3,300,000	\$ 3,600,000	New platform	Full furniture Upgrade
15	LS	\$ 850,000	\$ 985,000	\$ 1,105,000	No Platform works	New location of old Newmarket shelter
		\$ 11,000,000	\$ 12,100,000	\$ 14,000,000	New Platforms and access	Full station. No KR trackworks
16	LS	\$ 50,000	\$ 55,000	\$ 70,000	Complete except CCTV	New CCTV/Lighting only
17	LS	\$ 50,000	\$ 55,000	\$ 70,000	Complete except CCTV	New CCTV/Lighting only
18	LS	\$ 50,000	\$ 55,000	\$ 70,000	Complete except CCTV	New CCTV/Lighting only
19	LS	\$ 500,000	\$ 500,000	\$ 500,000	Upgraded Station	New Station/PnR to accommodate AMETI. Design Only. Construction from July 2012.
20	LS	\$ 230,000	\$ 230,000	\$ 230,000	Existing 90m	Full furniture Upgrade no extension + PnR works
21	LS	\$ 230,000	\$ 230,000	\$ 230,000	Existing 86m	Full furniture Upgrade + PnR works
22	LS	\$ 450,000	\$ 450,000	\$ 450,000	New station	Station, PnR & Trackworks
23	LS	\$ 300,000	\$ 300,000	\$ 300,000	New Single platform	Station, PnR & Trackworks
<b>TOTAL STATION CONSTRUCTION VALUE</b>		\$ 29,929,654	\$ 32,476,619	\$ 38,885,000		

**Assumptions:**  
Assumes access to corridor not heavily restricted by AEP works. No night works allowance, overall costs dependent on procurement of groups of stations. Estimate based on individual stations.  
Mt Albert, Panmure and Papakura estimated cost only - no scope information available.  
Consents and professional fees included  
KiwiRail to extend platforms where needed. Assumed no additional platform drainage on existing platforms. KR project if needed.  
\* Costs include some platform surfacing where stations have not been upgraded  
No Escalation allowance or AEP associated costs