

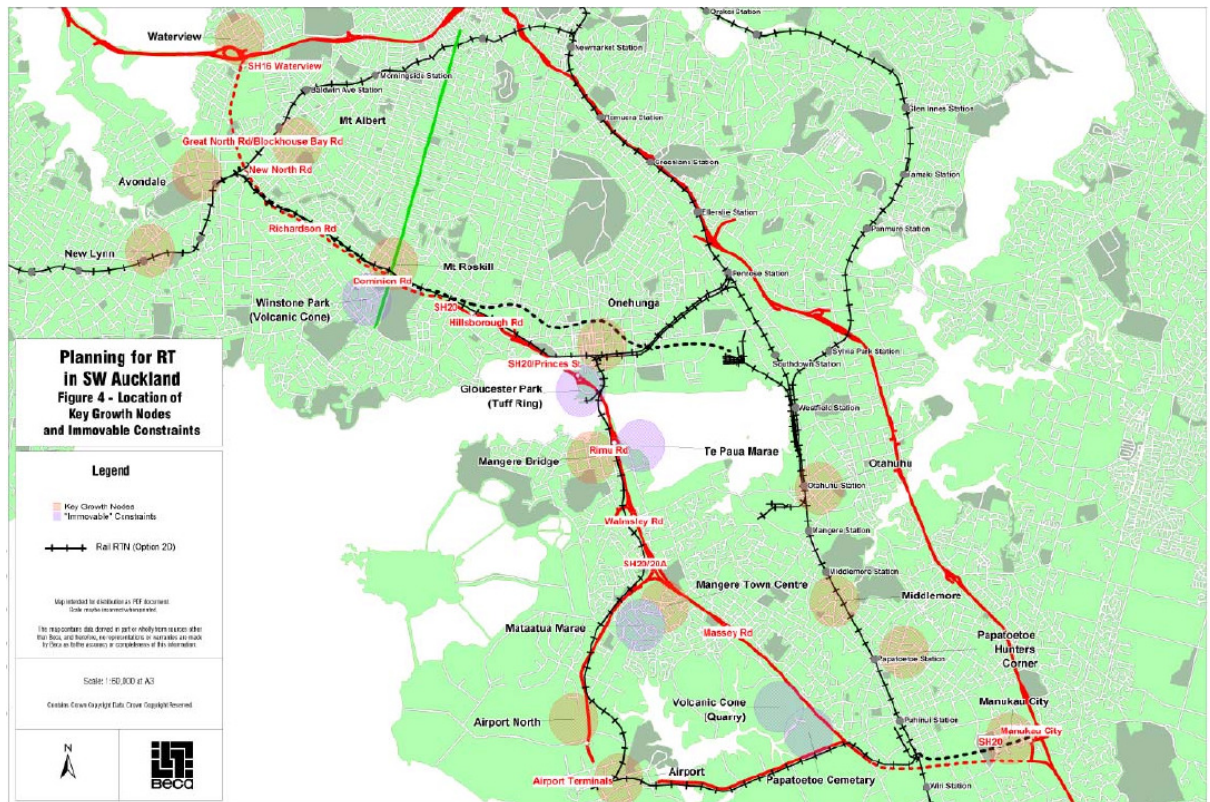
AIRPORT RAIL & AVONDALE-SOUTHDOWN LINE

Project Outline

Airport Rail is the proposed rapid rail system accessing the Auckland International Airport. It potentially consists of part or all of the proposed Avondale-Southdown Line, the Onehunga Branch Line, a new rail line across the Manukau Harbour, and new rail lines to the Airport south of the Manukau Harbour.

The Avondale-Southdown Line is a long-planned rail link across the Auckland Isthmus linking the existing rail lines at Southdown and Avondale. The route was initially designed to provide an alternative route for freight trains by-passing the relatively steep gradient on the rail line past Ellerslie. The route has been designated for many years. The extensions of SH20 through Mt Roskill and beyond accommodate the planned rail route where the motorway and rail route share the same corridor. The designated rail route runs north of the Onehunga town centre. This section has the most difficult terrain and is potentially the most expensive and contentious part of the route. Alternatives passing under the Onehunga town centre have been investigated but no decision has been made on progressing an alternative route through Onehunga.

The plan below shows the currently preferred 'Airport Rail' network. The background to this plan is outlined under Project Status.



Airport Rail Network

Project Status

ARTA commissioned consultants Beca Infrastructure Ltd in association with Parsons Brinckerhoff to undertake a study entitled Planning of Rapid Transit Corridors in the South West Auckland Metropolitan Region. The study covers the period to 2050 and was completed in April 2008. The following information is based on the study Final Report.

The study area included the route of the proposed Avondale-Southdown line, the Onehunga Branch Line, a potential rapid transit link between the Onehunga area and the Auckland International Airport across the Manukau Harbour, and a potential rapid transit link between the airport and the Manukau City Centre.

The study defined “rapid transit” in the Auckland context as including conventional busway (e.g. Northern Busway), light rail (also known as modern tram), and suburban heavy rail (essentially the current rail system). As heavy rail has the “worst case” design requirements, particularly regarding the maximum acceptable gradient, it was used to determine the rapid transit corridor requirements with the exception of the Onehunga – Hillsborough section where the terrain is a significant constraint

The first phase of the study concluded that, “on the basis of existing data and study assessments, rail was the preferred modal choice for the Manukau Harbour Crossing and airport access”.

It was subsequently concluded that the foundations of the new Manukau Crossing motorway bridge should be strengthened to enable a possible future passenger rail line to be built directly below the road structure over the central spans and this provision has been incorporated in the new bridge currently under construction. In addition Transit NZ agreed to change the design of the Motorway widening work south of the new bridge to accommodate a future rail corridor within the existing crown-owned land along the western side of the SH20 motorway between the crossing and Walmsley Road.

The second phase of the study investigated various options including busway, light rail, a heavy rail alignment following SH20, SH20A, and SH20B, and an alternative heavy rail alignment between Otahuhu and the SH20/SH20A interchange along the line of a previous designation. The selection of the preferred option took into account the risks and opportunities associated with the various options as well as the ability to accommodate freight as well as passenger services.

The preferred option (2D) is dual track heavy rail running parallel to:

- SH20 in the Avondale-Southdown corridor
- SH20 between Onehunga and SH20A
- SH20A (which includes George Bolt Memorial Drive) to the Airport
- SH20B (Puhinui Road) including a connection to the main trunk rail line opposite the route of the Manukau Rail link

It also includes the Onehunga Branch Line (currently under construction as a single track line).

This option is shown on the attached plan.

Both the ARTA Board and the ARC have endorsed Option 2D as the preferred rapid transit corridor for the south west Auckland metropolitan region and approved the next stage of the study to protect Option 2D.

Indicative Cost & Benefits

The indicative construction cost of the preferred option is \$2,178 million for a network length of 29.1km. This option has estimated net annual operating and maintenance costs of \$33.5 million, and total annual costs including annualised capital costs of \$207 million. These figures exclude revenues from air passengers.

The benefits include the provision of direct rail access to Auckland International Airport which is the major international passenger gateway to New Zealand and the adjacent activity area which is an increasingly large generator of traffic in its own right. The provision of an additional rail link across the isthmus benefits passenger and freight rail services by providing a more direct route between southern and western Auckland by-passing Newmarket. It also enables provision of a circular Auckland isthmus passenger rail service.

Issues

1. Route protection is essential. The report mentions light industrial development currently taking place alongside the SH20A corridor, the pressures to develop Onehunga Town Centre and the challenges of consenting in sensitive urban and coastal areas. These pressures and challenges “will only increase over time and have the potential to foreclose on future RTN (rapid transit network) development”.
2. Future rail freight demands and the influence that may have on timing and development of the Avondale-Southdown rail line in particular.
3. The influence economic development benefits and land use development policies may have on the sequencing of development.
4. Funding the capital and operational costs.
5. ARTA is currently working through scoping issues with NZTA and KiwiRail to proceed to next stage of investigations leading to ability to designate the route.