

MEDIA BACKGROUNDER

ALPURT B2 Environmental Enhancements

Background

Transit proposes bringing forward the construction of the Northern Motorway Extension of State Highway 1 between Orewa and Puhoi (ALPURT B2) through tolling.

The main features of Transit's proposals are a preferred toll tariff of \$1.80 (CPI indexed to opening day), electronic toll collection, continuing availability of Grand Drive as a connection to Orewa from the northern motorway and the use of the existing State Highway 1 as a non-tolled alternative route between Orewa and Puhoi.

Under the Land Transport Management Act 2003, Transit must apply to the Minister of Transport for an Order in Council to establish a toll road.

In designing and constructing the road, Transit also needs to meet the Land Transport Management Act's environmental sustainability and safety criteria.



Project Overview

Transit has established the Northern Gateway Alliance to project manage, design and construct the new motorway. Over the last few months the Alliance has been developing the design of the road and exploring a number of options for enhancing it from an environmental point of view.

The route runs for 7.5 km from the current termination of the northern motorway at Grand Drive to Titford's Bridge, near Puhoi. The motorway traverses ecologically significant and environmentally sensitive areas, including regionally significant Fern Bird habitat. It also crosses the Nukumea and Otanerua Streams, as well as the Waiwera Estuary.

The motorway will offer significant safety and time saving benefits to motorists. It will also help to relieve holiday-time congestion and heavy traffic in Orewa and Silverdale.

With the addition of the Nukumea eco-viaduct, announced today, the route will include a total of 5 bridges, along with twin tunnels through Johnson's Hill. If construction starts in December 2004, the motorway could be finished by the end of 2008.

Nukumea Eco-Viaduct

Transit is to construct a second eco-viaduct along the ALPURT B2 route.

The 210m long Nukumea eco-viaduct is in addition to the 240m eco-viaduct across the Otanerua stream. Both bridges provide important links between ecologically sensitive communities that would otherwise be severed by the road.

The Nukumea eco-viaduct, which will leave the Nukumea Stream intact, will provide an important corridor between RAP21 (Recommended Area for Protection) habitat on either side of the motorway.

The design and construction of the eco-viaducts will minimise the impact on the environment and ensure the long term survival of the habitat underneath, which will function normally after the road is completed. The height of the viaducts (the Nukumea is up to 22 metres high) means that the growth of vegetation under them will not be restricted.

The regionally endangered Fern Bird was an important consideration in the decision to build the Nukumea and Otanerua eco-viaducts. Low-flying and only capable of short bursts in the air, the birds are particularly vulnerable to their habitat being severed by the road. They will be able to move safely underneath the eco-viaducts from one area to another.

Johnson's Hill Tunnel

The construction of twin tunnels through Johnson's Hill is another major environmental enhancement for the project. Approximately eight metres high, 13 metres wide and 240 metres long, the tunnels provide a number of significant benefits:

- Aesthetic improvements – a reduction in visual impact on Johnson's Hill
- Preserving a significant corridor of native broadleaf forest
- Preserving a Site of Special Wildlife Interest (SSWI) that links the east and west coasts.
- The tunnels also provide road safety benefits by reducing the gradient of the motorway.

The tunnels are being designed in accordance with international best practice, with a strong focus on motorist safety. The twin tunnel design is a key feature, including a cross-passage between the tunnels at the half-way mark. The tunnel will be lit, ventilated and have a fire protection system.

The southbound tunnel will be two lanes and the northbound tunnel will be one lane (although it will be large enough to allow the addition of a second lane in the future, should the motorway be extended further North).

Waiwera Viaduct to be four lane

The decision to construct the tunnels has led to confirmation that the Waiwera Viaduct will have four-lanes, as originally consented. While it would be technically possible to construct the tunnels with a two-lane Waiwera bridge, a v-shaped widening at the northern end of the bridge would have been required. This solution is not aesthetically pleasing and the widening would need to be removed when the bridge was four-laned at a later date (the work would become redundant). Combined with the benefits in terms of a better driving experience and road safety, the decision has been made to four-lane the Waiwera Viaduct from the outset.

Other environmental management measures

- Revegetation is a critical aspect of the environmental work along the route, with the Northern Gateway Alliance planning to plant more than one million native plants. Eventually, the road will be fully integrated with its surroundings, with revegetation right up to the carriageways.
- A number of strategies will be used to protect fish populations. No migration barriers will be placed where fish populations live upstream, meaning fish passage to and from the sea is not obstructed. Culverts that accommodate fish passage will be constructed where the motorway needs to cross waterways that support fish communities upstream. Fences and riparian buffer strips may also be used to protect the streams.
- Special care is being taken in the research processes used to gather information about the land. For example, helicopters have been used to move drilling rigs in the Otanerua area, minimising the need for access tracks and leaving a smaller footprint on the environment.
- Construction techniques and methodology are also being carefully planned. The Northern Gateway Alliance will be taking steps to reduce sediment run-off and erosion, and using soil in the same areas so that the same plant types grow back.