

# Northern Motorway Extension Project (ALPURT B2)



<b>Location</b>	Auckland, North Island NZ
<b>Client</b>	Transit New Zealand
<b>Contract</b>	Alliance
<b>Total Cost</b>	\$NZ 358 Million
<b>Duration</b>	December 2004 - June 2009



The project is the last stage of the realignment and extension of the Northern Motorway (State Highway 1) between Albany and Puhoi, approximately 30 km north of Auckland. It extends north from Grand Drive in Orewa to connect with the existing State Highway 1 route at Titford's Bridge at Puhoi. To be operated as a toll road, it will allow through traffic to bypass the town of Orewa, easing traffic congestion in the town.

An alliance of organisations is working in partnership to design and construct the project. The Northern Gateway Alliance comprises Transit New Zealand, Leighton Contractors, Fulton Hogan, URS New Zealand, Tonkin & Taylor, Boffa Miskell and VSL.

The alliance participants were selected through an intensive submission and workshop process requiring the involvement of senior executives from all

organisations. The project involves the design and construction of 7.5 km of motorway, twin tunnels each 340 m long and 12 m wide, five bridges totalling 1.1 km in length, and five major culverts. A highlight of the project is a 520 m long balanced cantilever bridge spanning the Waiwera estuary at a height of 30 m.

The construction of the motorway faces several engineering challenges, including a number of difficult geological formations, steep terrain and the site's location within an area of significant environmental value.

Over three million m<sup>3</sup> of earthworks are required to construct the road formation, together with retaining walls up to 20 m high, 130,000 m<sup>2</sup> of pavement and 60,000 m<sup>3</sup> of concrete structures. One million native plants will be planted as part of the landscaping and environmental rehabilitation of the project route.