

Excellence In New Zealand

The Northern Gateway Alliance



The Northern Gateway Alliance was appointed by Transit NZ to deliver a major realignment and extension of the Northern Motorway approximately 30km north of Auckland, New Zealand. This is the largest single contract ever awarded by Transit NZ.

The project is being constructed through an area of very high environmental sensitivity, and complex geology and topography. It involves the design and construction of 7.5km of motorway, twin tunnels each 375m long and 12m wide, five bridges totalling 1.1km in length, and 5 major culverts.

Leighton Contractors is a key member of the Northern Gateway Alliance (NGA), which also comprises Transit New Zealand, Fulton Hogan, URS New Zealand,

Tonkin & Taylor and Boffa Miskell. Leighton Contractors also provided the Alliance Project Director for the project.

Each member of the NGA plays a critical role in ensuring the project delivers innovation, high productivity and cost effective solutions. Dedicated staff and resources from each of the participant organisations have been brought together into one team, operating at a single office, for the duration of the project.

All the participants in the Alliance operate under a contractual framework that rewards good performance against agreed project outcomes. The participants have collective responsibility for successfully completing the project on time and within budget, and for achieving all the project's objectives, such as high road construction standards, workplace safety, public communication and environmental improvements.

The alliance team takes ownership of the project's risks and opportunities, operating as a fully integrated team and providing a single point of contact for all issues involved in delivering the project.

Because of this broad-based commercial framework, an alliance has many advantages over traditional client/contractor type arrangements, where the lowest cost is sometimes given undue emphasis ahead of other priorities. Alliances are particularly suited to complex projects, especially where the interests of the community, environment, business and government must all be considered.

The project objectives for the Northern Gateway Alliance include a 'safety first' approach, team empowerment and recognition, enhanced community outcomes and engineering excellence. The performance of the Alliance will ultimately be measured against these objectives.

The project has 3 key result areas (KRAs) supported by 16 Key Performance Indicators (KPIs), with progress against them monitored monthly. To date, the alliance has recorded "groundbreaking performance" in 13 KPIs. The project is currently tracking ahead of its KPIs for forecast time and cost to completion.



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Fish Passage Trials a Success

Considerable public controversy was created when the Northern Gateway Alliance revealed that several small lowland streams would be diverted through long culverts. The public was concerned that replacing the natural in-stream habitat with

culverts could impede the passage of fish.

To allay these concerns, the Northern Gateway Alliance developed an innovative new fish baffle designed to recreate the natural stream environment within the culverts.

Subsequent trials confirmed that the baffles provide passage for native fish including inanga, banded kokopu, red-finned bully and long-finned eels. Invertebrates such as freshwater crayfish and freshwater shrimps have

quickly taken up residence inside the new culverts, indicating that the design will also prove successful in creating fish habitat. The Alliance will continue to monitor the levels and quality of stream life in the culverts.



Safety, Environment and Community

A new culvert design has improved on existing solutions for fish passages and created the opportunity for aquatic habitat within the culverts themselves. New benchmarks have also been set for erosion and sediment control in the Auckland region.

Safety has been an area of particular focus for the NGA. Strategies for successful safety management have included rolling out a programme called 'Stay Safe' with the purpose of developing safety awareness, responsibility and skills in all employees and other personnel working on the project.

In the environmental field, the Alliance has delivered many design enhancements such as extending the northern and southern tunnel portals to provide additional areas for planting, and reducing vegetation clearance in other areas. A new culvert design has improved on existing solutions for fish passages and created the opportunity for aquatic habitat within the culverts themselves. New benchmarks have also been set for erosion and sediment control in the Auckland region.

In meeting its requirements under the Land Transport Management Act (2003) the Alliance was also required to manage the social impact of construction.

A comprehensive communications and community relations programme was developed and is being implemented by on-site resources. This programme has significantly increased community support for the project and helped to raise the profile and enhance the reputation of Transit NZ and the other Alliance partners within the local community. These results were recognised when the project received the Public Relations Institute of New Zealand's award for best sustained public relations programme in 2006.



Kate Woodruffe, Community Relations Manager, Northern Gateway Alliance.

The Northern Motorway extension is due for completion by mid-2009. Further information can be obtained by visiting the project website at www.northerngateway.co.nz