



CASE STUDY: VECTOR FIBRE NETWORK

Vector Communications commissioned Northpower to build a 200 km dark fibre optic ring around greater Auckland. The fibre ring delivers high-performance, high-speed broadband capable of triple play services. This ambitious build formed part of a significant project for Vector to meet the requirements of Vodafone and to extend their core fibre network.

PROJECT SCOPE

Northpower was contracted to construct the Vector Communications fibre network with responsibility for detailed design, construction and testing of all Outside Plant (OSP).

This two-year project included the design, build and commissioning of nine new fibre optic rings, reconfiguring two rings in the Central Business District and extending and replacing fibre in two further rings.

Northpower's role began with extensive and detailed planning using Geographic Information Systems (GIS) to devise the most cost-effective routes for each stage.

With the majority of the fibre being ducted underground, construction involved extensive civil works across the city. Northpower had the responsibility as overall project manager, supervising civil works contractors and liaising with local authorities on all planning consent requirements.

CHALLENGES

The scale and complexity of this ambitious project presented huge logistical challenges. Northpower was responsible for identifying

and planning the routes for the client, while also minimising disruption to Auckland residents and commuters during construction.

With the longest section running to 56 km, and separate planning consents required for each stage of the build, it was essential to develop and maintain close working relationships with the Auckland, Waitakere and North Shore City Councils.

The project also presented a major time challenge with an intensive building program taking place across New Zealand's largest metropolitan area with key milestones set for each section.

SOLUTIONS

Due to the size of the project, Northpower set out by recruiting additional staff to ensure that it had both the skills and the capacity to manage all tasks and provide a high quality service to the client.

A detailed planning process was established, which broke the project into manageable sections and enabled the team to identify the optimal routes.

By establishing strong relationships with the local authorities and using the team's negotiating skills, Northpower was able to ensure that planning consents were granted in a timely manner and without delaying the construction process.

The Northpower team liaised closely with both the client, Vector Communications, and the end customer, Vodafone, during the design and execution of the project, to successfully meet the needs of both parties.

RESULTS

Northpower's capacity to deliver the project on time was identified at the outset as a key risk factor for Vector. This risk was addressed by Northpower's project management skills, keeping the client well informed throughout the project and meeting each delivery date. Each section was completed on budget and to the required standard.