



3-D Modelling - Alignment Design

Tonkin & Taylor's computer aided design (CAD) capabilities continue to expand in response to client needs for specialist services in the infrastructure, land development and solid waste sectors.

T&T has an impressive track record in these areas, having had a significant input into high profile projects such as SH 20/20A extension to Mangere Airport, Vector Tunnel, Northern Gateway (Albany to Puhoi motorway extension), Kate Valley Landfill, and Redvale Landfill.

Key features of our design capability includes:

- A high level of technical expertise
- Team commitment
- Efficiency and productivity.

Design capability can be divided in to alignment (string based design) and Land development (terrain modelling).

Alignment Design

Design and 3D modelling of alignments include the geometric design of roads (urban, rural and service roads), rail, tunnels, canals, pipeline networks (stormwater and sanitary sewer), and retaining walls.

12d Model is the principal design software used for these types of projects.

Key features of 12d Model include:

- Powerful string based terrain modelling particularly suited to alignment design
- Allows fast production of a wide variety of projects
- Industry standard software enabling data exchange with other software (MX Road, AutoCAD, Land Development Desktop).

Some of our recent design projects that have utilised 12d Model include:

- Tauranga Harbour Link - stormwater and retaining wall design
- Kate Valley Landfill (Canterbury) - stormwater and roading network
- Westfield Albany shopping centre - stormwater and retaining wall design
- Northern Gateway Project - stormwater design
- Mangakotutuku Stream Diversion - geometric design of a stream diversion around a opencast mine pit.

