



West Waikato Roothing Maintenance Contract – a hybrid road maintenance contract

“What counted with this contract with 20,000 cars a day passing over State Highway One, was Blacktop’s ability to provide alternative solutions for surfacings.”

- > 30,000 tonnes of asphalt laid over 5 years
- ± 2 million square metres of chipseal laid over 5 years

“Superior engineering solutions and asphalt design mixes led to a high rate of success, and reduced pavement failure.”

CLIENT NZ Transport Agency
PRINCIPAL CONTRACTOR Transfield Services Ltd



Analyse | Solve | Construct



Research | Design | Analysis



Recycle | Produce | Aggregate

Surfacing solutions developed to withstand high traffic counts and extreme movements of peaty soil

Blacktop Construction was a sub-contractor to Transfield Services who held the NZ Transport Agency West Waikato Hybrid Maintenance from 2005 – 2010.

West Waikato State Highway Network

1	Hamilton Central – Kahikatea Drive, Cobham Drive
1	Bombay – Karapiro
2	Bombay – Maramarua
26	Morrinsville
23	Raglan
3	Ohaupo

A key part of the success of the partnership with Transfield Services was the ability for Blacktop Construction to provide alternative surfacing solutions.

In the Mercer – Longswamp section of State Highway One with a high traffic environment of 20,000 vehicles per day, high deflections and extreme movements of soil, localised treatments were required to be developed.

Innovative design solutions developed include:

- A specific asphalt design by Bitumen and Pavement Limited (Blacktop's Laboratory) to change % of air voids, % of binder used in asphalt
- Use of different types of binders (polymers and emulsions)
- Multi-coat seals
- Larger sized aggregate for chipsealing

resulting in:

- creation of a pavement that was continually flexible
- durable and inexpensive surfacing solutions.

The use of polymer asphalts resulted in less rigidity and more flexibility an important feature for the Mercer – Longswamp section of highway, as this has unstable geology affecting ground stability and movement but is a highly visible part of the central North Island state highway network.

Economies developed by using recycled materials in CBD roads

In the West Waikato highway network the state highways run through the urban areas of Cambridge and Hamilton, as well as a number of villages, townships and smaller settlements. Kahikatea and Cobham Drive in Hamilton City both double as a state highway and key urban arterial routes.

In these urban areas old asphalt was milled off, treated and recycled. Asphalt overlays were also applied.

Another example whereby engineering solutions and tailored surfacing treatments create an advantage for the client and principal contractor – economically, technically and practically.

