



Route Optimisation



GHD is a leader in the field of route optimisation of arterial roads. We have produced reports for the New Zealand government detailing before and after evaluations using in-car groups to determine fuel, travel time and CO₂ reductions of route optimisation. GHD has five levels of service we provide to clients dependent on the local government or central government needs.

What is optimisation

Optimisation is:

- » Maximising the efficiency of the transport system
- » Maximising intersection and mid block capacity along the route
- » Reducing delays at intersections
- » Reducing travels times
- » Effective linking of all transport modes

The optimisation process will result in:

- » A more attractive alternative public transport network
- » An improvement in coordination resulting in a reduction in stop/start movements

- » An improvement in fuel economy due to a reduction in stop/start movements which is beneficial to the environment
- » A reduction in driver frustration and hence a safer route

Levels of optimisation

Single intersection

Local intersection operation only is optimised without reference to adjacent intersections. Intersections may be either isolated or connected to SCATS. Basic controller time settings and SCATS data are optimised.

Basic

Groups of adjacent intersections are optimised along routes. Intersections are linked together to form marriage chains. Controller time settings and SCATS data are optimised.

Geometric

Enhanced version of basic optimisation with additional emphasis on intersection and route geometric constraints. Consultation with a wider selection of interest groups.

Corridor

Optimisation of a corridor with more emphasis on the wider impacts of traffic management with a view to improving street appeal, access to public amenities etc. Economic assessments evaluated.

Area

An extension of corridor optimisation with a wider view of how an area may be treated to more effectively manage traffic.

GHD was commissioned to write up the benefits of route optimisation for the Energy Efficiency and Conservation Authority (EECA). It was shown that the benefits outweighed the costs by a ratio of 30:1 and that the work paid for itself more than 17 times in the first year.

For more information, please contact:

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