

SUBMISSION TO CONSULTING ENGINEERS OF BC – AWARDS OF ENGINEERING EXCELLENCE

Mount Lehman Interchange, City of Abbotsford, British Columbia

Executive Summary

Abbotsford was Canada's fastest growing economy in 2004 according to The Conference Board of Canada. The existing Mt. Lehman Road/Trans Canada Highway Interchange was overwhelmed by this rapid growth and the expansion of Abbotsford International Airport. Users of the interchange and surrounding intersections were subjected to long delays and compromised safety during peak hour traffic.

The City of Abbotsford and the Ministry of Transportation formed a partnership to seek a solution that would improve traffic flow, safety, aesthetics, environmental standards, and accommodation of pedestrians and cyclists, while enhancing this gateway to the City. They invited consultants to compete to create the most efficient, functional and economic design. McElhanney's submission was the winning design.

The key to McElhanney's concept was a one-way couplet connecting Fraser Highway to MacLure Road across the Trans-Canada Highway. The separation of opposing traffic flows permitted the introduction of free-flow directional ramps while maintaining a compact interchange footprint. Combined with the introduction of two twin-lane roundabouts, the final design eliminated several intersections and greatly enhances traffic access between all destinations.

The compact design footprint preserves 13.8 hectares of land for other uses. Storm water detention and bio-filtration ponds protect fish habitat from excess flows and polluted run-off. Walkways and paths provide improved access for pedestrians and cyclists. Free-flow traffic reduces noise and air pollution. The improved design geometry and sight distances increase safety.

In recognition of the innovative design, the Public Works Association of BC selected the Mount Lehman Interchange as its "2006 Project of the Year".