

# CONCRETE HIGHWAYS

## ANTHONY HENDAY DRIVE - EDMONTON, AB



### PROJECT TEAM

#### PAVING ENGINEER:

EBA Engineering Consultants Ltd.

#### CONTRACTOR:

Kiewit Management Company

#### OWNER:

Alberta Infrastructure and Transportation

### THE OPPORTUNITY

In 2003 Alberta Infrastructure and Transportation began a consultative process with stakeholders to establish specifications for alternate tendering. Subsequently alternate tenders, which include maintenance and rehabilitation schedules, have allowed contractors to respond with concrete or asphalt bids. The SW Anthony Henday Drive Tender in Edmonton was issued using these guidelines, and when the tender was awarded, the concrete bid was the lowest. This new Tender approach became one of the inaugural winners of the 'Ministers Award for Excellence in Process Innovation' competition, which began in 2005.

### PROJECT DETAILS:

- Divided highway of 14.4 kilometers.
- 230 mm concrete pavement over a 150 mm granular base course.
- Concrete 30 MPa at 28 days, flexural 4.2 MPa at 28 days.
- Tie bars at longitudinal joints 15M X 800 mm epoxy coated at 900 mm spacing O/C.
- Dowels at transverse joints 32 mm X 450 mm at 300 mm spacing O/C.
- 105,000 cubic metres portland cement concrete pavement.
- Transverse joint spacing 4.5 m.

### THE PROJECT

Anthony Henday Drive is part of Edmonton's ring road network that provides Edmonton drivers with an efficient way to move around the City. When completed in 2006, the concrete roadway was the longest in Western Canada at approximately 14.4 kilometers in length. What also makes this roadway distinctive is the use of longitudinal tining, which is a first not only for the West but for Canada. Tining is a process whereby small grooves are made in the pavement surface. Many concrete roadways use transverse tining in which the grooves run across the roadway in a shoulder-to-shoulder direction. On the Henday roadway, longitudinal tining has been substituted so that the tining will run in the same direction as the traffic flow. Tests have shown that longitudinal tining actually makes the roadway quieter.

### ABOUT THE CEMENT ASSOCIATION OF CANADA (CAC)

The CAC is the voice of Canada's cement industry. A vital contributor to the country's economy and infrastructure, the industry provides a reliable, domestic supply of cement required to build our country's sustainable communities and is committed to the environmentally responsible manufacturing of cement and concrete products. Visit [www.cement.ca](http://www.cement.ca) for more information.

### ABOUT CONCRETE ALBERTA

Concrete Alberta represents over 93% of the concrete producers in Alberta, and is fully funded by the membership of Producers, Associates and Affiliates. Visit [www.concretealberta.ca](http://www.concretealberta.ca) for more information.



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