

Detroit River Tunnel

Seepage Control - Backwall Chemical Grouting

Project: Detroit River Tunnel

Location: Windsor, ON

Client: CP Rail

Completion: April 2009

Background:

Built in 1909 under the Detroit River, the Detroit River Tunnel is located on the Windsor-Detroit railway corridor and provides a vital trade link between Canada and the United States. Over its 100 year life span the tunnel has developed water seepage issues which in turn was causing problems to the track structure within the tunnel.



Scope of Work:

Based on previous chemical grouting projects, Advanced Concrete Solutions was selected to perform "back wall chemical grouting" within the tunnel. The proposed scope of work included addressing one main leak of approximately 100 litres per minute through a "honeycomb/void" area located in the ceiling of the tunnel. The work was performed during 8 hour blocks where the tunnel was shutdown to rail traffic. The chemical grouting of this area proved successful and Advanced Concrete Solutions was asked to perform chemical grouting to several other areas within the tunnel.

In all nine leaks were successfully stopped using a total of 1470 litres of polyurethane grout. ACS played a key role in the project and all owners and consultants were greatly satisfied with the outcome of the Detroit River Tunnel grouting project.

