

REINFORCED EARTH®
SUSTAINABLE TECHNOLOGY

NEWS

June 2013



Howard Avenue

While passing through the city of Windsor, Ontario you will notice unique retaining walls on Howard Avenue showing eye-catching maple leaves that appear on the walls as if they are blowing in the wind.

Howard Avenue is a major north-south arterial road, a commuter route into downtown Windsor and a designated truck route that extends from Highway 3 to the City Centre where the Windsor-Detroit tunnel is located.

The mechanically stabilized earth (MSE) wall is a part of the construction of the Howard Avenue CPR Grade Separation in Windsor which included two bridges to carry railway tracks and a security/maintenance road running parallel to the railway over Howard Avenue.

Reinforced Earth Company Ltd. (RECo) was awarded the contract by Coco Paving Inc. to design the retaining walls for the Howard Avenue/CPR grade separation. The Reinforced Earth® walls were constructed at the four

quadrants of the underpass.

Howard Avenue is designated a "Civic Way" in the City of Windsor's Official Plan and for this reason, aesthetics were an important consideration for this project. The project owner requested that the walls have an architectural finish that would be both aesthetically appealing and reflective of the surrounding area. The design of the exterior finish of the underpass's retaining walls pay tribute to nearby Memorial Park and monument to war veterans.



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Howard Avenue

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McCormick Rankin (MRC), the project consultants and City of Windsor decided on the maple leaf random pattern since it represented not only the surrounding area but being close to the Detroit border it also represented Canada.

The concept of the design was to portray the maple leaf in different states of motion. These de-

signs called for each maple leaf to be raised from the precast panel. A rough texture was chosen to simulate the leaf surface. The concepts were presented to the project owner who then added their own touch to complete the designs.

Various unique panels were created that would be placed in various combination along the walls to create the appearance of the maple leaves blowing in the wind.

Once the structure was completed the leaf panels were painted a golden brown to emulate the fall colours.

This project was recognized with an Award of Distinction by the Windsor Construction Association through their 2011 Awards of Excellence Program.



Current Owner:
City of Windsor

Project was jointly funded by the Federal & Ontario Governments along with the City of Windsor

Consultant: McCormick Rankin

Contractor: Coco group of Companies

Area: 1350m²



Port Cartier Seawall

While visiting the Ville de Port Cartier on the shore of the Gulf of St. Lawrence approximately 620km North East of Quebec City you will notice the rejuvenation of the waterfront. The main objective for this project was to provide friendly access to shops that lined the waterfront. The retaining wall allowed a walkway and biking path for those who wished to enjoy the beautiful waterfront.

Construction operations were timed to minimize the effect on the local salmon population that currently inhabited the area. The structure would be exposed to tidal fluctuations on a daily basis and

therefore RECo designed the MSE wall using GeoStrap® soil reinforcing straps. This type of reinforcing was designed for the aggressive salt water environment. This was the first time GeoStrap® structure was built in the Province of Quebec.

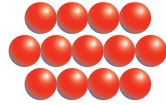
A major site and construction difficulty was the tide. Work was limited to low tide and the construction crew would be able to properly place the panels, lay out the GeoStrap® and backfill and still have spare time to achieve sufficient compaction. Temporary break walls were constructed to divert some of the water away from the working areas.



As the wall was constructed and increased in elevation the tide water became less of an issue as the workers could continue construction even during higher tides which helped in the construction schedule.



Owner: Municipalité de Port-Cartier
Consultant: Axor Experts-Conseils Inc
Contractor: Polaris Inc.
Area: 1235m²



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Reinforced Earth Company Ltd. will be participating with a booth at the following Conferences:



Transportation Association of Canada (TAC) Conference

Winnipeg, Manitoba

September 22 - 25, 2013



Canadian Geotechnical Society (CGS) Conference

Montreal, Quebec

September 29 - October 3, 2013