

Saskatchewan Crescent

Saskatoon, Saskatchewan, Canada



Plasti-Fab GeoSpec® saves unstable slope along South Saskatchewan River

In June of 2012, city officials in Saskatoon, Saskatchewan noticed cracking in the pavement of the Saskatchewan Crescent roadway at the intersection of 17th Street East, a popular thoroughfare that follows the South Saskatchewan River through the city. Engineering firm Golder Associates investigated the issue and determined the cracks were the initial signs of a much greater problem: the slope below the roadway descending to the riverbank was failing.

Engineers at Golder Associates developed a plan to stabilize the slope supporting the road using expanded polystyrene (EPS) geofabric from Plasti-Fab. Used in place of soil or other lightweight fill materials, Plasti-Fab GeoSpec® lightweight fill material reduces the mass and associated gravitational forces on the sloped embankment.

Plasti-Fab GeoSpec is up to 100 times lighter than in-place soil and it allowed project engineers to stabilize the failing slope close to the road surface, with minimal disturbance to the trees and vegetation along the riverbank.

“We did the analysis and looked at a variety of potential remediation options,” said Laurie McEachern, the project

coordinator for Golder Associates. “The benefit of this design choice is that it reduces the loading at the crest of the slope because EPS is a lightweight material.”

“One of the key benefits of using EPS for this particular site was that the remediation plan involved minimizing the amount of trees that had to be removed along the riverbank,” McEachern added.

With construction beginning in September of 2013, working with GeoSpec allowed construction to proceed seamlessly through the winter months. Because GeoSpec is produced in large blocks, it also reduces labor and overall construction time compared to traditional slope remediation techniques, permitting the roadway to be completed faster and with less traffic disruption.

“By specifying GeoSpec lightweight fill material from Plasti-Fab, Golder Associates helped speed up the construction schedule and preserved the trees along the South Saskatchewan riverbank,” said Plasti-Fab Sales Representative Neil Henrikson.