

The on-site solidification of Tunneling/Micro-Tunneling spoils to reduce cost and improve efficiency in urban infrastructure project

Project Scope: Eglington Crosstown LRT Subway tunnels

Aecon Dragados JV was selected for the Construction of twin Subway Tunnels under Eglington Ave East from Hwy 404 to Allan Rd in Toronto Ontario.

The Challenge: The excavation of the tunnels created massive amounts of wet to damp Spoils. These spoils were hauled offsite to a receiving site in the west end on Toronto, this was done after hours to reduce truck and traffic impacts. Typically, these spoils will be wet in nature and difficult to transport. Hauling of wet spoils reduces truck capacity, therefor increasing the number of trucks on roadways. Also Increases mud tracking on roads and cleanup costs. And Wet spoils are classified as a Liquid Industrial Waste Stream, which would then have to go to a special facility for disposal.

The Solution: Di-Corp together with MetaFlo Technologies has teamed up to produce a solidification Reagent called EarthPro Mud Terminator. The Environmentally Friendly Reagent when mixed in low doses, quickly converts the wet spoils to a solid. This drastically reduces the number of dump trucks, lessens road impact and clean up. And most importantly, reduce disposal costs, as the spoils can now be hauled to regular landfill or receiving sites as a solid, thus eliminating the high tipping fees. This blend proved to be 50% more effective than their previous Reagent. EarthPro Mud Terminator was used at a Dosage rate of Only 0.2% by Weight and only added less than 0.5% bulk.