

SLEEPING GIANT SUBDIVISION

FLEXICRETE



Project: Innisfil, ON – Sleeping Giant Subdivision

Challenge: A couple of 4m wide maintenance vehicle ramps was required in the design of a storm-water management forebay. At a maximum slope of 4:1, a simple gravel ramp would be susceptible to future erosion as gravel particles could detach and be transported down the ramp from potential stormwater runoff.

Solution: Urban Watershed

Group Ltd, the engineering consultant, incorporated FLEXICRETE, an articulated concrete block revetment product, into the design.

Project overview:

The contractor, Maacon Construction, placed and compacted the gravel base; specifically, 300mm granular 'B' sub-base and 150mm granular 'A' base respectively. A non-woven geotextile was then placed over the base. This geotextile functions as a separator to prevent granular fines from migrating up

through the spacings of the blocks. Additionally, the geotextile remains permeable to water movement, i.e. water is allowed to infiltrate through the granular base.

Finally, using an excavator, the mats, with dimensions of 2.4m x 3.6m x 0.081m thick, were installed with the use of a custom-made spreader bar, supplied by Terrafix. For the turning sections of the ramp, blocks were saw cut at specific angles.



FLEXICRETE is a system of solid concrete blocks connected together to form continuous inter-connected areas. Concrete strength used is 30MPa or higher in accordance with Canadian Standards CSA-A23. Galvanized mesh reinforcement wires (8 gauge) are cast into the blocks. The standard block size is 400mm x 400mm x 81mm.

