

# St. Marys Cement's Alternative Fuels Building

Bowmanville, ON, Canada (2017)

PRODUCT USED:

**Hard-Cem®**

**OWNER:**

St. Marys Cement

**ARCHITECT:**

Barry Bryan Associates

**GENERAL CONTRACTOR:**

Peak Construction Group Ltd.

**READY-MIX SUPPLIER:**

Canada Building Materials Ltd.

**APPLICATOR:**

Belmont Concrete Finishing

**DISTRIBUTOR:**

Form & Build Supply

## BACKGROUND

St. Marys Cement has been producing cementitious materials at their six manufacturing plants for decades. Recently, however, the team at the company's Bowmanville plant saw the need for a new unheated alternative fuels building. Working together with the Barry Bryan Associates team, they drew up a design for it.

During its creation, the design team acknowledged that the concrete floor would be exposed to heavy industrial work, which could cause significant abrasive wear, reduce load-carrying capacity, and create a loss of riding surface. To prevent that from happening, they searched for a concrete hardening solution that would be compatible with the air-entrained concrete mix they had already specified.

## SOLUTION

Their search ended when they found Hard-Cem, an integral hardening admixture, for their eight-inch-thick, 20,000-square foot unheated building slab. They chose this admixture because it provides abrasion resistance to the air-entrained concrete mix, which is something traditional broadcast hardeners are not suitable for. Of course, Hard-Cem is not just fully compatible with conventional admixtures and air-entrained concrete. It also doubles concrete wear life under harsh conditions. With these qualities, Hard-Cem provided a durable abrasion-resistant surface for St. Marys Cement's concrete slab, ensuring that the concrete would last longer in its industrial environment.



SMART CONCRETE®

