



# IKO Industries Plant Expansion Stormwater Management



***Nilex's recommended underground stormwater system's versatility solves on-site space challenges.***

**LOCATION:**

*Calgary, Alberta*

**PRODUCT:**

*Stormwater Chambers, LLDPE Liner,  
Non-woven Geotextile*

**PROJECT PARTNERS:**

*Owner*

*IKO Industries*

*Consultant*

*Jubilee Engineering*

*Contractor*

*Kang Construction*

*Completion Date*

*October 2010*

IKO Industries, recently completed the expansion of their existing shingle manufacturing plant in Calgary. As part of this expansion, the City of Calgary mandated the development of a stormwater pond on-site to manage the stormwater run-off.

## Challenge

Due to the large building footprint, developing a stormwater pond on-site would have resulted in the reduction of storage space and staff parking. IKO needed a storage system that would contain approximately 87 m<sup>3</sup> of stormwater as infiltration was not allowed on this site.

## Solution

The underground chamber offered a solution to the limited space issue. Rather than develop a stormwater management pond and take up needed space, the chamber was installed on-site under an existing storage area which consisted of a roof and concrete block walls on three sides. Even though this was a confined space, the stormwater system was easy to install and provided minimal disruption to the site. The City of Calgary reviewed and approved the system based on its technical merit.

# IKO Industries Plant Expansion



## Installation

Installation of the stormwater system was simple, and began with the excavation of a 136 m<sup>3</sup> bed in floor of the storage area. The non-woven fabric was placed along the sides and bottom of the bed, followed by a six inch layer of crushed stone. Once the chamber was placed into the bed, more crushed stone was poured on top of the chambers to the design thickness above the chambers, followed by compaction materials that were placed to the proper elevation and compacted. The completed area was then paved over to, once again, be the floor of the storage area.

During installation, it was discovered that two LLDPE pipe boots needed to be installed. Nilex Construction, a division of Nilex was able to quickly mobilize and resolve this issue.

## Results

With the installation of the system underground, IKO Industries was able to meet the City of Calgary's stormwater run-off and retention guidelines without sacrificing any existing storage or parking area. The storage capabilities of the underground system will allow IKO Industries to regulate the stormwater outflow to the City stormwater system without infiltrating water to the groundwater.

*"The stormwater system was simple to install. We will be recommending, and looking forward to using this system for future projects." - Kang Construction*

## The Nilex Advantage

Nilex is committed to unearthing better results. Whether it's for a civil, resource or environmental project, we offer the latest engineered and technically superior materials and techniques to save our customers time and money, and minimize the need to move or remove earth, and reduce the need for granular materials.

With over 35 years experience, a long-standing commitment to the environment and highly qualified staff, Nilex delivers the products and technologies that give clients an economic advantage with environmental benefit.