

CASE STUDY

IKO Industries Plant Expansion Calgary, Alberta

Storage Provided: 87 m³

Models: Recharger 330XLHD

Installed: October 2010

Project Engineer: Jubilee Engineering
Calgary, Alberta

Contractor: Kang Construction
Calgary, Alberta



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

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 m³ of stormwater as infiltration was not allowed on this site.

The CULTEC underground chamber system offered a solution to the limited space issue. Rather than develop a stormwater pond and take up much needed space, the chambers were installed under an existing storage area which consisted of roof and concrete block walls on three sides. Even though this was a confined space, the CULTEC 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.

Installation of the CULTEC system was simple, and began with the excavation of a 136 m³ bed within the floor of the storage area. The

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IKO Industries Plant Expansion

Calgary, Alberta *(continued)*

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.

"The CULTEC system was simple to install. We will be recommending, and looking forward to using the CULTEC system for future projects," said a representative of Kang Construction.

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.

With the installation of the underground CULTEC system, 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 CULTEC system will allow IKO Industries to regulate the stormwater outflow to the City's stormwater system without infiltrating into the groundwater.



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