CASE STUDY

WAL-MART

Grand Prairie, Alberta, Canada

Storage Provided:	16,390 CF
Area:	34,445 SF
Models:	Recharger® V8
Number of Units:	175
Installed:	September 2011
Project Engineer:	E2K Engineering Ltd. Calgary, AB CANADA
	Counterpoint Engineering Vaughan, ON CANADA
Contractor:	Norson Construction Ltd. Edmonton, AB CANADA

Wal-Mart, (NYSE: WMT), an American multinational retailer corporation that runs chains of large discount department and warehouse stores, is undergoing an expansion to transform its Grand Prairie, Alberta, Canada location into a Super Center. As part of the major renovation, the project included a reevaluation of the existing stormwater management practices to resolve flooding issues onsite.

The project called for an additional 44,000 square foot expansion to the west of the existing Wal-Mart, situated on a 14.8 acre site, and included new parking areas. According to Michelle Zwick, Staff Engineer for CULTEC, the discharge flows prior to the expansion were 8.5 gallons per second (32 liters per second).

An underground water storage chamber was selected to address the existing flood issue and to improve the emergency overland flow route. The engineers at Toronto-based

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WAL-MART Grand Prairie, Alberta, Canada *(continued)*

Counterpoint Engineering and E2K, in Calgary, used CULTEC's plastic stormwater chamber system, constructed of 175 Recharger® V8HD™ units, which provided a storage volume of approximately 16,390 cubic feet (464 m^3). The chamber provided the largest amount of storage for this project, while also offering the smallest footprint. It is 32 inches high and 60 inches wide and can hold a minimum of about 100 cubic feet of water, with a bare chamber capacity of 8.68 cubic feet per linear foot.

"In our opinion, the CULTEC system is very useful in that it allows for stormwater storage below grade without wasting precious above-grade land," said Brad Ellingwood, Owner of E2K. "It naturally filters runoff from the surface, which would eventually make its way to the groundwater table."

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