

CASE STUDY

The Home for Little Wanderers Walpole, Massachusetts

Storage Provided:	14,817 cu. ft.
Area:	8,209 SF
Models:	Recharger® 330XLHD
Number of Units:	169
Installed:	February 2012
Project Engineer:	Beals and Thomas, Inc. Southborough, MA
Contractor:	Rebco, Inc Walpole, MA



The Home for Little Wanderers (The Home), a nationally renowned, non-profit child and family agency delivers services to thousands of children and families each year through residential, community-based and prevention programs, direct care services and advocacy. The Home is located on several campuses throughout Massachusetts, with the Clifford School situated at Longview Farm in Walpole, and the Knight Children's Center in nearby Jamaica Plain. When The Home decided to consolidate the Knight Children's Center into the Clifford School/Longview Farm campus, engineers at Beals and Thomas, Inc. worked with contractors at Rebco Inc. to design and build the new campus layout, including the addition of a stormwater retention system in the largely residential setting.

The existing 16,000 square-foot school building did not answer the many needs of the current student population that the agency serves. The proposed project called for the expansion and renovation of the existing school building, which included the construction of a two-story (28,500 SF) addition containing clinical offices, and a new kitchen and cafeteria. In order to house new students the existing 11,000 square-foot dorm is scheduled for demolition and four new dormitory buildings are proposed: two 2,600 square-foot residential cottages, a large 16-bed, 6,030 square-foot residence, and a small eight-bed, 3,300 square-foot residence.

The school facilities are clustered in a 10-acre area of the property, with most of the open space reserved for students' use as ball fields or gardens or dedicated to the large leaching field. Engineers were tasked with finding a location for the retention system within this limited area that had favorable soils and would not impact wetland resource areas or the functionality of the site.

To maximize the useable open space for students, the engineers chose an underground chamber system provided by CULTEC, Inc. The Recharger® 330XLHD

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The Home for Little Wanderers

Walpole, Massachusetts *(continued)*

was the best fit for the site, as it efficiently provided a large amount of storage within the desired footprint of the system, and still blended into the natural grade. The chamber alone holds nearly 475 gallons, and has a minimal installed storage of approximately 80 cubic feet per unit when surrounded with stone. Chambers are equipped with two side portals that allow manifolding at any point within the system, eliminating the need for external manifolds.

“CULTEC’s system was very user-friendly and easy to install,” said Elizabeth Clark, Senior Civil Engineer at Beals and Thomas, Inc. “The variety of chamber heights they offer allows for maximum flexibility for designers.”

The system included 169 units of the Recharger 330XLHD installed in a bed adjacent to a ball field and garden. Though an infiltration basin was considered, a subsurface system was used due to safety concerns, since school children would be playing nearby. The subsurface system also eliminated the need for fencing that the basin required, opening up the space for use and improving the aesthetics of the site.

According to Clark, the CULTEC system was also chosen because the development needed to comply with the state’s stormwater regulations imposed by “The 2008 Massachusetts Department of Environmental Protection Stormwater Management Handbook” and “The Town of Walpole Stormwater and Erosion Control Bylaw Regulations.” The CULTEC system successfully met the groundwater recharge and peak runoff rate mitigation requirements of these regulations.



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