CASE STUDY

Trinity-Pawling School

Pawling, New York

Storage Provided:	7,840 cu. ft.
Area:	3,504 SF
Models:	Recharger [®] 330XLHD
Number of Units:	95
Installed:	May 2013
Project Engineer:	KG&D Architects Mt. Kisco, New York
Contractor:	Fastracs, Inc. Red Hook, New York



Founded in 1907, Trinity-Pawling School is a traditional college-preparatory boarding and day school for boys grades seven through 12 and post-graduates. The school currently has a total enrollment of 305 students with 54 faculty members and is located in Pawling, New York. Trinity-Pawling offers 13 varsity sports, including football, soccer, basketball, squash, lacrosse and tennis. As part of a major ongoing renovations project, student-athletes will soon be able to play on a brand new artificial turf field.

Trinity-Pawling School's new turf field, which will include lights for night games and ample parking, will be located in an area behind the athletic complex currently used for parking and the football practice field, and will be utilized by Trinity-Pawling's varsity football, soccer and lacrosse programs. Part of the process for designing and installing the new turf field included the design of a new subsurface stormwater management system. Engineers at KG&D Architects collaborated with contractors from Fastracs, Inc. to design and install a subsurface system that would effectively provide detention to the site.

The team chose CULTEC's Recharger 330XLHD[®], an efficient chamber that has a lower volume in the early stages of a storm, and a total of 95 chambers in five rows were installed beneath the site for the new turf field.

The Recharger 330XLHD has a capacity of over 400 gallons, making it one of the largest CULTEC chambers available. The unit itself measures 52 inches wide by 30.5 inches high and has an installed length of 7.5 feet long with a bare chamber capacity of 7.5 cubic feet per linear foot. The CULTEC system provided a total of 7,840 cubic feet of storage, maximizing storage capacity within a small footprint to best satisfy the requirements of the site.

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CULTEC

Trinity-Pawling School Pawling, New York (continued)

While the installation went smoothly, the architects and excavators faced a couple of challenges during the process.

"Our initial concern was with the existing slope of the site. We had to excavate at one end and fill at the other in order to level out the surface," explained Jerry Paschal, contractor with Fastracs, Inc. "Holding the site walls fairly clean was also an issue, because there is nine feet of stone, but we only needed to excavate a foot and a half. The rest of it is fill."

The CULTEC system features two inlets and one outlet. The turf field has an under-drain network throughout its surface, which connects to a header pipe along the south side of the field and leads into the south side of the system. The second inlet pipe is located at the north side of the CULTEC system, and carries runoff from the new parking area, walkways, spectator areas and existing roof draining systems. Runoff from the parking lot is pre-treated in dry swales adjacent to the parking area before discharging into the underground chambers.

It took approximately a day and a half to install the entire CULTEC system, and students will be able to use the new facility by the opening of school in the fall of 2013.







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