

RECREATIONAL

Fanwood-Scotch Plains YMCA, Scotch Plains, New Jersey

For the last 60 years, the Fanwood-Scotch Plains YMCA has grown to provide programs and services to more than 10,000 people annually. Five years ago the organization once again saw the need for expansion, with plans including creation of an additional swimming pool, nursery, children’s center and double-capacity parking. As the plans were being developed for the 8.34-acre site, the engineering firm EKA Associates from Scotch Plains, N.J., considered various systems to manage stormwater run-off created by the new impervious surfaces.



Adjacent to wetland areas, the YMCA facility faces seasonal high groundwater elevations. This, coupled with the need for more parking spaces, precluded the engineers from using an above-ground basin. Further, due to safety concerns, an above-ground pond would not have been the best choice for a facility with so many children.

“Being located in a residential area and our proximity to wetlands greatly limited our options in terms of stormwater management,” said Karin Dreixler, Executive Director of the Fanwood-Scotch Plains YMCA. “The engineers at EKA Associates brought the CULTEC system on board as a solution to meet all the site’s requirements.”

Engineers needed a stormwater system that could provide a maximum storage capacity without occupying separate surface areas. They found a solution in the CULTEC underground stormwater management system, a Clean Water Act-compliant Best Management Practice that successfully addressed land constraint, wetland proximity and high water table issues.

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CASE STUDY

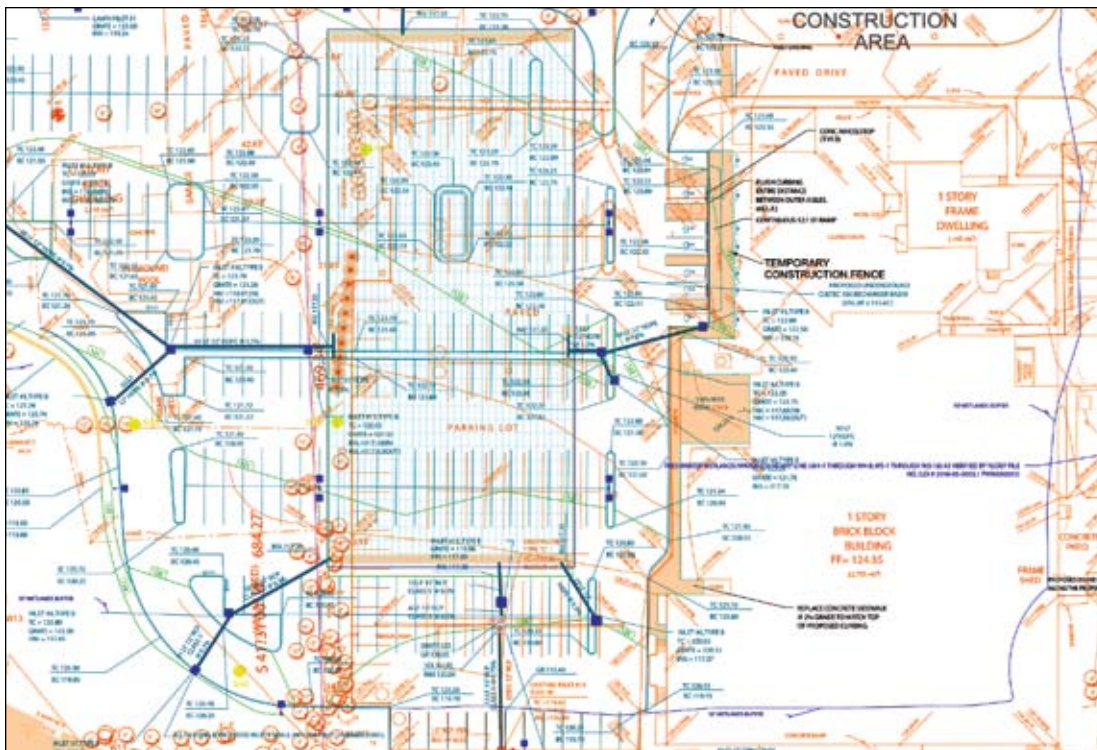
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Specific to this application, 1,326 CULTEC Recharger 180 stormwater storage chambers in conjunction with CULTEC's own High Volume Low Velocity (HVLV) 180 Header System employed as the internal manifold were installed to collect stormwater from the site. As stormwater run-off travels through the HVLV system, side portals make the necessary tee connections and convey the water into Recharger chambers. On the YMCA site, the run-off will be detained, or stored for slower release, as well as infiltrated back into the ground. The system's capacity is 50,209 cubic feet.

"Each site presents its own stormwater management challenges, which affect the choice of a system," said Jeff Cadoff, an engineer at EKA Associates. "In this case, an underground system was the only way to go, and CULTEC presented the largest choice of product types and chamber sizes to fit our needs."

"It was our first time installing a CULTEC stormwater system, and we were amazed at how smoothly the whole process went," said contractor Guy Checchio of Checchio Paving. "The CULTEC staff were great to work with: They explained how the system works, made a few necessary adjustments and even came out to the site and helped lay it out."

The Recharger 180 is a high-profile, high-capacity chamber constructed of high-density polyethylene for greater chemical resistance to parking lot run-off. Each chamber incorporates a built-in endwall for strength throughout the system and features CULTEC's patented, overlapping rib connection, which allows easy installation and a stronger connection between chambers.



Installed:
February 2008

Contractor:
Checchio Paving
Scotch Plains, NJ

Engineer:
EKA Associates
Scotch Plains, NJ

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Protected by one or more of the following patents: U.S. Patent No. 5,087,151, U.S. Patent No. 5,419,838, U.S. Patent No. 6,129,482, U.S. Patent No. 6,322,288 B1. Other U.S. and Foreign patents. Other U.S. patents pending. RECHARGER®, CONTACTOR®, HVLV™ and STORMFILTER® are trade names of CULTEC, Inc.

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