

CASE STUDY

Nicolock Permeable Pavement Project Lindenhurst, NY



Lindenhurst Memorial Library

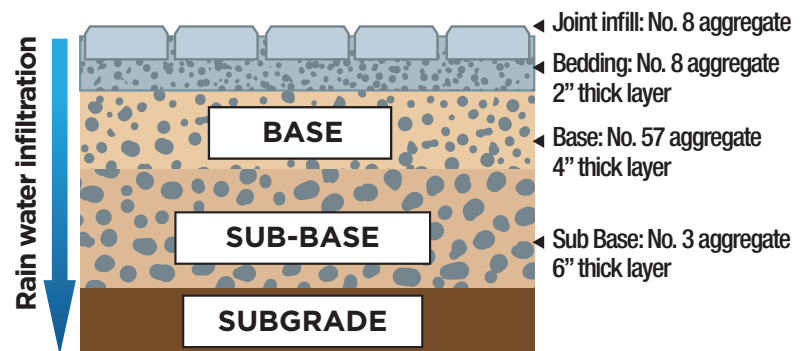
LINDENHURST MEMORIAL LIBRARY INSTALLS INNOVATIVE STORMWATER MANAGEMENT PARKING LOT

With the help of New York State funds, Nicolock's SF-Rima permeable pavement system was used to construct a green parking lot in lieu of a traditional impervious blacktop lot with stormwater drywells. The 6,000 SF, 20-space parking lot was constructed in 2009 at the Lindenhurst Memorial Library using an open-graded aggregate base and gravel in the joints between the pavers to allow for the direct infiltration of rainwater into the pavement and ultimately into the subgrade soil. The environmentally friendly project also includes solar-powered LED lighting and a perimeter of native species plants requiring no special irrigation. Nicolock's light colored Golden Brown Blend with Mojave Tan (used for line marking) pavers were used on the project to enhance the cool surface of concrete which is also good for the environment.

The project was designed by Bob Retnauer and Steve Nieroda of RDA Landscape Architects in St. James, NY. "This is a Low Impact Development solution for managing stormwater. It works particularly well in Long Island where naturally sandy soils drain well and the Island depends on stormwater recharge for water supply wells. If a traditional non-permeable pavement was used on this project, most of the stormwater on the parking lot would wind up in the Great South Bay through sewer systems." Nicolock assisted with the design by making recommendations for base thickness predicated on the stormwater management objectives.

Local officials have been impressed with how the parking lot has eliminated stormwater runoff, even during unusually large rainfalls. Peter Ward, the library's director hopes others adopt this approach to paving and stormwater management. "A parking lot surface that produces no run-off and keeps rainwater on-site is a great way to protect our natural resources", he said.

Nicolock's SF-Rima Paver Cross Section



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From a leading New York Metro area newspaper on March 30, 2010.



Peter Ward, director of Lindenhurst library, calls new lot "amazing."

Despite rain, library's parking lot flood-free

The rain sloshing down on Long Island Tuesday flooded roads and turned driveways into lakes.

But no water pooled in the new lot at Lindenhurst Memorial Library - even during the worst of the storm.

The parking lot is made of permeable paving stones atop a bed of absorbent gravel that soaks up excess water that would otherwise eventually end up in the Great South Bay. The lot was built last summer with the help of \$200,000 in federal stimulus money.

"It's amazing the way this thing sucks up water," said Peter Ward, the library's director. "Every time it rains like this I always check the parking lot."

It may be the first parking lot of its kind on Long Island. Nassau and Suffolk plan to build similar test sites this spring at county facilities. It's one of the newer approaches to dealing with storm water runoff, which environmental officials say is one of the biggest pollution problems facing U.S. waters today.

Storm water is a particular problem along densely populated stretches of the South Shore, where pavement has replaced open space and storm sewers funnel rainwater to creeks and estuaries. Excess water that would normally be soaked up by Long Island's sandy soils washes off roads and construction sites, picking up contaminants along the way that can lead to beach closures and prevent safe shellfish harvesting.

At the Lindenhurst library lot, the permeable paving stones themselves absorb some water; more is drained through the gravel that surrounds them. Precipitation trickles down through three progressively finer grades of gravel that help filter out pollutants before the rainwater reaches the soil, according to Bob Retnauer of RDA Landscape Architects in St. James, which designed the lot.

"We already have a great natural resource that has been severely compromised by storm water," Ward said. "This parking lot shows an alternative that is, in some part, an answer to a long-standing problem."

Lindenhurst Memorial Library

