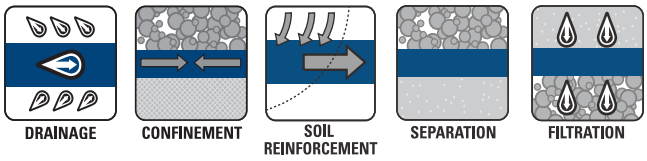
TENCATE Mirafi®



Case Study

application	Subgrade Reinforcement
location	McGrath Park, Salem, MA
product	Mirafi® RS380*i*
job owner	Town of Salem, MA
engineer	Tighe & Bond
contractor	Farnese Construction Inc.
date of installation	March 2012

TenCate® develops and produces materials that function to increase performance, reduce costs and deliver measurable results by working with our customers to provide advanced solutions.

THE CHALLENGE

McGrath Park in Salem, MA had been used for many years by several youth soccer teams. The fields were built over the site of an old municipal landfill. The landfill was capped, but had deteriorated over time causing differential settlement. The fields were closed due to safety reasons caused by differential settlement making the fields unplayable.

The park's challenge was to rebuild the existing soccer fields, build new basketball courts, a playground, walking paths and to create 70 new parking spaces over the old landfill without major over excavation.

THE DESIGN

TenCate Mirafi® RS380i* geosynthetic was chosen because it provides separation as well as subgrade reinforcement while spanning voids of the unsuitable material below. Mirafi® RS380i was also chosen because it provides high filtration rates. High filtration was needed because the soccer fields required free draining sand be placed immediately on top of the geosynthetic. An additional benefit was Mirafi® RS380i's strength and visibility (orange yarns) which created a warning barrier over the old landfill waste.

Placement of Mirafi® RS380i geosynthetic with structural gravel.

Compacting the structural gravel.

TENCATE Mirafi®

THE CONSTRUCTION

Construction began on the 1.4 million dollar overhaul of McGrath Park. The soccer fields were reconstructed by placing 18" of free draining sand on top of the geosynthetic. Another 6" of loom was placed on top of the sand layer and then seeded.

For the new parking lot, an old tennis court that had been previously used for parking was removed and 12" of structural gravel stone was placed on top of the Mirafi® RS380i, followed by 6" of graded crushed stone topped with 3" of asphalt.

The new basketball courts were constructed using the same method as the new parking lot. Next to the basketball courts a new playground was built following the same procedure without the blacktop.

THE PERFORMANCE

The Town of Salem, MA. created a much better facility which is a huge improvement over the previous playing fields.

Thanks to TenCate Mirafi® RS380i, the project was completed on time and the fields were ready for the Fall of 2012 soccer season. Currently, the fields are being used by over 400 children participating in the town's soccer program.

Spreading the structural gravel.

Completed parking lot and soccer fields.

*Patent pending

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