

Case Study

application | **Segmental Retaining Wall**
location | **Manchester, NH**
product | **Miragrid® 3XT, 5XT and 10XT**

job owner | **Manchester Boston Regional Airport**
engineer | **Keystone Retaining Wall Systems**
contractor | **Vermont Lumbar & Stoneworks**

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

Due to continual growth in the Manchester, New Hampshire area, as well as its proximity to the greater Boston area, the Manchester Boston Regional Airport incorporated an expansion phase that included facility upgrades. These facility upgrades also included a runway expansion.

THE DESIGN

Constrained by the existing airport entrance roadway, a segmental retaining wall (SRW) utilizing Keystone Compac and Miragrid® XT geogrids was designed to maximize the available runway length. The wall had to be both structurally sound and aesthetically pleasing.

THE CONSTRUCTION

This phase of the project required a 28' high retaining wall. One wall section had two 14' tiered retaining walls that then blended into a third wall. All three walls merged at the end of the span to create a structure with approximately 100,000 face square feet.

THE PERFORMANCE

The Keystone Compac walls utilizing Miragrid® XT geogrids provided a structural SRW that blended with existing walls. This combination provided an excellent alternative to conventional, poured-in-place concrete walls.



First course of block at lowest elevation.



Placing blocks on leveling pad, forming radius



Completed wall 28".



Tiers coming together at the end of the wall.



Completed wall.

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