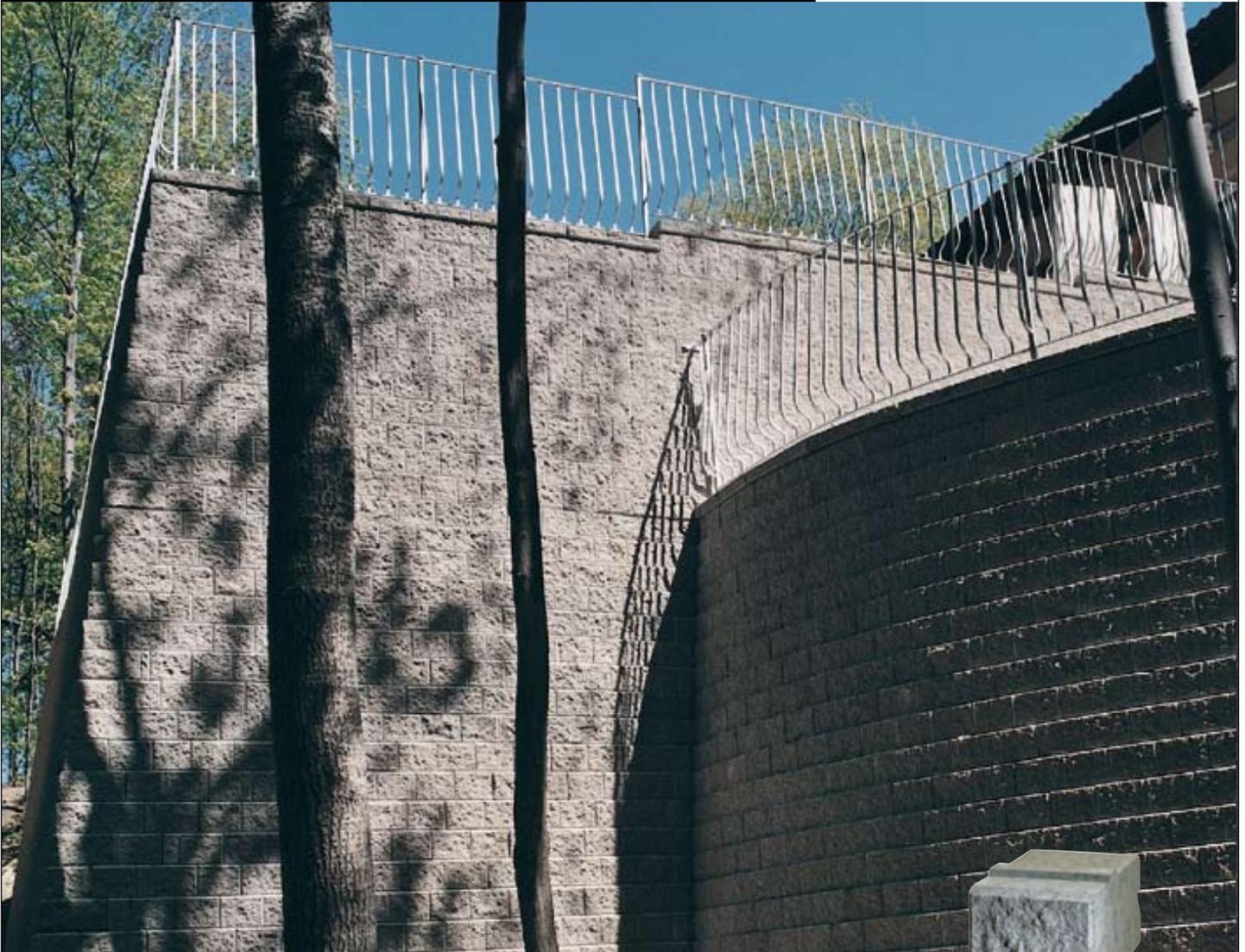


# case study: A Residential Delight

Pisa2®



**project details**

wall system	owner	engineering	manufacturer	installer
Pisa2 with Stratagrid 200 Geogrid Reinforcement	Private Residence	Moraw Consultants Newmarket, ON	Unilock, Ltd Georgetown, ON	Regent Landscape Ltd. Newmarket, ON

>> High Wall



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## case study:

# A Residential Delight

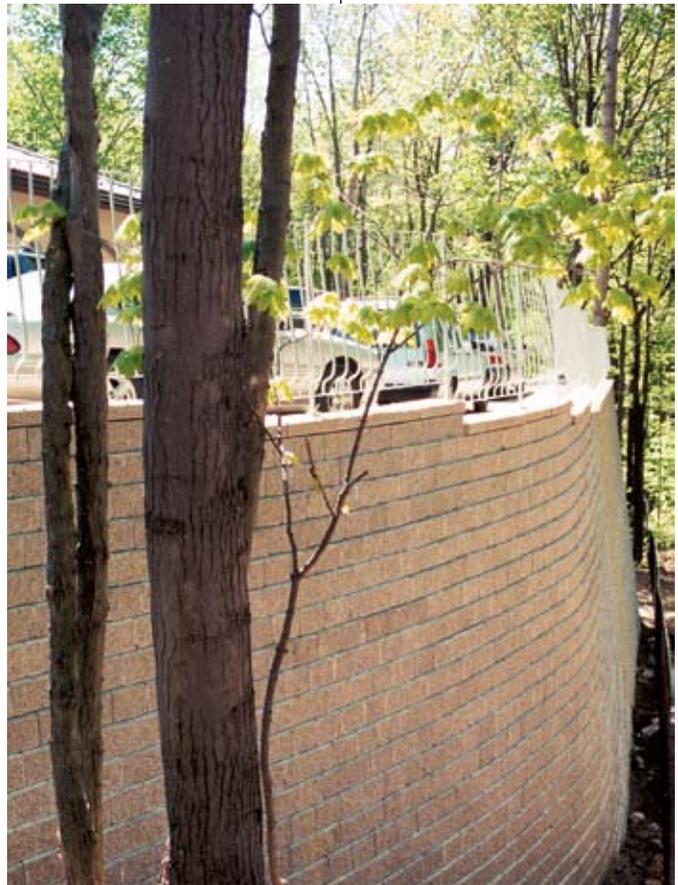
The land on this residence was very uneven and was causing grading problems with the landscaping design. The goal of this project was to aesthetically maintain the grade difference between the existing topography and the proposed driveway elevations, while keeping costs low. With this in mind, Bob Morawczynski along with Moraw Consultants used the Risiwall software (available from [www.risistone.com](http://www.risistone.com)) to design a project that utilized the Pisa2 system.

The proposed wall was to be located in close proximity to the house, and the homeowner required a balcony that extended from the house and ended directly behind the wall. This meant that a concrete footing would have to be poured within the fill material behind the wall. In order to minimize the effects of the balcony on the wall, it was required that the balcony's foundations be extended to the base of the wall, transmitting most of the external forces to the wall's foundation soil.

To meet the design requirements set forth by the Ontario Building Design Code, the wall required stabilization using the Stratagrid 200 extending into Granular B backfill. To accommodate the balcony footings, the sonotube was placed in the Granular B as the wall was constructed, and the geogrid was cut perpendicularly to the wall so that it could be wrapped around the sonotube. These procedures ensured the integrity of the wall.

In total the design included two walls with a combined face area of 400 m<sup>2</sup> and a maximum height of 7.9 m. At the beginning of the summer in 1999 with a crew of three, the wall was placed at around 24 m<sup>2</sup> a day, and the job was completed in approximately two weeks. Moraw Consultants verified that the wall was constructed to meet the design specifications and provided certification of the wall.

The owner of this residence was provided with a stable and attractive wall that generates the required grade difference for his driveway. He is very pleased with the results of the construction. The results show that a properly constructed Pisa2 wall can be an economical and aesthetically pleasing way to create large walls in high profile areas.



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