

## CASE STUDY

### *Anchor Wall Systems: Providing an Anchor for Large Retail Tenants in the U.S.A.*

When a super store comes to town, it's very likely to be accompanied by one or more retaining walls. The combination is simply smart business. With the high price of commercial property, retail developers are focused on maximizing retail and parking space. Assuming slopes are part of the landscape (and they almost always are), well-placed walls can support soils along cut banks and fill areas. Less land waste, more selling space. Where municipalities require drainage ponds on the property, retaining walls provide added flexibility. As the following projects illustrate, Anchor Wall Systems retaining walls are the perfect complement to large-scale commercial developments with retaining wall needs.

#### RIGHT ON TARGET

Visit Hastings in Southern Minnesota and you're struck by the pleasant rise and fall of the land around you. It's a hilly country, making for beautiful views — and a few development headaches. A piece of property recently developed for a large shopping area was no exception.

The first major tenant for the property was discount retailer Target. The project engineers had to contend with significant grade changes — a cross slope of about 45 feet (13.7m) — from one end of the lot to the other.



**The flexibility of segmental retaining walls enabled the engineers to create an attractive solution to extreme grade changes at the Target site.**

The development plans would require several retaining walls to support a parking lot. An access road had to be carved out of the landscape and rimmed by walls as well. When it came time to choose the type of walls, the pre-cast variety was easily ruled out due to site constraints. The flexibility of segmental retaining walls offered a huge benefit to the engineers, easily accommodating grade changes throughout the project. Wayne Sicora, Project Engineer for RLK Kuusisto Ltd., explains, "We needed to retain soil in some tight areas, where grade changes across the lot resulted in height variations. Segmental retaining walls simply offered the best solution." The developers also preferred the aesthetic value of the natural-looking walls as opposed to a formed concrete alternative.

The attractive new Target store is flanked on one side by a two-tiered Anchor Diamond Pro™ wall, which rises up to 14 feet (4.3m) in one corner to support the

parking lot. In addition, Anchor Wall Systems retaining walls were built on either side of the access road. The blocks were color matched to the building for a complementary effect. As a finishing touch, the walls were topped with a black vinyl chainlink fence. A handsome cast-iron entrance was customized for the retailer. Says Sicora, "The client wanted to create a first-class retail environment. The Anchor walls helped us achieve the look we were aiming for. Everyone involved is pleased with the outcome."

#### SMART WALLS FOR WAL-MART

Sloping land and organic soil with a nasty tendency to settle were the chief concerns at the site slated for the devel-



**Several sections of wall surrounding the Wal-Mart parking lot were tapered to meet the changing grade of the surrounding soil.**

opment of a Wal-Mart store in Eden Prairie, Minnesota. These challenges were compounded by the relatively small parcel of land available to host the proposed 120,000 square-foot (11.1m<sup>2</sup>) store and adjoining 960-space parking lot.

Significant amounts of soil would have to be moved to bring the street level with the property. In addition, a hill rising behind the building would need to be cut away to make room for a service road.

The landscaping design utilized Anchor Wall Systems segmental retaining walls using the Anchor Diamond® product to solve the land use issues. A wall rising approximately nine feet (2.7m) was erected around the property creating a more gradual grade as cars enter the parking lot. The structure also serves to support a gentle slope leading into a water-holding pond (required by the city). Several more Anchor walls were installed to support the service road cutaway.

Says Phillip Baum, project executive for the developer, Stahl Construction, "This was a unique project due to its sheer size. Now that we're seven years out, we can see the results. The project has held up." He adds, "This was one of the first Anchor Wall Systems retaining walls installed in a commercial setting within the city of Eden Prairie. The number of Anchor Wall Systems walls that have gone up in this area since then is a testament to the success of Wal-Mart's walls."

#### CREATING A HOME FOR THE HOME DEPOT

You'll find another successful marriage of Anchor Wall Systems and a retail development at The Home Depot store in Crystal Lake, Illinois. Located 30 miles (48.2km) outside of Chicago, the undeveloped property presented similar issues as the projects described above.



**This 17-foot-high (5.2m) segmental retaining wall constructed of Anchor Diamond® units supports one corner of the parking lot and encloses a retention pond on the other side of The Home Depot.**

To address grade changes at the site, the plans proposed several retaining walls. A 17-foot-high (5.2m) segmental retaining wall constructed of Anchor Diamond® units was installed to support one corner of the parking lot, next to a retention pond. Another Anchor Wall Systems wall was installed behind the store, to make way for a service road leading to the store's delivery docks.

According to installation manager Jaime Wallace, ILT Landscape Construction, Anchor Wall Systems retaining walls were a natural choice. "The cost savings they offered over concrete walls was the determining factor." He also notes, "the developer appreciated the fact that an Anchor Wall Systems retaining wall has natural textures, which look much nicer than a slab of concrete." By all appearances, the local citizens, visiting shoppers, and retail neighbors wholeheartedly agree. 

