Water Applications

SINGLE-PIECE SYSTEM INSTALLATION INSTRUCTIONS

With correct design and construction, Anchor™ products can be successfully installed at the edge of water channels, river banks and drainage ditches.

The final design of the wall is affected by various factors, including the movement and velocity of the adjacent water, erosion and scour, the direction of water travel to the wall, the risk of flooding, as well as the soil and ground conditions where the wall is being built.

A qualified engineer should always be consulted to determine the effect of water on the wall and to design a wall that takes all these factors into account.

Consult a qualified engineer before design, construction and installation take place, and follow the engineer’s design.

BASE COURSE
Place a filter fabric with extra length in front of the wall.

Install the leveling pad and the first course of block, including drainpipe and drainage aggregate. Wrap the extended filter fabric up along the face of the base course. Place soil fill in front of the wall and compact. Install another section of filter fabric in front of the wall to protect against erosion. Cover the fabric with a minimum of 3 inches of sand. Install larger stones, such as riprap, to hold it in place.

NEXT COURSE
Continue constructing the wall. Drainage is vital. To prevent clogging of the drainage aggregate and drainpipe by fine-grained soils, a geosynthetic filter fabric is installed to separate the drainage aggregate from the reinforced soils.

ADDITIONAL COURSES
Continue these steps until the wall is complete. The last section of filter fabric should cover the drainage aggregate and run up against the back of the top course of block. Add fill soil and compact.

Keep in mind there are numerous issues related to water wall applications, including wave or ice impact, erosion or scour in front of the wall and ice uplift of the wall that must be considered in the use of water applications of segmental retaining walls.

For more information, consult with a qualified engineer.