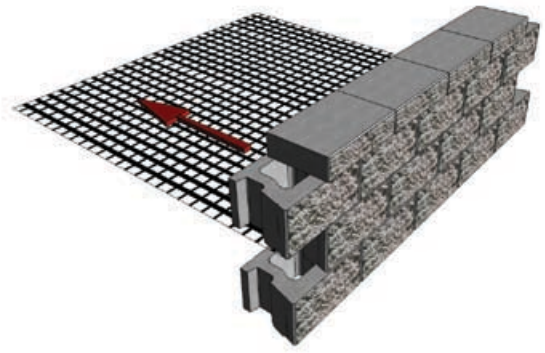
FROGSTONE™

Geogrid Wall

Where gridlock is a good thing…

Creating a FrogStone™ reinforced wall system, involves the use of geogrids for reinforcement. FrogStone™ walls 4.0ft (1.2m) and taller will automatically have active pressures because of their height. Walls smaller than 4.0ft (1.2m) may also require geogrid reinforcement depending on other related factors. Parking lots, roadways, or positive slopes above walls for example, require the use of reinforcement to help resist the increased pressure behind the wall. Geogrid used with the appropriate lengths, layers, and compacted backfill materials will resist these active forces above and behind the wall.



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> > > STEP 1
PLANNING

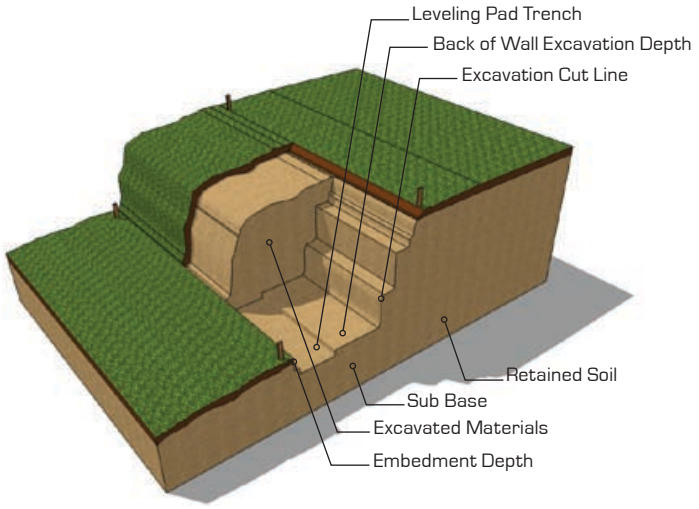
· Excavate and prepare **Sub Base Leveling Trench** 6" below first course

· **Leveling Pad Trench** is approximately 2.5' to 3' wide

· Normal wall **Burial Depth** or **Embedment Depth** is 6" to 12" or one block (for more information refer to design manual)

· Excavate cut line to a 2 to 1 slope or greater

· Back of wall excavation depth into the bank at the base of the wall should be from the face of wall to the designed length of **Geogrid**



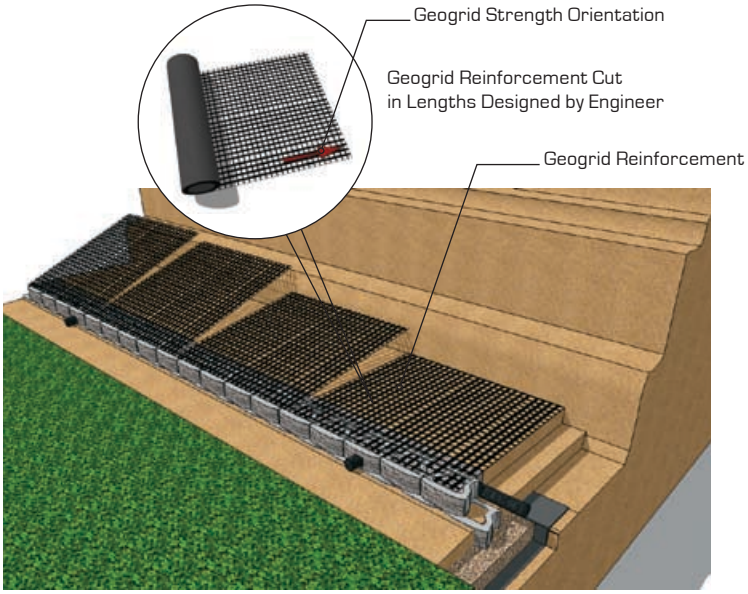
> > > STEP 2
CUT GEOGRID

· Cut **Geogrid Reinforcement** to the length specified in the design

· Geogrids are manufactured in two directions Uni-axial or Bi-axial. Uni-axial grid has one direction of strength and that direction has to be oriented perpendicularly to the face of the wall during installation. Bi-axial grid can be laid in two directions, perpendicular and lengthwise to the face of wall (ensure that the lengthwise direction is still in accordance to the length specified by the Engineer's design)

· **Correct geogrid orientation, strength and length is crucial to the success of the wall project**

· Each geogrid length should be laid parallel and adjacent to each other but never overlapping



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> > > STEP 3
LAY GEOGRID

· Place the geogrid as far forward on the **FrogStone™** units as possible without revealing it on the face

· Place the next course of **FrogStone™** units on top of the lower units and geogrid at a half bond

· The two **SecureLugs** will fit securely into the hollow cores of the two units below and lock the geogrid into the gravel core

· Pull the unit forward to engage and align the **SecureLugs**

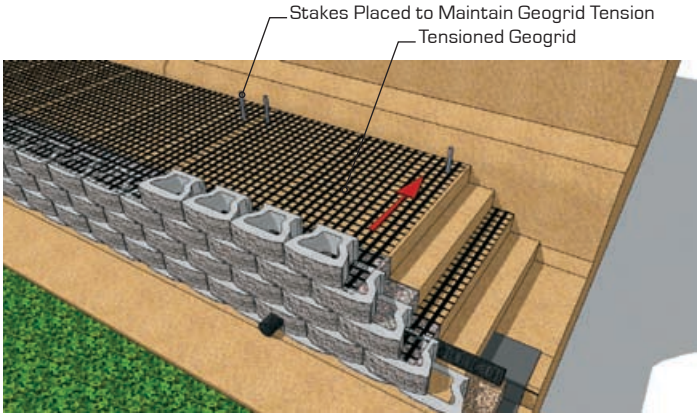
· Complete the installation of units on the **Geogrid Reinforced** courses

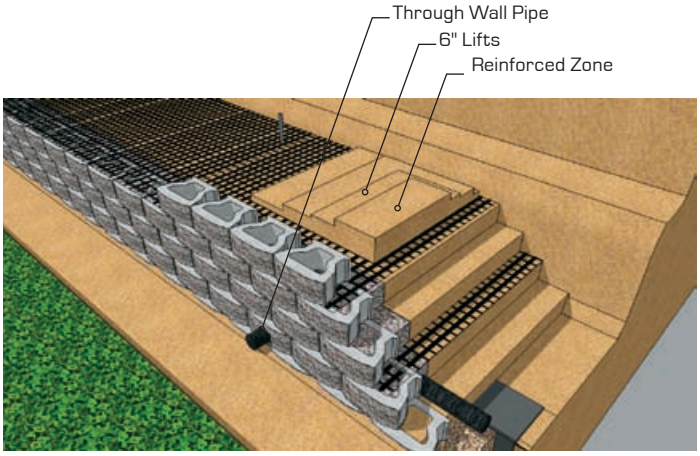
· Make sure each unit is installed against the next unit leaving no gaps between unit joints

· Tension the geogrid in such a way as **NOT** to disturb the alignment of the upper units

· Use stakes or backfill materials to maintain the tension during backfilling

· Do not drive equipment directly on top of geogrid



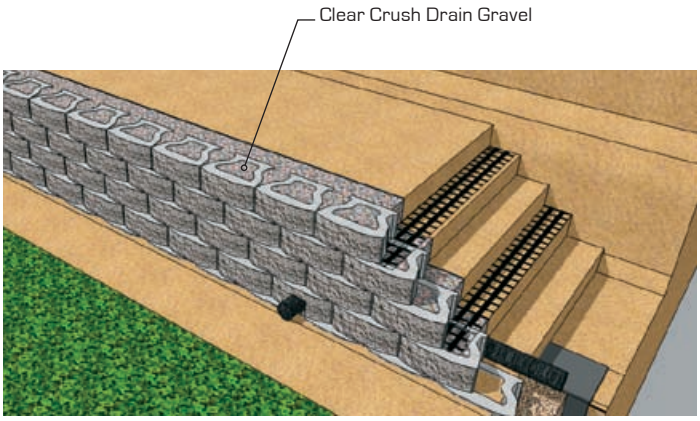


> > > STEP 4
REINFORCED BACKFILL

· **Backfill** and **Compact** the **Reinforced Zone** by placing materials from the back of the wall towards the end of the geogrid

· Install drainage gravel in the cores and 6" to 12" behind the units after placing and compacting backfill materials

· Install and compact backfill materials in 6" **Lifts** until wall is complete



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