

GEOPIER®

GEOCONCRETE® COLUMNS SYSTEM

Rigid Inclusion Technology



GeoConcrete® Columns (GCCs) the most recent addition to Geopier's rigid inclusion arsenal. They are unique in that they are not constructed in lifts like our RAP systems. Instead, they consist of a concrete base "bulb" overlain by an extruded column of concrete. One of the most interesting aspects of GCCs is that the concrete is placed in an airtight (or closed) system. This allows for a higher degree of quality control during installation as changes in pressure directly correlates to how much concrete is placed during each phase of construction.

APPLICABLE SOIL TYPES

- Organic soils
- Soft clays and silts

DESIGN CONSIDERATIONS

- Can be used for most Geopier applications
- Can be installed to depths of 40+ feet
- Ideal for organic soils, heavy loads, or adjacent structures
- Ideal for typical settlement tolerances (1 inch total; ½ inch differential)
- Foundations can be designed as conventional spread footings with bearing pressures up to 10+ ksf
- Slabs can typically be constructed as conventional slab-on-grade
- Requires a gravel pad or load transfer platform

CONSTRUCTION CONSIDERATIONS

- No spoils/haul-off – ideal for environmentally impacted sites
- Often results in 20% to 50% cost savings compared to traditional alternatives (removal and replacement or deep foundations)
- Rapid installation process means shorter construction schedules

INSTALLATION PROCESS

Geopier's GCCs are installed as follows.

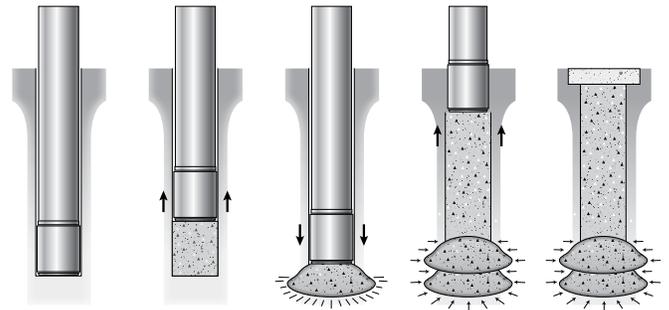
Step 1: Advance the displacement mandrel through unsuitable soils to the desired design depth.

Step 2: Withdraw the mandrel several feet to allow concrete to flow into the annular space.

Step 3: Redrive the mandrel to densify the recently placed concrete and surrounding soils.

Step 4: Repeat steps 2 and 3 several times to create a concrete base bulb.

Step 5: Withdraw the mandrel slowly to create an extruded column of concrete overlying the base bulb.



**The pump and mandrel must be calibrated to ensure concrete is continuously placed during construction.*



Watch system installation videos at
www.geopier.com

Whether you are an engineer, contractor, or owner - We can help.

For more information on Geopier solutions, call **800-371-7470**, visit www.geopier.com
or email info@geopier.com

