

Atlanta Homebuilder Home

Brookhaven, Georgia



When this Atlanta-area homebuilder was ready to build a home for his own family, he went with geothermal. Having installed 15+ systems around the Atlanta area along with experiencing the comfort and savings first-hand in his previous home, it was an easy decision for his family to go with GeoComfort. Energy efficiency was a top priority for them in their new home,

and they included many high-performance features in the construction. A large part of the efficiency of their geothermal system is attributable to the in ground heat exchanger, the Rygan HPGX loop; its patented, thin wall pipe, concentric design makes it extremely efficient, and it works well in the complicated soil conditions in Atlanta. Patsios Homes was the builder.

Project Details

Building Size:	3,480 sq. ft.
Geothermal Equipment:	3-ton GeoComfort Navigator Series Multi-Positional Vertical Packaged system; 3-ton GeoComfort Split system with matching GeoComfort Multi-Position DX Air Handler
Loop Type:	Vertical loop (HPGX)
Installation Date:	March 2015

 CONSTRUCTION TYPE
New Construction

 SYSTEM TYPE
Forced Air System

 LOOP TYPE
Vertical Loop

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Project Details *(continued)*

Installation Details:

The home consists of three floors. The main floor is serviced solely by the packaged unit and the upper two floors are serviced by the split system using a Honeywell zone board. The home also incorporates Ecobee thermostats for further monitoring and control. Both geothermal units utilize the same individual loop through a simple manifold and pump-sharing module. The loops are from Rygan HPGX. Because of the design of the pipe and much larger burst rating, Rygan loops can be installed to a much greater depth than traditional HDPE u-bend loop pipe. This allows the contractor to bore up to 600' for a single loop. The homeowners had a challenging lot due to a stream buffer and were able to use a single bore of approximately 470' to service the geothermal equipment.

Other Features:

The home features 2x6 exterior walls for added insulation, open cell spray foam at the entire roof line, a galvalume standing seam roof over garage to reflect as much heat as possible on the western side of house, and a tankless water heater centrally located so that it is no more than 20' from any of the water fixtures.

Geothermal Contractor: Innovative Comfort Solutions, Marietta, GA • (404) 953-5538



Top Left: View showing the back of the home.



Bottom Left: Exterior view during the final phase of construction.



Right: The vertical wells were drilled at the back corner of the home.