

SPOTLIGHT

WaterFurnace International, Inc.

Case Study 27

Ocean front condominiums showcase GeoExchange

Key Features

Square Footage: Approx. 900 Per Single Condo & 1,600 Per Penthouse Unit

Type of System: Closed Vertical Loop

Number of Units: 107 Units in 104 Condominiums

Total Capacity (HVAC Tons): 222



A beach front condominium

Ocean City, Maryland, is home to Antigua Condominiums, a beach front community on the magnificent Atlantic Ocean, and the first all GeoExchange condo complex of its size on the East Coast. The 14 story building houses 104 individually owned condo units—each conditioned with WaterFurnace comfort systems.

In 1995, condo association members sought to replace the existing systems consisting of electric resistance heat and a water tower with a more efficient, aesthetically pleasing and environmentally friendly system.

On recommendation from A&A Air Services, Inc., the largest WaterFurnace dealer in Delaware, the association then voted in favor of a closed vertical loop system.

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By using the constant, renewable energy found beneath the Earth's surface, GeoExchange (also known as geothermal) technology is not only environmentally friendly, but cost effective.

GeoExchange systems boast no flame, no flue, no odors, and no danger of fire or fumes, making them the safest systems on the market today. By using a network of pipes in the ground, called Earth loops, these systems transfer rather than create energy. For every unit of electricity used, GeoExchange systems generate four to five units of energy which means lower operating costs.

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*—Dennis Grove,
WaterFurnace Territory Manager*

GeoExchange can use either open or closed loop systems. Open loops use ground water as a direct energy source when good quality well water is available at a reasonable pumping depth. Closed loops, on the other hand, are sealed and filled with a water/antifreeze solution and use the ground as a heat source or heat sink. Closed loops can be installed

horizontally in trenches, vertically in bore holes or submerged in a pond or lake.

The system of choice

Antigua showcases 107 WaterFurnace Premier™2 units and includes IntelliZone™ comfort zoning systems in the penthouses on the 13th and 14th floors. The vertical loop system, installed under the parking lot, consists of 160 bore holes, each 175 feet deep with a total of over 10 miles of pipe.

The Premier2 provides ultra-quiet, high efficiency comfort for heating and cooling. It is even endorsed by the U.S. Environmental Protection Agency as an Energy Star™ product due to its high operating efficiencies and environmentally friendly features.

Designed to work with a GeoExchange heating and cooling system, the IntelliZone is a four zone comfort system which allows homeowners to precisely control the comfort level of every room in the home—helping to reduce energy bills.

A&A Air Services, Inc., designed and installed the systems. “The units practically sell themselves,” said Madden. “This has been a big feather in our cap. We've sold quite a few systems since the Antigua project. The success of this installation in an environmentally aware area has caused many others to consider GeoExchange and we are very busy installing those systems.”

Owners now enjoy three times the comfort with less maintenance and greater efficiencies... The environmentally friendly systems offer versatility, year-round comfort and are perfect for the shore area.

A “shore” thing

“GeoExchange was the best solution in this case. Outside units typically don't last longer than five years in the salt air and window units are unsightly, expensive to operate and noisy,” said Dennis Grove, WaterFurnace Territory Manager. “Many of these condo units are rented out during the tourist season. The GeoExchange systems have extended the rental season with lower operating costs. And with the lower operating cost for heat, many of the owners have extended their stay at the shore.”

Owners now enjoy three times the comfort with less maintenance and greater efficiencies. The WaterFurnace units blend in well with their ocean side surroundings. The environmentally friendly systems offer versatility, year-round comfort and are perfect for the shore area. With no noisy, outside units, residents can now hear the waves gently crashing on the shore outside their condos.

