Geo Building

Fact Sheet



The Atlantic County Utilities Authority's (ACUA) administrative office building or Geo Building was designed by Garrison Architects and built in 1993.

The building's mechanical system is based on a ground source heat pump system that uses ground heat transfer supplied through vertical wells to provide energy for heating and cooling. This warm/cool water is piped throughout the building and its energy is upgraded to useful temperatures via 23 heat pumps. On average, geothermal buildings are 33 percent more efficient than traditional heating and cooling systems.



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Some of the enhancements at the Geo Building include:

- Re-commissioning of the building to verify that system components were installed and functioning properly.
- Development of a Building Operations Plan to ensure that proper maintenance schedules are maintained.
- Installation of three Falcon waterless urinals in rest rooms.
- Installation of low-flow aerators on faucets and fixtures.
- Reduction of energy use through upgrades in computer servers.
- A water filtration system that replaced bottled water in employee break areas.
- Elimination of excess spotlights on the building's exterior.
- Buying recycled products whenever feasible and banning the use of Styrofoam products in the building.



The use of "Green Seal Approved" paper products.

- The Geo Building and Environmental Park are powered by an on-site Landfill Gas to Energy facility.
- Installation of a recycled plastic lumber deck.
- Use of skylights to reduce reliance on artificial light.
- Furniture and benches around the building are also made of recycled plastic lumber.
- Creation of a community garden to the east of the building, above the geothermal HVAC system's wells. There is also an xeriscape garden in this area with composters for food and yard waste.



Low-flow faucet aerators

- Food waste is composted for use in the community garden.
- Installation of rain and moisture sensors to reduce the amount of water used for irrigation.
- Installation of recycled carpet tiles throughout the building.
- Energy Star rated copiers/printers/scanners with duplexing capabilities.
- Energy Star rated dishwasher.
- Energy Star vending machines with occupancy sensors to turn off the machine's lights and slightly raise the temperature when the area is not occupied.
- Exit signs have been retrofitted with LED fixtures that use 90 percent less electric and have a life span of more than 25 years.
- Geothermal HVAC system saves an estimated 90 barrels of crude oil per year.



Benches made from recycled lumber

