



# Piez Hall Extension Oswego, NY

Senior Thesis Building Abstract

Cannon Design

## Mechanical

- Geothermal heat pump of capacity of 800 tons and 240 wells
- Two 54,000CFM and Two 60,000CFM Air handling units
- Five exhaust fans up to 20,000CFM
- Four shell and tube heat exchanger

## Sustainability

- Achieved LEED Gold Certification
- Efficient water fixtures
- Recycled building material
- Energy efficient curtain wall system
- Photovoltaic array skylights
- Wind turbine

## Structural

- Shear Walls and diagonal bracing are the main lateral force resisting systems.
- Foundation system are supported by shallow spread footings.
- Conservatory and planetarium consists of steel framing system.
- Typical framing system consists of concrete flat plate, one way and two way slabs with drop panels in most column locations.

## Building Statistics

- Size: 210,000 sq. feet
- Stories: 6 (including roof)
  - Cost: \$110 million
- Delivery methods: Single Prime Contract
- Construction dates: To be completed by April 2013

## Lighting/Electrical

Mostly fluorescent T8 and T5HO  
Exterior consist of Metal Halide Lamps  
Building Utilization Voltage: 120-277VAC

## Architecture

The building has many interesting architectural features such as asymmetric shapes and cantilevers. Its exterior curtain walls façade gives off a feeling of sublime yet fragile illusion. The masonry brick wall on the other side of the façade gives off a sense of bulkiness which keeps the glass façade in harmony.

