

# Water Bottling Facility

Mid-Atlantic  
United States



## Project Information

Owner/Occupant	Water Bottling Company
Architect & Engineer	Haskell Architects/Engineers
Mechanical Contractor	HT Lyons & JS Thomas
Electrical Contractor	Westside Hammer
Occupancy Type	Office/Factory/Warehouse
Gross Building Area	517,000 ft <sup>2</sup>
Number of Stories	2 in parts storage, else 1
Total Cost	\$132,000,000
Dates of Construction	August 2006 – March 2007
Delivery Method	Design-Build

## Mechanical Systems

The mechanical system of is made up of:

- 6 roof top units, 1 of which is equipped with a humidifier for the QC lab
- 17 VAV boxed that regulate the Office and QC Lab
- 8 make-up air-handling units ensure enough air is being circulated within the warehouse and packaging areas
- 9 unit heaters, 4 gas and 5 electric
- 2 Gravity hoods in the Chiller Room
- 36 Exhaust Fans and 16 Supply Fans regulate air in all spaces except the office

## Electrical/Lighting Systems

- The power service enters the building through a 12.47 kVA switchgear. It then moves through 5 12.47kVA-480/277V transformers. The power is then distributed through 4 480V switchboards and 1 4160V switchboard
- Lights are required to produce 50 foot-candles in the production area and 35 in the warehouse
- Both the office and warehouse use occupancy sensors
- Site lighting control is based on time clocks

## Structural Systems

Foundation

- Varying thicknesses of concrete slab from 4" to 10"

Structure

- 50' x 50' bays throughout warehouse and packaging
- Metal floor deck 1 ½" – 22 GA. Galvanized Composite
- High strength structural steel

Roof

- Metal roof deck 1 ½" deep, wide rib, galvanized - 22 GA

## Architectural Features

- Entryway features clerestories and blue metal roof
- LEED Gold Achieved setting new minimum for future construction

Mechanical Option | Fall 2012  
Advised by Dr. William Bahnfleth

# Justyne Neborak