

# MOUNT HOLYOKE

## New Residence Hall

2008

- 72,000 SF—176 beds
- Occupancy, Fall '08
- **LEED™ Silver Certification Candidate**



The New Residence Hall has been designed to be an attractive, functional, and efficient residential building. It has been constructed in conformance with the LEED™ (Leadership in Energy and Environmental Design) rating system to create a high performing green building. Energy efficient systems incorporated into this building include Solar Hot Water panels, Energy Recovery Ventilators, Radiant Heat, and low E Glass. Additionally, the building has a high recycled material content, many components were manufactured locally, and was built using low impact construction methods.

### Materials + Resources

Large goal to divert 95% of the construction waste to a local building recycling company for salvage and reuse.

20% of the building materials locally manufactured, within 100 miles of campus.

Plan office to rapidly minimize resource depletion.

Recycled content will be utilized wherever possible. Examples include 40% Post-consumer materials, Aluminum window frames made from 50% Post-consumer materials, Insulating glass made from 25% recycled material and steel Post-consumer.

### Indoor Environment

Building finishes utilize materials with low emitting 'Volatile Organic Compounds' in carpet, paint, sealants and adhesives, also composite wood products are low emitting and free of added ureaformaldehyde resins.

All regularly occupied spaces have direct access to daylight and views.

Conduct building flush-out after construction ends and prior to occupancy to ensure indoor air quality meets EPA environmental requirements.

### Innovation + Design

Realtime monitoring and display of electrical energy consumption of each residential cluster.

Solar Thermal Roof Panel Collectors provide 22% of domestic hot water.

Utilizing Renewable Energy (total building electrical load, Greenhouse gas reduction equals 404 tons/year equal to planting 110 acres of trees or taking 70 cars off the road).

Incorporate Heat Recovery Wheel to Conserve and reduce energy loads on the campus central heating and cooling system.

### Sustainable Sites

Create a natural landscape with usable open space and views to Stony Brook.

The storm water management design minimizes storm water runoff and utilizes on site retention system to limit flow volume to the brook.

Remove invasive plants along the brook and plant native vegetation.

The orientation of the building wings maximizes opportunities for natural light, views and ventilation.

Provide area within the building for securing bicycles for 15% of the residents.

Minimize light pollution.

Reduce site compaction due to construction activities that may inhibit new plant, grass and tree growth by loosening subgrade to a 12" depth and provide 8" of topsoil to establish a 20" soil medium layer.

### Water Efficiency

Select plumbing fixtures to maximize water efficiency using 30% less water than a traditional building.

Incorporate plants and grasses that are native to the Northeast and minimize water use.

Plant species examples: Green Mountain Sugar Maple, Autumn Brilliance Sugar Maple, Serviceberry, July Tree, Sorbus, Hummingbird, Virginia Sweetspire, Little Yucca, Korean Spice, Viburnum.

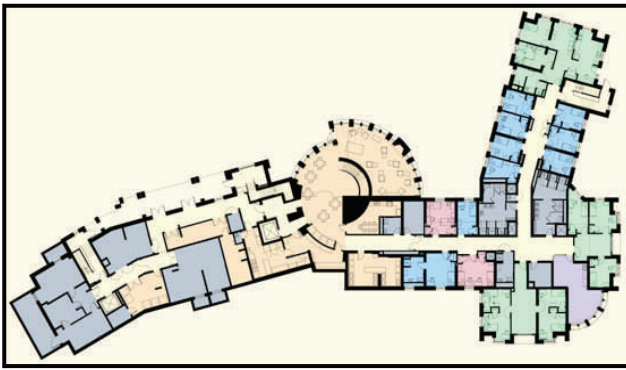
### Energy + Atmosphere

Building envelope and HVAC design optimizes energy performance 45% more efficient than traditional building standards resulting in building energy savings.

Reduced Green House Gas emissions by 19% tons/year. CO<sub>2</sub> equivalent to planting 53 acres of trees or removing 12 cars from the road.

Daylight dimming and occupancy sensors in building spaces to conserve electricity and reduce heat loads.

New facility is continuously monitored by Building Management Control Systems to maximize building systems efficiency.

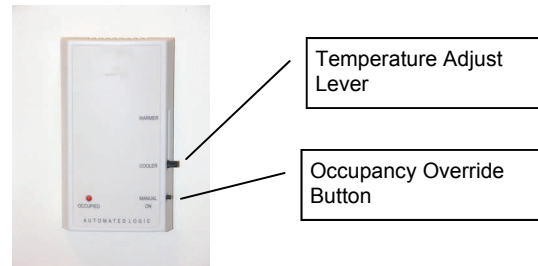


## GREEN FEATURES

- **LEED™ Silver Certification Candidate**
- **Energy** efficiency – building uses 45% less energy than allowed by current Massachusetts building code
- **Solar hot water** system
- **Green Power** – project has purchased 2 years of electrical power generated from renewable sources (wind, solar)
- **Water** efficiency – building uses 30% less water than allowed by code
- Synthetic roof slate shingles made from high recycled content materials
- **LEED™** Points also earned for: Storm water management, light pollution reduction, reduced site disturbance, no HCFC's (Ozone Depletion); high recycled content in new building materials
- 20% materials manufactured locally
- 93% construction waste recycled
- Energy efficient lighting
- CO<sub>2</sub> monitoring
- Low VOC 'Volatile Organic Compounds'
- **"Green Touch Screen"** Interactive energy monitoring
- Renewable building materials include:
  - Bamboo floor
  - Cork flooring

## ENERGY SAVING TIPS

- Each Student Room has it's own thermostat, allowing individual control for comfort within pre-set limits. You can adjust your temperature setting by using the Temperature Adjust Lever and gain up to an hour of "Occupancy" by pressing the Override Button (both shown below).



- Avoid placing heat producing devices (such as a lamp) in the immediate vicinity of this thermostat as this will adversely affect temperature control in your space.
- Lighting in corridors, common spaces, and bathrooms is automatically controlled and will dim during late night and unoccupied hours, but the lighting in your room is controlled by you. Turn **OFF** your lights whenever you leave your room. Even short OFF periods save more energy than leaving lights ON.



Occupancy Sensor in bathroom

- While the windows are fully operable and can be opened to enjoy nice weather opportunities, during the heating and cooling seasons be certain that windows are shut tightly. If your windows will not shut properly call **Facilities Management at x2012** to report the problem. We will fix them. Drawing the window blind will help reduce heat losses and cooling loads for your room.



- Recycling bins are located in each cluster and on the Ground Floor in the Continental Breakfast area.

