

ECHO: Leahy Center for Lake Champlain



LEED Certified

Facts

- ◆ ECHO: Ecology, Culture, History, Opportunity
- ◆ 2 story lake aquarium & science center
- ◆ Location: downtown Burlington, VT
- ◆ 30,000 sq. ft.
- ◆ New construction, completed May 2003
- ◆ October 2003: LEED



Sustainable Site

- ◆ 5/14 points
- ◆ Fulfilled prerequisite: erosion and sedimentation control
- ◆ 4 credits: alternative transportation
- ◆ 1 credit: reduction in light pollution
- ◆ Brownfield site



Water Efficiency

- ◆ 4/5 points
- ◆ 2 credits: water reduction
- ◆ Waterless urinals
- ◆ Low-flow toilets
- ◆ Building management and employee training



U.S. Green Building Council. Awards, 2008.

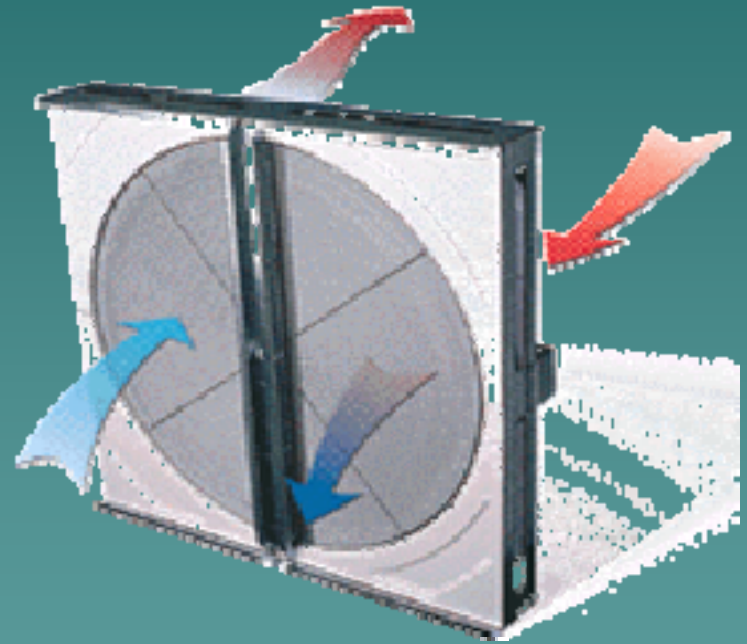
echo Leahy Center for Lake Champlain. E2 Quest

U.S. Green Building Council. Site Description, 2008.

http://www.gizmag.com/pictures/hero/7273_16050735324.jpg

Energy & Atmosphere

- ◆ 5/17 points
- ◆ 3 prerequisites
- ◆ 4 points: optimizing energy performance
- ◆ Walls, roof, floor insulated
- ◆ Air tight
- ◆ Energy recovery wheel
- ◆ LED lights
- ◆ Motion sensor lights



Materials & Resources

- ◆ 4/13 points
- ◆ Requirement: recycling
- ◆ 2 credits: construction waste management diversion
- ◆ 1 credit: local materials
- ◆ 1 credit: certified wood



Indoor Environmental Quality

- ◆ 10/15 points
- ◆ Met 2 prerequisites
- ◆ IAQ construction management plan
- ◆ Low emitting materials
- ◆ Indoor chemicals and pollutants
 - Carbon dioxide monitors
- ◆ Credit: 90% building daylight views



Innovation and Design

- ◆ 1/5 points
- ◆ Involving LEED Accredited Professional in design process



Community Involvement

- ◆ Classroom environment
- ◆ Partnership with LakeNet
- ◆ Partnership with The Vermont Department of Employment



Room for Improvement

- ◆ Sustainable sites: storm water
- ◆ Water efficiency: increase water reduction
- ◆ Energy & Atmosphere: animal survival
- ◆ Materials & Resources: increase local building materials and certified wood
- ◆ Indoor Environmental Quality: zero VOC
- ◆ Innovation & Design: Food composting, vertical landscaping



References

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- ◆ 3. U.S. Green Building Council. Awards, 2008. <http://www.leedcasestudies.usgbc.org/ratings.cfm?ProjectID=238>. Accessed on October 22, 2008.
- ◆ 4. U.S. Green Building Council. Energy, 2008. <http://leedcasestudies.usgbc.org/energy.cfm?ProjectID=238>. Accessed on October 22, 2008.
- ◆ 5. U.S. Green Building Council. Indoor Environment, 2008. <http://leedcasestudies.usgbc.org/indoorenv.cfm?ProjectID=238>. Accessed on October 22, 2008.
- ◆ 6. U.S. Green Building Council, 2008. Innovation in Design Credit Catalog.
- ◆ 7. U.S. Green Building Council. Land Use & Community, 2008. <http://leedcasestudies.usgbc.org/landuse.cfm?ProjectID=238>. Accessed on October 22, 2008.
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- ◆ 10. U.S. Green Building Council. Overview, 2008. <http://leedcasestudies.usgbc.org/overfiew.cfm?ProjectID=238>. Accessed on October 8, 2008.
- ◆ 11. U.S. Green Building Council. Site Description, 2008. <http://leedcasestudies.usgbc.org/site.cfm?ProjectID=238>. Accessed on October 22, 2008.

- ◆ Pictures:

<http://compost.css.cornell.edu/images/food.gif>

<http://www.vtliving.com/attractions/echocenter/ECHOsciencecenter.jpg>

http://steuben.com/source_images/innovation-2_med.jpg

<http://www.perfectsense.org/prod-co2.htm>

<http://www.acfairbankconsulting.ca/images/vicwood/vicwoodsclogsm.jpg>

<http://www.c-sol-air.com/wheel.gif>

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[http://www.warboats.org/images/jpg/MitchellSpector/SpectorinVT\(2\).jpg](http://www.warboats.org/images/jpg/MitchellSpector/SpectorinVT(2).jpg)

<http://www.burlington-vermont.com/images/echo3.jpg>

<http://blogs.targetx.com/champlain/DavidTabaruka/echo%20center.jpg>