

A Better City

Sustainability Showcase

Facility Profile and Information Sheet

Facility: Genzyme Center Square Feet: 350,000

Address: 500 Kendall Square

City: Cambridge State: MA Zip: 02142

Contact Person: Rick Mattila Phone: 617-768-6946

Email: rick.mattila@genzyme.com

Building Uses: (check all that apply)

Commercial Residential Education (college/university) Retail Industrial Cultural (eg. museum)

Type of Development: New Construction New Addition to Existing Facility Remodel of Existing Facility

Developer: Lyme Properties

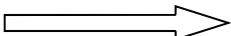
Architects: Stefan Behnisch, House & Roberson, Next Phase Studios

General Contractor: Turner Construction

Date of Occupancy: November 2003

Green Building Features: (check all that apply—please provide additional information on items)

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|---|---|
| <input checked="" type="checkbox"/> Commuter Transportation (Subsidies, shuttles, etc) | <input checked="" type="checkbox"/> Local Materials Incorporated into Design |
| <input checked="" type="checkbox"/> Construction Waste Management/Recycling | <input checked="" type="checkbox"/> Non-Toxic Materials and Furnishings |
| <input checked="" type="checkbox"/> Energy Efficiency | <input checked="" type="checkbox"/> Passive Solar - Orientation and Design |
| <input checked="" type="checkbox"/> Environmental Management Systems | <input checked="" type="checkbox"/> Rainwater Collection |
| <input checked="" type="checkbox"/> Food waste/composting | <input checked="" type="checkbox"/> Recycling, Re-Use, Waste Reduction |
| <input checked="" type="checkbox"/> Green Cleaning | <input checked="" type="checkbox"/> Renewable Energy |
| <input checked="" type="checkbox"/> Green Fleets | <input checked="" type="checkbox"/> Sustainability Audits |
| <input checked="" type="checkbox"/> Green Purchasing /Procurement | <input checked="" type="checkbox"/> Sustainability Reporting and Performance Measures |
| <input checked="" type="checkbox"/> Indoor Air Quality | <input checked="" type="checkbox"/> Sustainable Landscaping |
| <input checked="" type="checkbox"/> LEED Certification: Level <u>Platinum</u> | <input checked="" type="checkbox"/> Water Conservation |
| <input checked="" type="checkbox"/> Other: <u>Employee shuttles, PlanTran hybrid livery service</u> | |

Please complete the remainder of the form on the next page 



Sustainability Highlights: Please detail any interesting highlights, monetary savings, or other facts on the benefits received from your facility. (attach separate page if necessary)

In addition to what has been supplied, Genzyme conducted post-occupancy studies 5 months and 23 months after move-in. Results were compared to pre-occupancy design surveys. The employee population that responded to the surveys was similar in number and distribution (position and levels). The surveys indicated overwhelming positive response in the value of Genzyme Center in providing support to employees work, providing greatly improved indoor quality and basically a better place to work. In addition, response to several questions resulted in a net range of between 60-85% of employees said they were more productive in the Genzyme Center. This translates in to minimum annual value of about \$ 5 Million, considering average salary, benefits and other employee rated expenses.

Challenges Faced: Please briefly describe the challenges faced in incorporating green building and sustainability practices at your facility.

Media Received/Press Releases: Please attach any media received (articles, links to video news clips, etc) or in-house press releases promoting your facilities sustainability.

Please return to A Better City:
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Boston, MA 02109
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Media Received/Press Releases: Please attach any media received (articles, links to video news clips, etc) or in-house press releases promoting your facilities sustainability.

- Robert Campbell, Boston Globe Correspondent writes “... *from inside, this is the best and most delightful office building, bar none, this writer has seen in the Boston area.*”
- US EPA Wastewise Program Champion Award: Construction Waste Recycle(2003)
- US EPA Region I, Environmental Merit Award (2004)
- Build America Award - Association of General Contractors(2004)
- (Site Development) US EPA, Region I Brownfields Phoenix Award, Grand Prize Nat’l Brown-field Conference (2006)
- Television/Publications: NECN NE Business Day, WGBH (2004), WCVB Chronicle(2006), Pro-Files Magazine, Architectural Magazine,
- US Green Building Council - Platinum Rating
- Fortune: Best 100 Companies to work for (2005, 2006)
- AIA/COTE Top 10 Green Projects (2004)
- 2007 Award of Excellence: Business Week/Architectural Record
- Royal Institute of British Architects: Worldwide Award 2005

- Other Media
 - Venture Magazine: March/April 2008
 - Green Pioneer Award, AltWheels Festival, Boston 2007
 - NPR Science Friday, April 2007
 - Fast Company Magazine, May 2007
 - Deutsche Welle (German Radio), 2007



Genzyme Center and the LEED Credit System

The U.S. Green Building Council’s Leadership in Energy and Environmental Design (LEED) rating system is a voluntary, consensus-based national standard for developing high-performance, sustainable buildings. Based on well-founded scientific standards, LEED emphasizes state of the art strategies for sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality.

Buildings registered under the LEED system are awarded “credits” for reaching certain environmental goals, and are assigned a rating within the LEED system based on the following scale:

- Platinum:** 52-69 credits
- Gold:** 39-51 credits
- Silver:** 33-38 credits
- Certified:** 26-32 credits

Although its application has not yet been submitted to the Green Building Council, Genzyme anticipates earning approximately 52 credits to earn a “Platinum” rating, based on the following criteria:

Sustainable Site Selection

Environmental Goal	Explanation	Credits
Erosion and Sedimentation Control	Genzyme Center features a sophisticated stormwater pollution prevention plan.	Required
Site Selection	Genzyme Center is located more than 100 feet from a wetland, and above the 100-year flood elevation.	1
Urban Redevelopment	Genzyme Center is built in a high-density urban area.	1
Brownfield Redevelopment	Genzyme Center is built on a former industrial brownfield, which was remediated for this project.	1
Alternative Transportation – Public Transportation	Genzyme Center is located within ½ mile of an MBTA (subway) stop.	1
Alternative Transportation – Alternative Commuting	Genzyme Center features indoor bike storage and lockers/showers.	1
Alternative Transportation – Alternative Fuel Vehicles	The garage features alternative fuel recharging stations.	1
Alternative Transportation – Carpool space	The garage features forty preferred carpool spaces.	1

Reduced Site Disturbance	Open space surrounding Genzyme Center was restored with native/ adaptive plants.	1
Reduced Site Disturbance	Open space at the site exceeds city requirements by 50%.	1
Stormwater Management	Genzyme reduced stormwater runoff from the building by 25% with a vegetative “living” roof and rainwater collection system.	1
Stormwater Management	By installing filters, Genzyme reduced pollutant levels of runoff from the building to meet EPA standards.	1
Reduce Heat Island – Parking	All parking for Genzyme Center below ground level.	1
Reduce Heat Island - Roof	Genzyme Center’s roof surface is split between a vegetative roof and Energy Star-rated reflective surfaces.	1
Light Pollution Reduction	Subdued lighting meets light pollution standards.	1

Water Efficiency

Checklist	Explanation	Credits
Water Efficient Landscaping	Genzyme paid for and installed a highly efficient irrigation system throughout the broader development, including soil moisture sensors.	2
Water Use Reduction	Genzyme installed low flow fixtures throughout the building, including waterless urinals and dual-flush toilets. Genzyme Center is expected to use at least 32% less water than conventional buildings.	2

Energy & Atmosphere

Checklist	Explanation	Credits
Building Systems Commissioning	Genzyme contracted with an outside firm to conduct extensive commissioning of all building systems.	1
Measurement and Verification	Genzyme has a system in place to monitor and measure the building’s systems and verify their performance	1
Optimize Energy Performance	Genzyme Center’s energy costs are expected to be 38% less than those of a standard new building.	4
CFC Reduction	No CFCs are used in the building.	Required
HCFC Reduction	No HCFCs used are used in cooling the building. A unique steam absorption chiller captures steam from a nearby power plant and uses it to cool the building.	1

Green Power	Genzyme contracted with local power company to receive 100% of all power for the building from renewable sources.	1+
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Materials and Resources

Checklist	Explanation	Credits
Storage & Collection of Recyclables	More than 500 square feet in the building is devoted to the collection and storage of recyclables.	Required
Construction Waste Management	Greater than 90% of all construction waste was diverted from landfill for re-use.	2
Recycled Content	Greater than 75% of all materials contain recycled content.	2
Local Materials	Greater than 50% of all materials are assembled and greater than 20% of all materials were harvested from within 500 miles of the building site.	2
Certified Wood	More than half of all wood materials used were Forest Stewardship Council (FSC) certified to come from well-managed forests.	1

Indoor Environmental Quality

Checklist	Explanation	Credits
Meet minimum standards for indoor air quality	Genzyme Center meets all government standards for indoor air quality.	Required
Smoke Free Building	Company policy ensures that the building is smoke free.	Required
Carbon Dioxide Monitoring	Genzyme installed carbon dioxide monitors throughout the building, which allow adjustments in airflow to reduce any CO2 levels in the building.	1
Increase Ventilation Effectiveness	The HVAC system and controls systems are designed to achieve an air quality standard above government requirements.	1
Construction Air Quality Standards	An indoor air quality plan was implemented to maintain air quality during construction. Following completion, a two-week "flush out" period ensured the removal of residual toxins prior to move-in.	2
Low-Emitting Materials	All paint, sealants, carpets and composite woods meet standards for volatile organic carbon emissions.	4
Indoor Chemical & Pollutant Control Systems	All chemical storage in the building is isolated and vented. Permanent grating systems are used to keep entryways clean.	1

Controllability of Systems	Operable windows and lighting controls give employees individual control over their environment.	1
Thermal Comfort	Genzyme Center meets ASHRAE standards for providing thermal and humidity comfort to employees.	1
Thermal Monitoring	Permanent temperature and humidity monitoring systems in the building alert personnel to potential problems.	1
Daylight	An elaborate natural light enhancement system ensures that >75% of all workspaces have sufficient natural light to work without artificial lighting under normal conditions.	1
Views of Outdoors	100% of all regularly occupied spaces have views to the outdoors.	1

Innovation & Design Process

The LEED system awards up to four “innovation credits” for areas not specifically included in their credit system or for “exceptional performance” in a particular covered area. LEED also awards one credit for having a person on the project team who is a LEED 2.0 Accredited Professional. The following describes Genzyme Center’s potential credits in these areas:

Checklist	Explanation	Credits
LEED Accredited Individual	Rick Mattila, director of environmental affairs, is LEED accredited	1
Exceptional Performance, Recycle/Reuse Waste	Greater than 90% of all waste was reused or recycled.	1
Exceptional Performance, Recycled Content	Greater than 75% of all materials contain recycled content. Suppliers were required to submit materials with recycled content, and Genzyme consistently pursued this information from all suppliers.	1
Exceptional Performance, Green Power	100% of electricity for the building comes from green-certified sources.	1
Exceptional Performance, Commuting Enhancements	Genzyme provides a 60% subsidy for MBTA passes, a guaranteed ride home program for car pool commuters, and is implementing an employee shuttle program between multiple Genzyme locations.	1

Total Approximate Credits (All Areas): 52