

Sustainable Building Design Policy

Unanimously approved by the Belmont Board of Selectmen March 5, 2007

From “A Working Vision for Belmont’s Future:”

“We, the Belmont community, make a commitment to... develop and use our human and financial resources wisely... We will be an environmentally responsible community and conserve our natural habitats.”

Purpose

In support of Belmont’s Working Vision, we seek to make the best possible use of all of our resources (both natural and manmade) in a way that realizes the full potential of cost savings and environmental benefits while still being fiscally responsible. Toward these goals, the Town of Belmont supports a sustainable design policy that promotes practices that protect human health and wellbeing, and the natural environment.

The Town of Belmont, both as a matter of principle and as a cost-saving measure, supports efforts that will achieve the following benefits of sustainable design as applied to new construction and major renovation of all municipal and school district buildings, to the extent practical:

- **Economic benefits** that reduce operating costs; enhance asset value; improve employee productivity and satisfaction; and optimize life-cycle economic performance
- **Environmental benefits** that enhance and protect ecosystems and biodiversity; improve air and water quality; reduce solid waste; and conserve natural resources
- **Health and community benefits** that improve air, thermal, and acoustic environments; enhance occupant comfort and health; minimize strain on local infrastructure; and contribute to overall quality of life

These benefits can be achieved by many design and construction initiatives, including but not limited to:

Site planning and design

- Involving contractors, engineers, and other relevant parties in early planning discussions to ensure building systems (e.g., HVAC, electrical) are sited and sized properly in building design
- Planning building design to minimize impact on natural ecosystems (e.g., wildlife habitats, wetlands, forests) or municipal resources (e.g., water supply, sanitary sewer system, storm water drainage, electric load)
- Designing landscaping to use native species and conserve water
- Designing to encourage pedestrian and bicycle access, and access and amenities to encourage use of public transit where possible

Resource-efficient elements

- Using construction materials that are fully or partially comprised of recycled content, and/or are recyclable at the end of their useful lifetime
- Using nontoxic materials for building envelope and interior (e.g., fiberboard, paint, adhesives, carpeting, and other materials that contain low levels of volatile organic compounds (VOCs))
- Implementing natural lighting and ventilation systems (e.g., daylighting, fresh air circulation)
- Using equipment and appliances that maximize operating efficiency (e.g., occupancy sensors, low-flow water fixtures, Energy Star-rated HVAC systems)
- Incorporating alternative energy into building systems (e.g., solar hot water, solar panels, geothermal heat pumps, wind turbines, biodiesel backup generators)

Construction

- Using diesel construction equipment that has been retrofitted with pollution controls to minimize exposure to harmful exhaust contaminants
- Recycling waste materials from building construction (or demolition)

Post-construction

- Commissioning engineering systems to ensure specifications have been met
- Proper operation of the buildings once occupied (i.e., training employees on using and maintaining fixtures and equipment) to ensure maximum resource-saving potential

Application

1. The Town of Belmont should incorporate sustainable building principles such as Leadership in Energy and Environmental Design (LEED), as promulgated by the U.S. Green Building Council, or other acceptable standards into the design and construction and operation of all municipal and school district buildings, to the level that is economically practical.
2. Designers selected for all capital projects should be qualified to design buildings and implement elements that are sustainable and efficient. The design team should include LEED-accredited or comparable professionals.
3. The project team should meet early in the design stage to realize optimal cost savings and best practices in energy efficiency, environmental protection, storm water management, and reduced construction waste. The team should meet regularly throughout the various design phases and periodically during construction to ensure these practices are being employed.
4. To the extent practical, building and site design should incorporate best-practices in storm water management; and should incorporate Low Impact Development site design components.
5. To the extent practical, performance objectives should be incorporated into design, construction, and contract documents, and a continual performance verification process should be used throughout the project and at completion.
6. To the extent practical, as determined by the town building committee, all building projects (whether renovation or new construction) undertaken by the town should conform to sustainable design principles.
7. School projects (i.e., K–12 public schools) will comply with Massachusetts regulations (currently CHPS (Collaborative for High-Performance Schools)).
8. The Town's Permanent Building Committee and project-specific building committees should fully consider the lifecycle costs of the building when determining the project's budget, giving consideration to operating costs, including future utility costs and environmental costs.
9. The town's building committees will include in contract documents a statement that all construction vehicles must observe state anti-idling regulations.
10. The Belmont Board of Selectmen embraces these policies and practices as they set a leadership example to town residents, developers, and other communities. The Board also encourages development in the private sector (e.g., residential homes and commercial/industrial buildings) to follow the strategies outlined above to ensure maximum environmental and economic benefit.