

Green Building Highlights



Thanks to Denny Frehsee

Building Shell

- The insulation levels are specified with minimum R-25 at the walls, R-40 roof system, and R-20 at the foundation and slabs.
- All of the windows are triple-glazed with fiberglass frames to minimize heat loss.
- Throughout the assembly process of constructing the building shell, all the details and construction techniques required a high level of attention to sealing the exterior envelope against air infiltration, resulting in a superior, tight, thermally-efficient high performance building.
- There is a green roof over a part of the store, while the rest of the store's roof will be set up structurally to be retrofitted with a green roof as funds become available in the future. Green roofs reduced the "urban heat island" effect, help cool the building in the summer, and mitigate storm water runoff by absorbing and slowing roof rainwater.
- The building is partially clad in slate siding, a natural, durable, local Vermont product. It has better energy performance than brick, and also reduced the structural steel requirements, which is both cost-effective and uses fewer resources and less embedded energy in the production of the steel.
- Building finishes were specified to be the latest in recycled, natural, durable, and eco-friendly products on the market.

Floors and Surfaces

- Floors are polished concrete in the store, a natural, durable, and maintenance-free product that will not require solvent-based cleaners or sealers.
- All ceramic tile is made from 100% recycled products.
- All of the counter surfaces are made of a solid surfacing product made from 100% recycled paper, locally fabricated in Springfield, VT.

- All points and coatings will be low- or no- VOC products.
- Recycled and certified wood products have been utilized, such as the pressed sorghum board from agricultural waste.



Site Plan

- The site plan was designed to reduce negative environmental impacts.
- A bio-retention area located in a center island will treat storm-water runoff from the parking lot.
- Overall impervious surfaces have been reduced from the present conditions, further reducing runoff.
- Along the Whetstone Brook, there will be a 20-foot vegetative strip to treat the overland flow of storm water runoff.



Heat, Light and Electric

- Within the Co-op grocery store, the refrigeration equipment has been specified as highly energy efficient. During the winter months, the waste heat will be recaptured and recycled, to provide space heating for the building, including heat for the tenants of the apartments above. All year long, this same waste heat will provide all domestic hot water needs for the apartments and the Co-op.
- Natural daylighting is maximized in the Co-op store and offices with the careful layout of skylights and the use of interior light-reflecting blinds to bring the daylight deep into interior spaces.
- All of the artificial lighting has been designed using state-of-the-art energy-efficient light fixtures that will require minimal watts per square foot to operate and fully light the store after dark.
- All of the various pumps and motors required to operate a grocery store will be high-efficiency variable-speed units to cut electrical loads to optimum levels.

Solar

- The electrical system and the roof's structure are being set up for the addition of a solar-powered photovoltaic array to produce electricity. This project will come online sooner than expected, due to a collaborative project with Co-op Power from Greenfield, MA.

2002 Started public conversation on whether to move Co-op to former Grand Union space on Putney Road

April 2002 Board invites environmental group Natural Logics to speak at annual meeting as part of process to educate board, management, and shareholders about green building and sustainable communities



2003 Began multi-year community engagement process • Decision to stay downtown based on shareholder and community feedback (community concerned about impact the business leaving would have on downtown) • Started to negotiate purchase & sale agreement with BAST corporation

August 2003 Received preliminary report from Natural Logic: *Preparing the Ground for a Regenerative Market and Marketplace*

January 16, 2004
Purchase Co-op Plaza property

March 2008 Feasibility study – 4 options: systems improvement/ minor renovation, major renovation, build new, do nothing

August 2008 Board of Directors approves concept of going forward with new building

October 2008 Shareholder referendum to move forward with pursuing a new building: 77% in favor

November 2008 "Stone Soup" Community Design Charrette for Co-op and community stakeholders

February 2009 BFC Regenerative Design Charette for professionals in alternative energy

May 2009 Development Agreement signed between BFC, Housing VT, and Windham Housing Trust

May 2009 \$1 million shareholder loan campaign launched



September 28, 2010
Groundbreaking ceremony

mid-June 2012
Anticipate new store opening

mid-September 2012 Projected date for final completion of site work, including new parking lot



2002

2003

2004

2008

2009

2010

2012

