



handsOn

A newsletter of the
Boston Building Materials Co-op and
the Building Materials Resource Center

Fall 2009

BMRC / BBMC CUSTOMER PROFILE

Something Old, Something New

Linda White has tapped both the Co-op and the Resource Center to improve her Hyde Park home



The siding of Linda's home, which had been damaged by an automobile, was repaired by a contractor from the Co-op's tradesperson referral file.

Since 2002, Linda White has made her home on a small street near Hyde Park's Cleary Square. Bit by bit, she has been making improvements to the two-family dwelling—first to the rental unit and then to her own—with help from both the Boston Building Materials Co-op and the Building Materials Resource Center.

Linda has made use of the resources of both organizations to tackle a variety of projects: replacement windows, a kitchen redo, repairs to damaged siding, adding downspouts, water heater replacements, and more. Just as important as the materials she's purchased has been the Co-op's contractor referral list. "Everyone the Co-op has referred me to has been really

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Air Sealing and Insulation: A Windbreaker and Sweater for Your House

By Deb Beatty Mel

With winter approaching, people are looking for ways to make their homes more energy efficient. And it's a great time to act: federal tax credits and utility rebates make the work more affordable.

Many homeowners may be considering expensive heating system upgrades or replacement windows. But there are more cost-effective steps to take first: *air sealing* and *insulation projects* that have relatively low cost, can be done yourself, and will pay for themselves in reduced costs more quickly.

Air sealing and insulation have been compared to a windbreaker and a sweater.



Air sealing, the "windbreaker," stops the flow of air through gaps and cracks, keeping warm air inside and reducing uncomfortable drafts. Insulation is the "sweater" that reduces heat lost by conduction through ceilings and walls.

Air sealing

Air movement can cause heat loss around the perimeter of the house—exterior doors, windows that don't close tightly, and wall penetrations for TV cables, electrical wiring, etc. Air also gets in through seams around trim and through the largest common opening, the sill where walls meet the

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Co-op News

SELECT PRODUCTS AVAILABLE AT THE CO-OP

Door weather stripping kit

Shut out drafts this winter! The Co-op's door weather stripping kit is easy to install with basic tools and a few nails. The vinyl and foam Q-lon seal comes in brown and white, and the wood carrier strip can be painted to match your woodwork. Install a door kit on any door in your home that leads from a heated space to an unheated one. (\$17.85 for three-piece kit)

Door sweep

Complete the seal around your doors with a door sweep at the bottom. Comes in metal or wood in a variety of styles. (\$4.99-\$18.00 each)

Fiberglass pipe insulation

As steam or hot water travels to your radiators, heat can get lost along the way through the pipes in your basement. Save energy by insulating pipes with fiberglass sleeves. Insulation comes in three-foot lengths, in different sizes for different size pipes. Prices vary, but 1"-thick insulation for a 1" pipe is \$1.50 per linear foot, and, for a 2" pipe, it is \$1.90 per linear foot.

Tyzall interior storm windows

This kit provides a simple, low-cost way to eliminate drafts from windows. Adhesive strips are mounted around the edge of the window (kit includes eight 26"-long strips) and a six-foot length of heavy-duty (4 mil) clear plastic snaps into the strips to form a barrier to air infiltration. (\$8.80)

Gap-sealing foam

Pur-fill expanding foam fills gaps and cracks to stop drafts and improve energy efficiency. It is a moisture-curing urethane foam that bonds to most construction materials. A special gun applicator (\$38.21) is required. (\$16.96 for 32 fl. oz. can)

Radiator reflectors

Reflective foam board can be cut to size and placed behind your radiators to direct the heat back into the room instead of heating the wall. (\$9.50 for 3' x 4' board)

Bronze window weather stripping

Hard-to-find weather stripping will keep away drafts for many years. Cushion bronze (V shape, 1-1/8" wide) comes in 7' lengths (\$10.62). Spring bronze (1" wide) comes in rolls of 100' (\$109.08). Other widths are also available.

Harvey Tru-Channel storm windows



Contractors and architects consistently name the

Tru-Channel as one of the best-quality storm windows you can buy. The triple-track design features a rigid meeting rail where top and bottom storm sashes snap in securely for a low air infiltration rate. Available in white, bronze, almond, or black. BBMC can also install storm windows for you. (Call for pricing.)

Prices include the member discount and are subject to change without notice.



Q&A Day at the Co-op



Plumber Matt Nelson was one of five tradespeople available to answer questions during the Co-op's Homeowner/Contractor Q&A Day on October 17. With a focus on weatherization, the event also provided an opportunity for customers to ask questions of a carpenter, insulation contractor, energy efficiency specialist, and window restoration contractor.

Solar Panels Keep Cranking Out Savings

By Matthew St. Onge

The Co-op's photovoltaic solar power system is producing impressive results. Now that the system is more than one year old, we are able, and delighted, to report its performance data.

energy rebates—we were required first to have an energy audit performed. Rise Engineering conducted an audit and presented steps we could take to lower our energy consumption. We installed a



Weatherization: Party On!

The Co-op has been working with community groups to supply weather stripping, caulk, gap-sealing foam, and other materials for community work days such as this weatherization party organized by the Boston Climate Action Network and ACORN at a Jamaica Plain home last spring. If you are part of a community group that is considering such an event, please contact us. We'd love to work with you!

Kilowatt-Hour Comparison			
	2007-08	2008-09	Change
August	2,615	1,658	-36.6%
September	2,142	625	-70.8%
October	2,033	710	-65.1%
November	1,711	1,005	-43.3%
December	1,730	1,071	-38.1%
January	1,823	1,028	-43.6%
February	1,889	1,094	-42.1%
March	1,645	413	-74.9%
April	1,741	135	-92.2%
May	1,763	Not available	
June	2,236	Not available	
July	1,658	534	-67.8%

During the 12-month period of August 2008 through July 2009, we produced 10,498 kilowatt-hours of power and paid \$1,564 for the power we bought from NSTAR. During the same period a year earlier, we paid NSTAR \$3,922. The difference of \$2,358 is a savings of 60.1 percent. Our initial projections were to save 50 percent on our electric bill.

Not all the savings can be attributed to our solar panels. As part of the agreement with the Massachusetts Technology Collaborative—the entity that handles the state's alternative

number of new overhead light fixtures, replaced all our fluorescent bulbs with new, slimmer ones that use less energy, and began turning off all computers at night instead of leaving them on standby.

With our initial projection of saving \$2,000 per year on electricity costs, plus future tax savings from depreciation, we estimated that we would recoup our investment in the solar panels in five to six years. Looking at the first year of data, we can see that we may reach that point even earlier.

Stock Up on Ice Melt

Delivery available in Roxbury and JP; order by Dec. 3

Now that fall is here in earnest, the snow can't be far behind. Be prepared for the annual challenge of keeping walkways, steps, driveways, and sidewalks clear of snow and ice by stocking up on our environmentally friendly ice melt. Once again, we will offer ice melt delivery to Co-op members in Roxbury and Jamaica Plain. **All deliveries will be made on Saturday, December 5, for orders placed and paid for by December 3.** There is a four-bag minimum for delivery and a delivery charge of \$1.00 per bag. Delivery is available for current Co-op members only. Member price per 25-pound bag is \$11.95; delivered, it is \$12.95 per bag. Of course, you can also stop by and pick up a supply at 100 Terrace Street, Roxbury Crossing.

The Co-op's ice melt is a blend of urea and sand. Urea melts ice and snow and, unlike rock salt, will not irritate pets' paws or harm nearby plants. (In fact, urea is a fertilizer component and is beneficial to vegetation.) The sand provides traction to prevent slipping and sliding.

Don't let the opportunity slip by! For more information, or to place your order, call the Co-op at 617-442-2262.

Resource Center Annual Report Now Available

The annual report of the Building Materials Resource Center is now available! To reduce printing and postage costs, we have made the report available online this year. To view or print it, visit our Web site (www.bostonbmrc.org), click the "About Us" link near the bottom of the home page, and look for the annual report link. The report pays special tribute to our donors of materials, including businesses, contractors, property managers, and homeowners such as John Derbort and Nancy Kressin (pictured), Co-op members who redid their kitchen and donated



the old cabinets to the Resource Center. If you'd prefer to receive a paper copy, you can either stop by our store, email your request (include your name and address) to bmrc@bbmc.com, or call 617-442-8917.

Resource Center News



Support the BMRC: It All Adds Up!

Web surfing at Goodsearch

Goodsearch.com is a search engine that benefits the organization of your choice every time you use it. Visit www.goodsearch.com and search for "Boston Building" to find us (BMRC's legal name is the *Boston Building Materials Co-op Charitable and Educational Fund*). Then every time you search, proceeds are sent to the Resource Center.

Network for Good

Visit www.networkforgood.org to set up a monthly, quarterly, or annual donation using a credit card. You can also make a dedication gift in someone's honor or memory.

Earth Share of New England

If your employer offers workplace charitable giving through Earth Share, consider designating BMRC as your charity of choice. You can do so by using BMRC's five-digit number: 48135.

Gift registry

Through www.justgive.org, you can set up a gift registry for your wedding, birthday, or other occasion. Let your friends know that they can support the organizations you care about in lieu of giving gifts. To get started, visit www.justgive.org.

Curiouser and Curiouser

A segment for PBS's Curious George show was taped at the Resource Center in late September. Three kids visited our warehouse to learn about sorting and categorizing as they made sense of a pile of doorknobs, switch plates, hinges, and other household objects. The show will air at an undetermined date in the future, but in the meantime, our hardware shelf has never looked better!

Forklift Needed

Does your organization have a forklift you'd like to donate to a good cause? The Building Materials Resource Center could benefit from a forklift to unload donated materials from our truck and move them out into the showroom. Please call us at 617-442-8917 or email info@bbmc.com if you can help!



Mark Kennedy Honored for Outreach Work



Boston Building Materials Co-op Chairperson Mark Kennedy was one of 10 men recognized this past summer by *Unity First* magazine for “leading by example.”

Mark was chosen for his work raising awareness about prostate cancer at the Dana-Farber Cancer Institute and legislative advocacy efforts through

the American Cancer Society. Using the same marketing and communications skills that he brings to the Co-op and Resource Center boards, Mark is working to increase health screening rates, help patients navigate the health care system, and increase the number of African Americans who take part in clinical research trials.

Other recipients include J. Keith Motley, UMass Boston chancellor; Ron Ancrum, president of the Community Foundation of Western Massachusetts; and Massachusetts Gov. Deval Patrick. He’s in pretty good company, we think!

Weatherization Partnership Continues

Through a partnership with the Dudley Street Neighborhood Initiative and Dudley Neighbors, Inc., the Boston Building Materials Co-op is helping local residents save energy by stopping window and door drafts while local youth receive training on how to install energy-saving materials in homes.

The effort, which began last spring, has been gaining momentum now that the colder weather is imminent. By signing up for the program, local residents can have a door weather stripping kit and five interior storm windows installed for a minimal cost. Call the Dudley Street Neighborhood Initiative at 617-442-9970, ext. 17, or email jwebb@dsni.org for details.

Youth workers, who have received training from the Co-op, install the items. If residents want more materials to install themselves, they can receive a significant discount on these items with a coupon. A grant from an anonymous foundation has made this project possible.



Meet Our Newest Board Member: Kyle Freeman

Kyle Freeman has joined the board of directors of the Boston Building Materials Co-op as well as the board of trustees of the Building Materials Resource Center. Kyle is founder and owner of Cloud 9 Organize & Redesign, which helps people rethink their space in an earth-friendly way by repurposing, restyling, and rearranging what you already own instead of buying all new things. A Jamaica Plain resident, Kyle also blogs for the design Web site Apartment Therapy.

Stay Warm This Season

Action for Boston Community

Development (ABCD) has greatly expanded its weatherization program for income-eligible homeowners, thanks to money from the federal stimulus. Weatherization can save an estimated 20–30 percent on heating bills through air sealing and attic and wall insulation. To be eligible for free weatherization work, households must be at or below 60 percent of area median income—that’s \$53,608 for a family of four or \$27,876 for a single person. For more information, call ABCD at 617-347-6012 or visit www.bostonabcd.org.

In addition to weatherization, residents can access several resources for fuel assistance if they’re having trouble paying energy bills:

- **Action for Boston Community Development**, fuel assistance: 617-357-6012, ext. 6640
- **Citizens Energy Oil Heat Program**, fuel assistance (Nov. 1 through Feb. 28): 1-877-JOE-4-OIL (1-877-563-4645)
- **United Way**, referral to fuel assistance programs: 1-800-231-4377

Air Sealing and Insulation

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foundation. In addition, heat loss can be a problem in areas where air can move vertically. Warm air, which you've paid to heat, rises to the attic around a hatch door or plumbing vent, pulling cold air into the house from below. This is known as the "stack effect," and it can occur within the interior core of your house—not a place one normally would expect.

The most common test for air leaks is a blower-door test. I had one of these done this fall as part of an energy audit on my home. With all windows and doors closed, the blower door (a metal frame covered with nylon cloth with a powerful fan fitted into an exterior doorway) was activated,



A blower-door test measures the amount of air that flows through a house and allows one to detect areas of air infiltration.



A piece of foam carpet pad can be used to block drafts around the pulleys of older double-hung windows. Pull the rope or chain out a bit, insert the foam pad, and release the rope or chain so the weight holds the pad in place, blocking the opening around the pulley.

depressurizing the house. Replacement air found its way in, allowing us to easily spot drafty areas.

Even without a blower door, a homeowner can search for areas of air infiltration using common sense and your senses. If you feel a draft, take a few minutes to trace it to its source. Sometimes smoke pencils are used for this, but incense sticks can also serve the purpose of making air flow visible. One technique is to use hand sanitizer to better feel leaks via evaporation on your hands.

Drafts around doors can be fixed with a door weather-stripping kit and door sweep. For windows, there are a number of things to check. Is the window completely closed and locked? Is it weather stripped? Is the storm window closed tightly?

If, like me, you have older double-hung windows with weights and pulleys, you will have air infiltration through the pulley opening. This can be tackled from the outside (by caulking the joint where the casing meets the sill) and from the inside (by blocking the opening with a piece of carpet pad or a pulley seal). Gaps where the two sashes meet can be blocked with removable rope caulk. (If you're interested in learning more about tuning up older double-hung windows to make them work better, consider taking our Window Rehab workshop.)

One of the biggest surprises revealed by the blower-door test at my house was stack-effect air movement from the bottom of my built-in china cabinet. Because the cabinet is not on an exterior wall, I hadn't given it a thought as

an area for energy loss. But the flooring under the three drawers had gaps big enough to see through. The energy auditors used expanding foam to close these up.

The auditors also flagged the fireplace as a problem area. The stack effect caused drafts where the wood of the mantel meets the brick of the fireplace. They recommended caulk to eliminate the draft here (fire-rated caulk should be used, since it's an active fireplace) and also recommended sealing up the top of the stack, where the chimney comes through the attic floor. Again, because it's an active fireplace, non-combustible materials were needed. I used aluminum flashing stapled to the attic floorboards and closed up the gap between the flashing and the chimney bricks with fire-rated caulk.

Another area to check for air infiltration is the basement. Look for the bottom of any stack-effect areas and seal them with caulk or foam. Also seal the rim joist—the part of the home's frame that sits on top of the foundation. Expanding foam can be used at the top and bottom edges of the rim joist, or use a two-part foam with a wide spray to cover the whole area. Try looking for spider webs: spiders seek drafty areas to catch prey.

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Something Old, Something New *continued from page 1*

good,” Linda said. That includes the Co-op’s own installation of replacement windows in one unit and in the basement, where the old windows were in roughest shape. Some of the materials for her remodeled kitchen, including granite floor tiles, came from the Building Materials Resource Center. Linda has taken a conservative approach to financing

having an emergency fund in case something breaks down. “Winter is the toughest season,” she says. “If something breaks down during the winter, it can be much more expensive to fix.” One year, both hot water tanks failed at the same time. She’s learned that having preventive maintenance done on the furnaces goes a long way to helping prevent unpleasant



The glossy granite tile of Linda’s kitchen floor is one of the bargains she’s found at the Building Materials Resource Center.

“It’s a great feeling to own a home,” said Linda, who found out about the Co-op and

more mature, because you are building your life with it.”

To me, a house is nothing but four walls. You have to put yourself into it. Then it becomes your home.”

projects: “I try to pay for each project in full, so I don’t get into a lot of debt,” she said. Experience has also shown her the importance of

surprises. Linda’s next goal is to take some of the workshops to learn about doing more home improvement projects herself.

Resource Center through the City’s Department of Neighborhood Development. “You make the decisions. You are responsible. It makes you

In addition to renting out one of her house’s two apartments, Linda hosts international students in her spare bedroom during the summer months. “To me, a house is nothing but four walls. You have to put yourself into it,” she says. “Then it becomes your home.”

Air Sealing and Insulation

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Insulation

While air sealing stops heat loss due to air movement, insulation stops heat from being conducted through the structural materials of the house itself: wood, drywall, plaster, etc. Fiberglass batts and blown-in cellulose are the two main types of insulation for attics and walls. Currently, utility rebates are available to pay up to 75 percent of the cost of insulation work, with a maximum of \$2,000. (MassSave.com has more information about rebates.)

Resources for More Information

EnergyStar.gov has a “home energy yardstick” to measure your current level of energy use based on past utility bills, a downloadable *DIY Guide to Sealing and Insulating*, details about federal tax credits for energy efficiency, and more.

MassSave.com, a Web site sponsored by local utilities, can get you started with an energy audit and information about rebates.

The Massachusetts Climate Action Network

(massclimateaction.org) and Boston Climate Action Network (bostoncan.wordpress.com) have classes, lifestyle tips, and opportunities for involvement.

Make energy-saving choices

We’d be remiss if we didn’t mention the many choices we can make to minimize our

energy use. Using a programmable thermostat to turn the heat down when you’re away from home or sleeping,

washing clothes in cold water, and switching to compact fluorescent light bulbs are just a start. The *Low Carbon Diet* book is full of practical suggestions for reducing your energy bills and your impact on the environment.

The Boston Building Materials Co-op has been helping people weatherize their homes since 1978. Whether it’s through a workshop or by helping you finding the right materials for your project, we want you to stay warm within your budget this winter.



handsOn

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The Boston Building Materials Co-op is a member-controlled, not-for-profit building materials retailer and technical assistance provider. Founded in 1978, we specialize in cabinets, counters, windows, doors, and weatherization materials. We offer a range of affordable homeowner support services, including in-home consults, educational workshops, a tradesperson referral file, a lending library, and a window and screen repair clinic. You don't have to be a member to shop at the Co-op.

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The Building Materials Resource Center is a project of the Boston Building Materials Co-op Charitable and Educational Fund, a 501(c)(3) charity. Founded in 1993, the BMRC is a building materials reuse center that accepts donations of new and used building materials and distributes them to homeowners, nonprofits, and small businesses. Anyone may shop at the BMRC, with substantial discounts offered to income-qualified customers and nonprofits.

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