



Fostering Regional Development, Design & Construction

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## Evergreen coop laundry

### Clean and green

**A cooperative economic venture takes a cooperative design and construction team**

BY CINDY GRAHL

As Cleveland reinvents itself as a greener city, new ideas emerge about both the built environment and economic development to create jobs for the people who inhabit it. Nowhere is this more true than at University Circle. Part of the Greater University Circle initiative is finding ways to encourage local purchasing by anchor institutions, to get local residents into entrepreneurship and to increase the regional focus on green industries. These three streams came together very recently in the Evergreen Cooperatives, a pioneer model of employee ownership, job creation and sustainability. One immediate need was seen in the Veterans Administration consolidation at the Wade Park location, which eliminated laundry operations at the VA in Brecksville, as well as the 40-mile round trip Cleveland VA laundry had taken to get there.

So was born the idea of an Evergreen Cooperative Laundry located at Wade Park. It would carry out important work, but it would hire employees from the Circle area who needed jobs and, as a cooperative, train them for ownership. Kent State's Jim Anderson, of the Ohio Employee Ownership Center, was brought in to set up the cooperative. According to Anderson, "The worker/ownership model is a lab for a new kind of economic development."

The set-up is based on a similar one in Mondragon, Spain, which has led to a spinoff of 100 global businesses. The laundry itself would be on the campus of investor Shorebank, and would benefit from the proximity of Shorebank tenant Entrepreneurs for Sustainability. The intense need for capital to begin a commercial laundry was met, with a six-month lag following the lending crisis hit.

So from mid-April through early September of this year, a 12,000-sf vacuum cleaner company turned torpedo manufacturing facility turned automotive machine shop was refurbished by D-A-S Construction, with Al Welter, LEED-AP, serving as project manager. It would be certified, as a tenant lease space, under LEED for Commercial Interiors. A 10-year lease lends itself to further sustainability.

#### **Reuse, recycle**

Design work was done by Doty and Miller. According to Chuck Miller, the challenge was to use the energy embodied back in the day in a 1910's building for a modern day resource—the brick, the concrete and the wood. "We keep driving to use existing buildings, whether they are Plain Jane like this or landmarks," says Miller. "It is frustrating to see buildings go down for parking lots. The building, from a century ago, was well built enough to allow us to keep using it."

To earn the long-existing space a coveted LEED Silver for this very demanding purpose, the building and all equipment had to have ultra high energy efficiency, as well as ventilation that accommodated the high-humidity use and air systems that could control air flow between the dirty and clean linen sides to avoid contamination. Another challenge was creating enough gas pressure to meet the demands of the laundry.

Welter is one of the first LEED accredited professionals in the region. He says that natural light was added and security maintained using skylights and glass block ribbon windows, a feature management would like to extend should future budgets permit. Daylighting here also helps assure the finished goods are clean.

Most of the floors are polished concrete, with Interface carpet tiles in breakrooms. The damaged slab floor had to be replaced, and the dryer area had to have its roof raised to allow room for the commercial dryers, with GreenSource high efficiency panels used for roof insulation.

Other green features include dual control water closets, waterless urinals, low-flow plumbing in staff areas, motion sensors to light only used areas, high efficiency fluorescents, and low-VOC paints and floor finishes. Bike racks, showers, natural plantings, and parking for low emitting and carpool vehicles, as well as location on a busline, also add points, and rooftop solar may be added when a sister solar cooperative is up and running.

HVAC, says Welter, is state of the art, with air conditioning in breakrooms. The heat generated by the laundering and pressing process is mitigated by fans and by exceptional hoods that pull heat from pressing areas. Plus, coaxial ducts in the dryer area bring heat from the dryers back into the loop, so that incoming air is preheated. In addition, a stand-by generator can serve 24/7 should the power fail.

Outdoors, reclaimed brick was used in an area where the garage doors had stood, and then painted over by artist Bob Peck with three murals, designed by the Doty & Miller staff. These represented the People, Planet, Profit mantra of the green movement, using a graffiti-like design featuring water. "Bob was just terrific, and did these in just a day," says Miller of the artist, who was recommended by Cleveland Public Art.

### **In hot water**

But it is in the operation that this project shines. Laundries are not thought of as green businesses, with their needs for water, chemicals and heat, but they can be designed as such. The facility is managed by Dick Szczepinski, who has 20 years in the field. It now employs eight, with an eventual workforce of 40-50 people.

The project was able to make this operation uber-sustainable via use of the latest in American-made laundry technology. A seven-part tunnel washer from New Orleans-based Pellerin Milnor can take 150 lbs. of laundry in each of its compartments, from presoak to final rinse, with the machine making seventeen 270-degree swings internally to agitate the load and a final 360 -degree turn to push laundry along. Cleaning and pH balancing agents are all EPA-approved. At the end, it is pressed at 450 psi, and the laundry, with only 10-12% water content, is sent to dryers—automatically.

Meanwhile, the water is filtered and reused according to a set pattern that advances water through an increasingly "graywater"

system. Plus, the heat from the used water gets transferred to incoming water, saving an estimated 35% in energy needed to heat it to 150 degrees. In this way, 150 lbs. of laundry can be washed every 3.5 minutes. The resultant efficiency allows the facility to use .8 gal. of water for every pound of linen, and that is compared to the 4-6 gal per pound used in the average residence.

A microprocessor controlled conveyor system automatically takes these blocks of laundry to be weighed and sorted and then dried, using equipment from Fairfield Laundry Machine, and finally to be pressed, with an oil-based heating system that is hotter and less expensive than steam. It's quick throughput means faster service, and lower energy use as well. The equipment, from Chicago Powerhouse, which is headquartered in that city, is much easier to use than an old-fashioned mangle, and one operator can easily send a sheet through the self-stretcher to be pressed and folded into any size and shape and stack height, with 900 sheets per hour possible. The work crew, totally inexperienced in laundry service when hired, soon becomes productive thanks to the automation. The 13,000-sf building was designed to be able to handle 15 million lbs. of laundry with some equipment investment, but plans now are to capture 4% of the market within 10 years, handling exactly 10 million lbs. in the growing healthcare marketplace.

"It was a pleasure working with the creators of Evergreen Cooperative Laundry. Jim Anderson showed incredible determination and belief in the project from the first day we met.

He insisted on, not only the best equipment, but the most environmentally-friendly equipment," says Welter.

Equipment was supplied by the M&L Supply Company. According to president Steve Michalec, "We were fortunately able to provide Evergreen with the most energy-efficient laundry equipment available. And, it is all made in the U.S. The Milnor continuous batch washer we installed uses less than one-third of the water required by typical washer/extractors. The Chicago Powerhouse ironer is self-contained, eliminating the need for a large steam boiler and the TEA heat recovery system uses heat from wastewater to preheat fresh water. Milnor gas dryers are fitted with FLM coaxial ducts, which preheat the fresh air being supplied, with heat from the dryer exhaust. The firm's sales technician, Ray Salmons, worked very closely with Evergreen to insure the laundry was the "greenest" possible. "We are excited to be a part of this project," says Michalec.

### **Very cooperative**

Welter says that the project is shooting for 32 LEED points in the commercial interior category under the LEED 2.0 system, with innovative points for having 95.4% of construction waste recycled. Concrete and asphalt are all recycled, and the lot was backfilled with the original materials. Plus, three original garage door openings were filled with recycled brick. The project cost \$1.3 million for building renovation and \$2.5 million for equipment.

"This project went well, because everyone was on the same page," he adds. "It was less stressful than I thought, and I am

very pleased at the way it turned out. They will do well in business and serve the neighborhood.”

Says Miller, “It was great to be able to work with the City of Cleveland, the Cleveland Foundation, Shorebank and the other partners on this. We are also excited about the employment concept, the idea of employee ownership, and the use of the laundry as a means for local development. Shorebank has built a very viable center here for neighborhood progress.”

This co-op model is expected to be replicated in other businesses under the Evergreen Cooperative Development Fund, which will receive monies and lend them to new coops:

Ohio Solar Cooperative, a community-based energy company that will perform large-scale installations of solar panels on nonprofits, with the first being a Cleveland Clinic building, as well as residential weatherization.

Green City Growers will be housed in a 5.5-acre greenhouse on 14 acres along I-490, a large-scale hydroponic growing area for lettuce, herbs and other crops, to launch next summer.

Neighborhood Voice, an information source for University Circle that integrates print and online media.

Others could be added, per the Mondragon model. BXM

\Owner: Evergreen Cooperative

Architect: Doty & Miller

GC: D-A-S Construction

Size: 13,000-sf

Timeline: 6 months

Vendors:

n Ballast Fence, fencing

n Bassett Sprinkler Protection, fire sprinklers

n Cascade Construction, skylights

n Coleman Spohn, plumbing

n Door Specialties, Inc., doors and hardware

n Garbo Third Co., painting

n Grafton Building Specialties, toilet components

n Green-Source Products, insulated wall panels

n HS Development Corp., roofing

n Imperial Heating and Cooling, HVAC

n National Commercial Floors, flooring

n Norm King Construction, masonry

n North Coast Concrete, concrete

n The M & L Supply Company, equipment supplier

n Timbers Kovar, dock lifts

n Ullman Electric, electrical

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