SUBMISSIONS



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Salem Kroc Center

Laden with lighthouses, geysers, and Douglas firs—the natural iconography of the Pacific Northwest—an Oregon community center provides local residents shelter from life's storms.

By Matt Alderton

Buildings expend as much energy during play as people do. That's a fact that drives the designs of Denver-based Barker Rinker Seacat Architecture (BRS), the architect of record for The Salvation Army Ray & Joan Kroc Corps Community Center of Salem, Oregon. The Salem center is one of 26 such institutions around the country-funded in part by Joan Kroc, the widow of McDonald's founder and CEO Ray Kroc—and one of eight nationwide that's been designed by BRS. Principal Steve Blackburn explains why the Salem Kroc Center is a LEED Silver-certified portrait of the Pacific Northwest.

Site

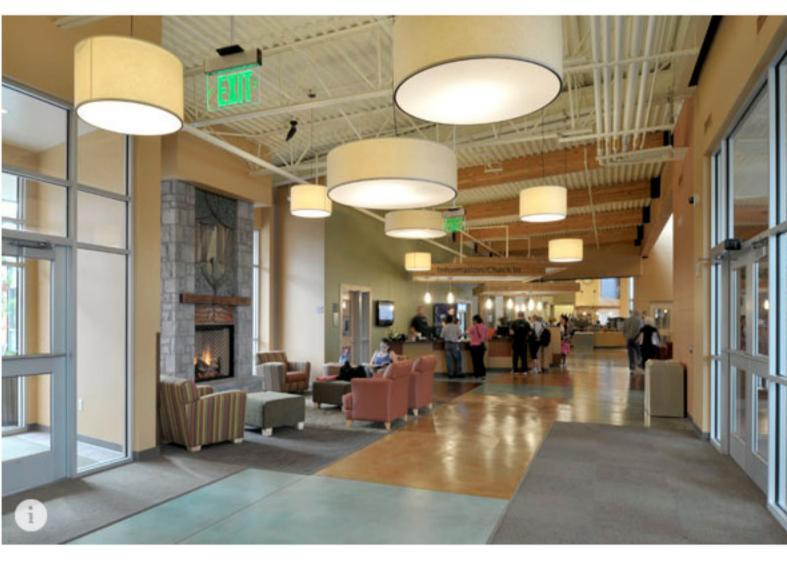
"There are a lot of needs in the community," Blackburn says of Salem, which is one of Oregon's most underserved cities in terms of recreation. Fortunately, the city is trying to repair some of what's damaged, particularly in North Salem, an industrial area that's been targeted for improvements. It's here, on a roughly 10-acre site-previously an abandoned gravel pit-that The Salvation Army decided to build the Salem Kroc Center.

"It was leftover land," Blackburn says. Leftover, but not lost. Adjacent to the site, the City of Salem turned identical gravel pits into a 22-acre wetland park that eventually will include a system of walking and jogging paths. To make the entire area more accessible to Salem residents, BRS leveraged the Kroc Center's position as a "pioneer building" in the neighborhood to secure a new bus stop at the facility's entrance and to install directional signage on nearby arterial roads.

Project Location Salem, OR Size 91,500 square feet Completed 2009 Program Classrooms, chapel/performing arts center, commercial kitchen, meeting rooms, daycare center, gymnasium/fitness area, and aquatics complex Awards Aquatics International 2011 Dream Design Award, 2010 Innovative Architecture & Design Award, Recreation Management, 2009 Award of Merit, American Institute of

Architects Salem Chapter

Exterior The Kroc Center's design theme is "shelter from the storm." "In the Pacific Northwest, it rains a lot," Blackburn explains. "We took the theme of this project not only philosophically—providing Salem residents shelter from the storms of life-but also literally by providing sheltering elements to the building itself." The facility's signature design element is a series of large overhanging cedar canopies that shelter visitors when it rains. Also useful during rainstorms: the Kroc Center's exterior phenolic rainscreen cladding that keeps water away from the building's structural frame, prevents air leakage, and reduces energy losses.



Layout

Team Architect Barker Rinker Seacat Architecture Client The Salvation Army Cascade Division Associate Architect CB|Two Architects + Construction **General Contractor LCG** Pence Construction

The Kroc Center features a tripartite design: In the center is the entrance and lobby, behind which is a chapel that doubles as a performing arts center. To the left, meanwhile, is a community wing with classrooms, a commercial kitchen, meeting rooms, and a daycare center. To the right is the recreation wing, which includes a gymnasium, an ADA-accessible fitness area, a 30-foot climbing wall, and an aquatics complex with two swimming pools, a lazy river, and a water slide. "We always use the term 'sustainability' in a much broader

sense," Blackburn says. "It's not just environmental. It's also operational. Because it's all on one level-there are no stairs or elevators-a third-grader can

understand how to use this building. We put the reception desk in the center of the building because we wanted the operator to be able to visually monitor major activities from one spot, which means [The Salvation Army] can reduce its staffing load. As a result, this building is operationally sustainable for the next 75 years."

Interior

Inside the Kroc Center, BRS pays homage to the Pacific Northwest. "We wanted to bring all things Oregon to Kroc Salem," Blackburn says. In the aquatics center, for instance, the water slide wraps around a replica of an historic Oregon landmark-the lighthouse at Yaquina Head-and culminates in a plunge pool where there's a motion-activated "blowhole" modeled after the geysers in Oregon's Depoe Bay coastal region. Elsewhere in the facility, replicas of Douglas firs create an indoor forest that brings the outdoors inside.

Materials

The Kroc Center's Pacific Northwest theme lent itself to many natural and locally sourced materials. In addition to concrete-masonry-unit blocks-most of which were sourced from within a 500-mile radius-BRS used native basalt-stone veneer as a decorative element at the building's entrance, as well as in its outdoor terraces and the fireplace in its main lobby, which also features a driftwood mantel that was recovered from a local beach in Rockaway, Oregon (No.5). Other environmentally friendly materials

include cork wall coverings and carpet made from post-production and post-consumer waste. Water

BRS started with water-efficient showerheads, faucets, and

toilets, but didn't stop there. "We collaborate every week with an aquatic specialist firm called Water Technology Inc. [WTI] out of Beaver Dam, Wisconsin," Blackburn says. "They're pool-design engineers, and one of the sustainable strategies WTI helped us specify included regenerative media filters, which consume about 90 percent less water than traditional, high-rate sand filters. Obviously, that saves the center a lot of water."

Energy

Regenerative media filters lower The Salvation Army's energy usage, which is further reduced in the aquatics center by variable-frequency drive pumps that use less electricity than traditional pumps to power the lazy river, spray features, and blowhole. Energy is further optimized throughout the facility by automated lighting, as well as daylighting techniques: BRS gave the building an east-west orientation that maximizes sunlight, which enters the building-reducing the need for lights to be turned on-via a large glass curtain wall at the facility's main entrance, not to mention traditional skylights that are tinted to maximize light while minimizing glare.

Materials Native basalt stone, salvaged driftwood used for Water Regenerative media

Certification LEED Silver

Site Located on former gravel

pits near a restored wetland, accessible via public transit

Green

filters in the aquatics area consume 90% less water than traditional filters Energy Skylights, automated lighting, and variablefrequency drive pumps reduce energy use Rainscreen A phenolic rainscreen preserves the building's structural frame, prevents air leakage, and reduces energy losses Landscape Bioswales treat storm water before it enters the city's system

Indoor Environment "Indoor air quality is huge in a recreation center," Blackburn says. "Some of the folks coming into the

Kroc Center are dealing with health-related issues such as obesity, high blood pressure, and high cholesterol, and they desire to get their health back on track. Bringing them into a building that's healthy reinforces the center's purpose." To make the air inside the Kroc Center as healthy as possible, BRS required the general contractor to keep the construction site clean after the mechanical ducts were installed and to seal off those ducts to keep construction debris out.



"Every major component of this building has a complementary outdoor component to it," Blackburn

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says. For instance, the chapel and performing arts center connect to a prayer garden, as well as a tiered outdoor amphitheater. The leisure pool, meanwhile, has an outdoor south-facing sun deck and aquatic spray ground. Even the meeting rooms in the community wing open to a terrace for special events. And then there are the bioswales. Situated across the property, they clean and filter storm-water runoff before it enters the city's sewer system. LIGHTING

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