



8 YEAR POST-OCCUPANCY UPDATE

## Lakeline Station Learning Center

Adjacent to the 128-unit Lakeline Station Apartments, the Lakeline Station Learning Center provides educational programming and community spaces for low-income<sup>1</sup> households in Austin. The center offers a well-rounded curriculum, schoolwork assistance, and physical activities for residents, remaining open during the summer to give parents much-needed support with childcare. The building also hosts food pantries, health services, and fitness classes for residents and the community. Completed in 2017, this Zero Energy certified project stands as a testament to cultivating vibrant, thriving communities through enhanced energy resilience, sustainability education, urban agriculture, and the use of healthier materials. Originally featured in the [Living Building Challenge Framework for Affordable Housing](#), this updated case study revisits the regenerative design strategies implemented in the project eight years into occupancy.

<sup>1</sup> Earning 30-60% of the area median income (AMI). The Lakeline Station Apartments also contains 13 units dedicated to Foundation Communities' [Children's HOME Initiative](#), which provides supportive services to at-risk and formerly unhoused families earning less than 30% AMI.

### LOCATION

Austin, TX

### DEVELOPER

Foundation Communities

### PROJECT SIZE

6,000 SF

### TOTAL UNITS

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### COST/SF

\$295

### COMPLETED

March 2017

### FULLY OCCUPIED

November 2017

### CERTIFICATION PATH

Zero Energy

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FOUNDATION COMMUNITIES





## ZERO ENERGY FOR COMMUNITY RESILIENCE

The Lakeline Station Learning Center was the first net zero energy certified commercial building in Austin, meeting its energy needs through a 70 kW rooftop solar array. A combination of thoughtful design strategies—including a high-performance building envelope, an efficient HVAC system with energy recovery ventilation, and heat pump water heaters—enabled the project to achieve outstanding energy efficiency. Nearly a decade into operation, the Learning Center’s photovoltaic system continues to supply a substantial portion of the building’s energy, exemplifying the long-term benefits of Zero Energy Certification.

Despite a few challenges, the project has remained a strong model of energy resilience for Austin. Over time, some components of the system have experienced a decrease in efficiency, and with an increase in occupants, the building’s overall energy use has risen, leading to a reduction in energy performance. Nevertheless, the project continues to play an important role in supporting the local community: when Texas was hit by Winter Storm Uri in 2021, widespread power outages across the state underscored the critical need for resilient, sustainable energy solutions. During this crisis, the Learning Center’s renewable energy system helped to offset the surge in operating costs resulting from increased heating needs and higher demand charges. These savings allowed Foundation Communities to redirect essential funds toward resident services—a vital source of support during a time of great need.

The insights gained from the Learning Center have also contributed to Foundation Communities’ broader approach to energy resilience. During the development process, the project team encountered several challenges<sup>2</sup> with the building’s planned battery storage system. Although battery storage was ultimately not installed at the project, the lessons learned from this



<sup>2</sup> These challenges are detailed in the [Living Building Challenge Framework for Affordable Housing](#) published in 2019.





experience continue to inform the organization's efforts, and they have since established a Climate Resiliency Committee to explore innovative energy solutions and keep the conversation around battery storage moving forward. According to the team, the high cost of battery storage remains the primary barrier, along with a lack of successful, replicable models for similar systems—particularly in the multifamily affordable housing context. As of 2025, the team is piloting battery storage systems in three of their properties, with a long-term goal of creating resilience hubs in the learning centers and other common areas across their entire portfolio.

## NATIVE LANDSCAPING AND WATER REDUCTION

When the Learning Center was built in 2017, the project team prioritized planting native, drought-tolerant landscaping that required minimal maintenance. Eight years later, this strategy has proven successful, with well-established, thriving plants that continue to draw admiration from visitors. When Foundation Communities held its annual fundraising event at Lakeline Station a few years ago, many guests praised the beauty of the garden and landscape. Beyond its visual appeal, however, the native landscaping has also shown remarkable resilience.

During the 2021 winter storm, Foundation Communities lost much of the landscaping across several of their properties—except at Lakeline Station, where most of the plants withstood the extreme conditions.

Edible plants are a prominent feature across the site, and residents are encouraged to harvest and enjoy them. Among the native plants are blackberries, figs, and the edible prickly pear, which holds cultural significance in the region. The Learning Center also includes a community garden space with non-native plants that are grown and harvested each year. This garden plays an important role in the building's educational programming, where children learn about the origins of their food and how it is grown and cared for.

The decision to prioritize drought-tolerant landscaping aligns closely with the project's commitment to substantially reduce water use. Large rainwater cisterns flank the building's facade, supplying most of its irrigation needs and providing water for toilet flushing. While the harvested rainwater continues to offset potable water used by the building, the team has encountered some maintenance challenges—primarily due to limited expertise in Austin with these systems, which can make it difficult to resolve issues quickly.





## A HUB FOR SUSTAINABILITY EDUCATION

Foundation Communities has demonstrated their commitment to a regenerative future by establishing Lakeline Station Learning Center as an enduring hub for sustainability awareness and education. In partnership with local nonprofit [EcoRise](#), the center offers a green education curriculum rooted in the principles of sustainability, climate resilience, and environmental justice. Alongside food and water-related initiatives, energy is recognized as a precious resource and plays a significant role in educational programming.

These efforts extend beyond the Learning Center, reaching all residents of Lakeline Station Apartments. Signage highlighting regenerative design features—ranging from solar energy to harvested rainwater—are displayed throughout the property, and each new resident receives a DIY green cleaning kit that includes a spray bottle, a recipe for a vinegar and an essential oil-based cleaning solution. The kit also provides tips on operating thermostats efficiently, conserving energy and water, and proper waste management.





## KEY TAKEAWAYS: THE SHIFT TO SAFER MATERIALS

Beyond achieving Zero Energy Certification, the project team furthered their commitment to sustainability by selecting healthy building materials for the Learning Center. With the exception of windows and pipe shrouds, all interior finishes are Red List Free. Salvaged wood from the construction of the adjacent residential building was also repurposed for wainscoting, adding a sense of warmth and character to the space.

Eight years later, the interior finishes have held up well and shown remarkable durability in high-traffic areas. The team was especially satisfied with their choice of [Marmoleum flooring](#), which has since become the standard flooring material used in all of their learning centers. While maintaining the linoleum has required additional education—particularly around avoiding bleach and other harsh chemicals—these practices have been integrated into standard operating procedures, making maintenance easier over time. The Learning Center also contains a green cleaning station that limits the use of harmful chemicals, with proper training provided to all new staff and residents.

Their success with Red List Free building products has transformed how Foundation Communities approaches the materials selection process:

*“These non-traditional, safer materials still have the same quality we’re looking for and expecting... Just because we’ve been using something doesn’t mean it’s the only option. And I think we’re always open to change and selecting something safer.”*

AUTUMN GALLARDO, FOUNDATION COMMUNITIES

Safeguarding the health of their residents is a top priority for the organization, especially since many of the people living in their properties tend to stay for a long time. This has prompted Foundation Communities to take the next step in their healthy materials work by joining the [Shift to Safer Materials](#), a new initiative launched by the International Living Future Institute in 2024. Through their participation, the team has undergone training and will engage in a rigorous materials research and vetting process, with the goal of updating their Basis of Design documents to include as many Red List Free or Red List Approved products as possible with little or no cost premium. These updated design standards will be applied across all new construction projects and provide valuable information that will benefit the broader affordable housing sector.





The experience at Lakeline Station Learning Center has revealed that many healthier building products are within reach, even for resource-constrained affordable housing projects. Foundation Communities continues to emphasize the importance of access and inclusion in green building efforts, recognizing that low-income communities are often left behind in the sustainability transition. Their participation in the Safer Materials Shift offers an exciting opportunity to build on these lessons and expand their impact for the communities they serve.

Learning centers and other educational buildings have a unique ability to lead by example and demonstrate [what good looks like](#) for the next generation. From achieving Zero Energy Certification and promoting community resilience to fostering urban agriculture education and prioritizing healthier materials, the Lakeline Station Learning Center has proven that regenerative design is both achievable and accessible,

even in resource-constrained contexts. As Foundation Communities continues to apply these lessons across their work, their commitment to innovation and equity ensures that the benefits of regeneration extend to all communities.