CASE STUDY

An “Icon” of Sustainable Design in Evanston:

Cincinnati Public Radio Headquarters

GREATER CINCINNATI 2030 DISTRICT®

Background

Rising along the “banks” of I-71 in Cincinnati’s Evanston neighborhood is a new building that embodies a rare combination of beauty and functionality. It is the new headquarters and broadcast studios for Cincinnati Public Radio (CPR), and it is also Cincinnati’s first building with a structure made completely of mass timber, an innovative construction material. Though modest in scale, the building seems destined to become a local landmark, an example of sustainable design come to life.

It has been clear for some time that CPR needed a new home, if only for practical reasons. The operation outgrew its rented space in the WCET building in downtown Cincinnati long ago, and noise infiltration from the HVAC system and street traffic meant that it was never well-suited as a broadcast facility. Beyond these practical concerns, however, CPR has long desired a home that could serve as a true reflection of the organization’s values and the stewardship role it aspires to play in Cincinnati.

Sustainability as a Core Value

In talking with Rich Eiswerth, President and CEO of CPR, it quickly becomes clear that his organization’s commitment to environmental sustainability runs deep. Dedication to the long-term health of the community, he explains, is at the core to the mission of public radio, and a healthy environment is part of that. Because of this, the decision to embrace sustainable design was inextricable from the decision to build a new headquarters, and it was never seriously questioned by CPR personnel, the board of directors, or donors.

The commitment to sustainability played an integral role in CPR’s choice to engage emersion DESIGN, a local architectural firm (and Professional Partner of the Greater Cincinnati 2030 District) that prides itself on not only its deep expertise in sustainable and regenerative design, but also on serving mission-driven clients that are trying to make a positive contribution to society. In taking on the CPR headquarters project, emersion DESIGN was able to draw on a deep well of experience in maximizing energy- and water-use efficiency, integrating energy efficiency and renewable energy sources, and using sustainable materials. It was the exploration of this latter category - sustainable materials - that led to what ultimately became the most salient design decision for the new building: to build the structure out of mass timber.

CPR’s commitment to sustainability also influenced the selection of other members of the project team, including Skanska USA Building as the construction manager, Schaefer as the structural engineer, and CMTA as the mechanical engineer. All of these partners have extensive experience in bringing sustainability to the built environment. In the cases of Skanska and Schaefer, they also have deep experience with mass timber

Mass Timber and the Creation of a Local Sustainability Icon

Over and over again, when Rich talks about his team's objectives during the design process, he comes back to the word "iconic." The goal for this new building wasn't just to adequately meet the technical requirements necessary for the broadcast mission, or even to meet those needs in an environmentally friendly way; it was to build something special that could serve as an inspiration and resource for the entire community. The goal, in other words, was to create an iconic landmark; with the decision to utilize mass timber, they very likely achieved it.

Mass timber is not a new material - it was first developed in Europe in the 1990s - but it has not been widely utilized in our region, and never to complete the entire structure of a building, until now. The material is created by cross-laying layers of lumber (essentially 2x4s) and gluing them together to form a kind of wooden layer cake. This process is used to fashion beams, columns, and structural panels that are nearly as strong as steel, surprisingly fire resistant, and can be customized to exacting specifications.

Mass timber offers several benefits, particularly for a building like the new CPR headquarters. First, it results in a space with a warm and intimate acoustical signature, a distinct advantage for a broadcast and performance facility. Second, it is considered a highly sustainable building material because, rather than emitting carbon during its fabrication (as with steel or concrete), trees actually remove carbon from the atmosphere as they grow, and that carbon is encapsulated for the lifetime of the building (and potentially beyond). Finally, and not insignificantly for a building that aspires to landmark status, mass timber is beautiful inside and out. In the CPR building, it has resulted in a building with an exposed structure that creates a warm and welcoming space that people want to be in.

Financial Considerations

The commitment to sustainable design, particularly the use of mass timber, did entail some higher upfront costs when compared with a more traditional steel or concrete building. However, the emphasis on sustainability also produced areas of savings. For example, the use of mass timber led to easier site preparation and reduced assembly time. Since mass timber is a “finish product”, meaning its appearance is already suitable for a finished interior, it also allowed for savings on materials such as drywall, paint, wall coverings, and ceiling materials. The emphasis on sustainability also led to thoughtful attention to energy efficiency. As an example, the building incorporates a radiant floor heating and cooling system that reduces energy consumption. The absence of ducted heating and cooling also leads to better indoor air quality and enhanced acoustics throughout the building - a major benefit for a recording and broadcast facility.

To the extent additional fundraising was required to meet the cost premium, CPR willingly undertook the challenge because of the organization’s core values. But one of the unanticipated benefits stemming from the sustainable design and the use of mass timber is that the project ended up generating significant enthusiasm among donors, who became excited about creating a unique building that exemplified the organization’s values and provided true leadership and connection to the community. This resulted in more and larger gifts than originally forecast because people wanted to be a part of something special.

Parting Thoughts from Rich Eiswerth, President & CEO of CPR

“Apart from being the first mass timber building in the city, Cincinnati Public Radio’s new building is the first (and only) mass timber broadcast facility in the USA. We are justifiably proud of it, not only for its design and construction, but because of the opportunity it offers for public radio to welcome and engage with our community. The building features bright and warm open spaces for public engagement as well as state-of-the-art broadcast and production studios. We look forward to many decades of service to and participation in the social and cultural life of Greater Cincinnati from this location. And we are forever indebted to our great partners in making this dream a reality: emersion DESIGN, Skanska, Schaefer, CMTA, Procraft Media, and Walters Storyk Design Group.”

For further information about this project, please contact:

- Cincinnati Public Radio: Rich Eiswerth
- emersion DESIGN (Architect): Nikki Goldstein, Adam Luginbill
- Skanska USA Building (Construction Manager): Jeff Smoker II
- Schaefer (Structural Engineer): Chris Hahnel
- CMTA (Systems Engineer): Kyle Waymeyer

About the Greater Cincinnati 2030 District: The 2030 District is the energy and buildings program of Green Umbrella. The program helps building owners across the tri-state region to reduce resource consumption, lower utility bills, and lessen environmental impact. We also work with professional service providers in the building sector to connect them with building owners in need of their services. Our work focuses on four pillars of building operations: energy, water, transportation, and occupant health. We provide educational programming and materials, connections to professional and financial resources, and community building events. Participation in the 2030 District is open to all members of Green Umbrella. For more information, please contact greatercincy2030@greenumbrella.org.