

# Adaptive Reuse vs. Renovation

## Whats the difference and which is more sustainable?

By Meghann Gregory and Rebecca Wasson

In wrapping up the Sustainability Quarter of K2M's Pin-Up, we've explored mycelium research and thoughtful product selection strategies to support more informed, sustainable design decisions. The featured subject for March is Adaptive Reuse.

One question that can arise when it comes to proposing an Adaptive Reuse project is: What's the difference between an adaptive reuse and a renovation project?

So, let's clear the air now:

**Renovation:** improves a building for the same use

**Adaptive reuse:** Repurposing a building for a new use

Renovation projects utilize the same use, so when that use cycles through its design purpose, that's where adaptive reuse comes to play. Both approaches are considered interventions in existing buildings, but why should adaptive reuse be a priority in sustainability? One key factor is the limited availability of undeveloped, healthy land. Much of the available vacant land, often referred to as brownfields, has been contaminated since the Industrial Revolution, making it unsuitable for straightforward development. From the definition: Brownfields are abandoned, idled, or underused industrial and commercial facilities where development is hindered by real or perceived environmental contamination.<sup>1</sup>

### Why does adaptive reuse matter more today?

Adaptive reuse is closely connected to sustainability, historic preservation, and urban revitalization. It fosters a dialogue between past and present while helping to reinvigorate neighborhoods and strengthen cultural identity. This approach requires a thorough understanding of site context, building history, and its relationship with the surrounding community. As a result, adaptive reuse presents both a design challenge and an opportunity for creative innovation.<sup>2</sup> Adaptive reuse also supports environmental responsibility by reducing embodied carbon and construction waste, while offering economic efficiencies and the opportunity to leverage existing infrastructure and community assets.

Financial implications concern many clients, but there are cost savings, tax incentives, and the ability to leverage the existing infrastructure. The United States Environmental Protection Agency (EPA) Brownfields and Land Revitalization Program is a program provides grants and technical assistance to communities, states, tribes and others to assess, safely clean up and help to sustainably reuse contaminated properties.<sup>3</sup>

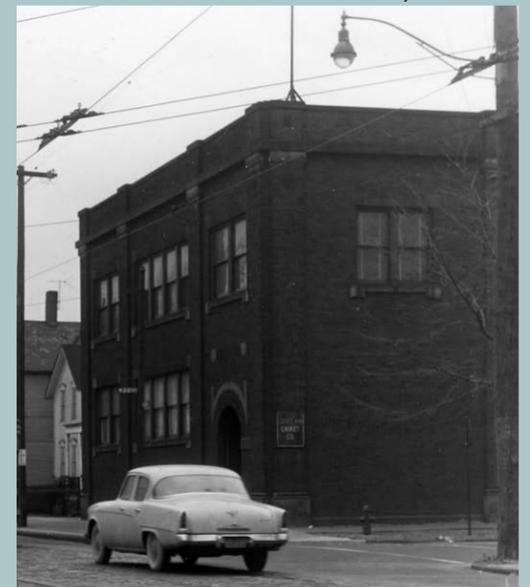
While adaptive reuse offers clear benefits, it also introduces several challenges that need to be considered. Existing buildings often come with structural and spatial limitations that can restrict how easily they accommodate a new use. In addition, unknown conditions, such as hidden structural deficiencies or hazardous materials, can surface during construction, impacting both cost and schedule. Bringing an existing building up to current codes and accessibility standards can also be complex, sometimes requiring compromises or variances to meet compliance. Similarly, zoning and regulatory requirements may add layers of coordination and approval when a building is being repurposed for a new function. From a design standpoint, adaptive reuse can limit flexibility, as the design must respond to and work within the constraints of what already exists. This can make achieving certain programmatic or aesthetic goals more challenging compared to new construction. However, these constraints often become opportunities, pushing the design toward more thoughtful and innovative solutions.

To summarize this Sustainability Quarter, there are many design opportunities for exploration. Advancements are constantly shaping the way we work, design, and create healthy spaces. Next month, we are focusing on how to be more human-centered. Stay tuned!

## Casket Co. to Design Corp.

*Did you know...*

K2M Design Cleveland is the former home of Cleveland Casket Co. updated in the early 2000s for use as an office, K2M (at the time mbi|k2m architecture) purchased the building with an emphasis on saving as much of the original building as possible. Details which can still be seen and heard today.



1954  
3121 Bridge Ave. ... The southeast corner of W. 32nd and Bridge Ave  
The Cleveland Casket Co.  
Mike Kleo photo collection

Scott Maloney spoke to Crain's Cleveland Business at the time of the updates.<sup>5</sup> The renovations were aimed to meet a LEED silver rating with a concerted effort in sustainability. Original floors and former wide open shop floors were left intact, reducing the amount of materials going to landfill.

<sup>1</sup> DEQ.virginia.gov

<sup>2</sup> Architizer, Hannah Feniak, Managing Editor

<sup>3</sup> epa.gov/brownfields

<sup>4</sup> Mike Kleo photo collection

<sup>5</sup> Crain's Cleveland Business, Stan Bullard