KI WALL



ARCHITECTURAL WALL, PODS, + SYSTEMS

Environmental Stewardship Through Sustainable Solutions

Nathan Quintal
Senior Product and Marketing Manager, KI Wall

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KIWALL.COM



INTRODUCTION

KI Wall has always embraced sustainable building initiatives by executing thoughtful designs through an environmentally friendly manufacturing process. KI Wall provides maximum reassurance through its material selections, local shipping, waste management, and focus on health and well-being.

The importance of sustainability goes far beyond architectural walls. The entire construction industry is being challenged to adapt to new environmental regulations. For example, Vermont law (10 V.S.A. § 6605m) requires projects over a certain size to recycle leftover materials like plywood, clean wood, and scrap metal. Disposing of these items in a landfill can result in fines. These challenges have dramatically reduced landfill opportunities for solid waste like gypsum wallboard, the most common wall material used in construction projects. Post-demolition wallboards cause more difficulty for recycling facilities because they're more likely to be contaminated by finishes such as paint or wallpaper. Additionally, they often contain nails and other fasteners. Using movable walls minimizes the creation of such waste, allowing organizations to save on the excessive cost of debris disposal created by conventional drywall construction. This, in turn, reduces the negative impact on the earth's environment.

Equally smart is the judicious use of architectural walls in supporting 21st-century remodels and renovations of older buildings, eliminating the need for expensive infrastructure to accommodate technology that might compromise classic aesthetics or overall function.

The innovation of WiggleRoom super structures, represents a significant advancement in preserving historical integrity while modernizing spaces. These freestanding units offer a unique solution that respects the past, allowing for quick and efficient updates to historic buildings. The ability to install turnkey rooms complete with ceilings, lighting, and ventilation systems in a matter of days, without affecting the existing architecture, is a testament to the thoughtful design and engineering behind these structures. It's a harmonious blend of old and new, ensuring that history is preserved and celebrated in contemporary use.

KI Wall continues to drive forward as a sustainable organization by working toward reducing the embodied carbon in its products. The organization has established clear sustainability objectives, tracks progress, and regularly reports on its advancements.

KI Wall also continuously maintains Life Cycle Assessments and Environmental Product Declarations and works to calculate and evaluate its carbon footprint.

By 2025, KI Wall will reduce its annual landfill waste and energy consumption levels by 25 percent compared to the levels recorded in 2017.

12.6
Million Tons
of gypsum waste was generated by the U.S. in 2018

or 2.1% of the total C&D debris generation

2.2
Billion Tons
of construction waste is expected by 2025

145
Million Tons
of construction and demolition waste filled U.S. landfills in 2018

only
3.8
Million Tons
were recycled in 2018

or 30% of total recyclable materials

The average amount of gypsum discarded each year is the equivalent of:

24 lbs
per person

120
bananas

12 gallons of water



KI WALL SUSTAINABILITY POLICY AND STRATEGY

Sustainability is important to KI Wall, which is why it supports green building standards such as LEED, Living Building Challenge, or WELL Building certifications. The team collaborates with each customer to understand sustainability goals and targets in these sustainable building programs.

Key elements that can help satisfy the criteria for the various certifications include the following:

MATERIAL SELECTION:

- **Eco-Friendly Recycled Content**. KI Walls are designed for optimum sustainability with substantial levels of recycled content, including recycled aluminum, glass, steel, fabric, PET (recycled water bottles), and post-consumer recycled denim insulation.
- **Highly Recyclable.** KI Wall meets industry standards for recyclable/reusable panels and components at 97 percent and 99 percent, respectively. Aluminum, steel, and glass are easily recyclable in walls that feature these materials. Wherever mixed materials are used, the recyclable materials should be easily separated with minimal waste.
- **Bio-Based: Certified Wood.** Certified wood can be specified for architectural wall doors and trim. Certified wood wall options can be applied to wood veneers and particleboard/fiberboard materials.
- **Packaging Materials:** Packaging used to ship products is reusable or recyclable. Examples include:
  - Foam material used between door frames is a polyethylene #2 plastic made from recycled materials and is 100 percent recyclable and reusable.
  - Metal and plastic banding used in the packaging is 100 percent recyclable.
  - Corrugated packaging and inserts are 100 percent recyclable and contain an average of 78 percent recycled content.

CIRCULAR ECONOMY:

- **Landfill Reduction and Construction Waste Management.** The versatile product offerings from KI Wall make it quick and cost-effective to evolve space with minimal demolition and landfill disposal. No carpet cuts, ceiling tile cuts, and framing or drywall offal mean minimal installation/renovation debris. Its pre-assembled construction also means less waste than "stick-built" products. For example, Lightline® is a unitized glass storefront product solution that can be easily moved and reconfigured without waste and with minimal labor.
- **Regional Materials.** Whenever possible, KI Wall sources materials regionally and/or within the U.S. to reduce the environmental impact of long-distance transportation and shipping while supporting the domestic economy.
- **Building Reuse.** Whether it is interior nonstructural elements or existing walls and floors, KI Wall helps extend the lifecycle of existing building materials. Our products are uniquely designed for multiple reconfigurations using continuous ceiling planes, resulting in non-invasive installation while eliminating drywall waste. This allows virtually 100 percent reuse of existing ceilings. Moreover, KI Wall products are designed for easy disassembly to reduce the carbon footprint of new construction, renovations, and future changes.
- **Resource Reuse.** Quality architectural walls are designed for maximum life and non-obsolescence. Current-generation products are designed to work seamlessly with previous generations. This includes designing products to accommodate easy field refurbishment. For example, removable panel shells allow for simple repairs like updates to power and data or finish changes. KI Wall's minimal kit of parts translates into fewer resources used in manufacturing, which also greatly reduces the time and labor required for installation and reconfiguration.

HEALTH AND WELL-BEING:

- **Indoor Air Quality.** Using the right architectural walls can help reduce indoor air quality issues. Built and finished offsite, the pre-assembled modular design eliminates the onsite dust, debris, and emissions common to traditional construction and reconstruction. In addition, KI Wall products meet requirements for ANSI/BIFMA (M7.1/X7.1-2011 R2021) and conform to the CDPH/EHLB Standard Method (CA 01350) v1.2-2017 for the open plan. They also meet LEED, WELL, and LBC Low Emitting Materials for Furniture requirements. This certifies that walls pass strict testing guidelines for acceptable indoor air quality levels in sensitive environments such as those with young children and healthcare environments.
- **Enhanced Acoustical Performance.** Architectural walls play a crucial role in maintaining a peaceful environment. The satisfaction of an occupant in any given space is heavily influenced by the acoustical comfort provided. To ensure optimal health and well-being, it's important to choose demising walls that meet the acoustical comfort parameters. Look for solid panel applications that have an STC of 44-50, which surpasses the acoustical performance of insulated drywall construction and other architectural wall systems. For storefront applications, glass walls with an STC range of 36-41 are ideal.
- **Daylight and Views.** KI Wall products make it easy to connect indoor spaces with the outdoors, providing an enhanced sense of well-being. With virtually unlimited glass options, movable walls can be designed to include glazing materials that preserve both daylight and views. Thoughtful design, variation of panel heights, selection of vision glazing, incorporating transoms, use of negative space, and proper orientation in workspaces help provide access to daylighting and preserve view corridors.

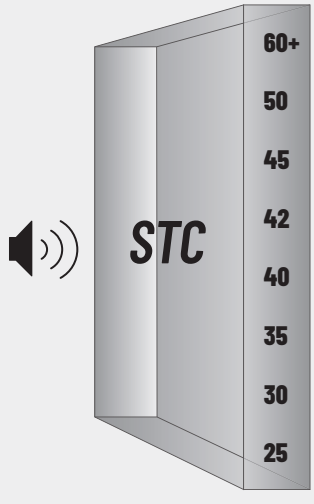
TRANSPARENCY:

- **Responsible Materials.** KI Wall products have developed a baseline for transparency, sustainable extraction, support of local industry, and waste diversion for all projects. KI Wall evaluates both product materials and manufacturing processes by completing a chemical evaluation for transparency. These processes and certifications allow KI Wall to provide products that are free of toxins and harmful chemicals.
- **Life Cycle Assessment/Environmental Product Declaration.** Product-specific Type III EPD is internally reviewed or third-party verified to comply with ISO 14071. Products with product-specific internal EPDs that conform to EN 15804, ISO 14025, or ISO 21930 and have at least a cradle-to-gate scope to include Global Warming Potential and Embodied Carbon for future reductions.
- **Operational Performance.** KI Wall continues to seek opportunities to address its environmental impact by reducing the overall embodied carbon of our business. Environmentally focused cross-functional KI Wall teams assess and implement energy efficiency strategies. To further reduce its operational carbon footprint, KI Wall reduces energy emissions with a solar array in the Design Center and through the purchase of Green-e® certified renewable energy credits (RECs). KI Wall further offsets the impact of its operations through recycling and waste diversion programs.

SOUND TRANSMISSION CLASS (STC)

THE ABILITY TO BLOCK SOUND:

¼" Clear Tempered Glass	31
¼" Clear Laminate Glass	35
½" Clear Tempered Glass	36
4" Drywall Wall w/ 1 Sheet of 5/8" Gypsum on Each Side	36-42
½" Clear Laminate Glass w/ Acoustic Interlayer	39
Double Glazed w/ ¼" Laminate Glass	41
KI Wall Solid Panel	44-50
4" Face Brick, Mortared Together	45
6" Lightweight Concrete Block, Two Coats of Paint Each Side	46
8" Dense Concrete Block Wall, Two Coats of Paint Each Side	52
Double Layer of Gypsum Wall Board, Both Sides, 3 5/8" Metal Studs, 3" Sound Attenuation Blanket	54



Superior Soundproofing
- Most sounds inaudible

Very Loud Sounds
- Faintly heard

Loud Speech
- Not audible

Loud Speech
- Audible as a murmur

Loud Speech
- Onset of "privacy"

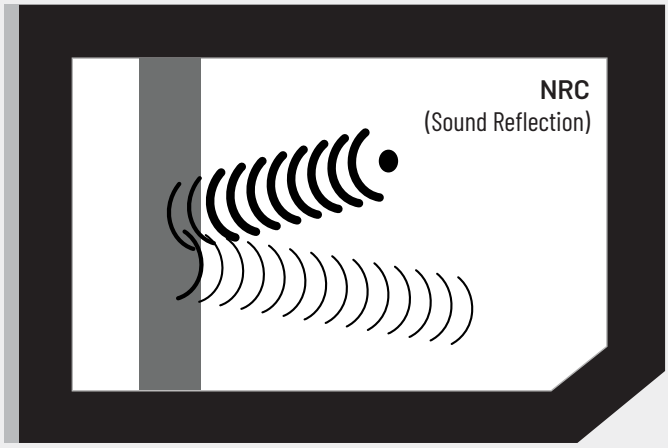
Loud Speech
- Audible not not intelligible

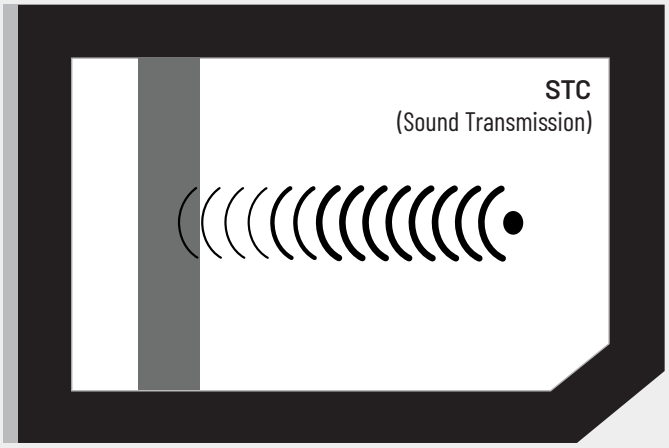
Loud Speech
- Can be understood

Normal Speech
- Can be understood

STEWARDSHIP, SUSTAINABILITY, ARCHITECTURAL WALLS, PODS, & SYSTEMS

KI Wall helps organizations meet their present needs without compromising the ability of future generations to meet their own needs—the very definition of sustainability. KI Wall emerges as an exceptional choice for emphasizing sustainability when selecting architectural walls or pods for a project. KI Wall excels in using sustainable materials, fostering a circular economy by sourcing materials regionally and enhancing health and well-being through acoustic performance and improved indoor air quality. Opting for KI Wall not only reflects an environmentally conscious choice but also an investment in a product that positively impacts occupants' well-being and the environment. KI Wall embodies a comprehensive sustainable design approach, positioning it as a premier option for eco-conscious projects.







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KI WALL

1330 Bellevue Street
Green Bay, Wisconsin 54302
800.424.2432 / kiwall.com

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