

Cost Savings & Availability Make Concrete Masonry Ideal for Demanding Building Applications

The coronavirus pandemic was filled with unexpected consequences. In addition to either delaying or shuttering construction projects nationwide, few foresaw the inevitable spiking costs and shortage of building supplies that stalled the entire marketplace.

Unfortunately, many suppliers and millworks simply stopped producing materials in anticipation of the reduced demand that never materialized. A problem that proved doubly troublesome for the American lumber industry, which was already suffering from the rash of wildfires that consumed forests across the American Northwest and ongoing insect infestation that's plagued Canada for the past decade.

In fact, the U.S. Chamber of Commerce Commercial Construction Index (CCI) found earlier this year that more than 30% of the contractors surveyed experienced a shortage of structural lumber during the 4th quarter of 2020. <https://www.uschamber.com/press-release/less-availability-of-building-materials-emerges-significant-pandemic-challenge> As for pricing, the National Association of Home Builders estimated that the cost of lumber increased more than 300% over the past year alone, <https://www.wzzm13.com/article/news/lumber-shortage-rising-prices-cause-issues-in-the-construction-industry/69-5624c6f9-5dfe-4000-b116-5bf578d847f2> while the Associated General Contractors of America reported a far more modest 85.7% jump in lumber prices between April 2020 and 2021. <https://www.businessobserverfl.com/article/from-home-improvement-to-home-building-shortages-causing-major-delays-and-cancellations-for-builders-and-contractors>

As a result, concrete block has increasingly displaced wood framing as the material and method of choice among many builders, contractors, developers and owners. This is due not only to its availability, but also the superior ability of masonry to improve the strength and structural integrity of buildings with better moisture, pest and fire resistance. It also reduces the costs of everything from maintenance to insurance premiums. All important benefits to environments that have plagued by wildfires, floods and severe weather events like hurricanes and tornadoes.

Growing resiliency and fire concerns

These natural disasters have created urgent concern about long-term building durability. According to the National Centers for Environmental Information, the top five storm-related disasters in 2018 and 2019 alone combined to cause more than \$75 billion in damage. (<https://www.waterdamageadvisor.com/storm-damage/statistics/>) A recent

study by the National Interagency Fire Center (NIFC) also found that the wildfires, heat waves, and droughts suffered throughout the U.S. from 2017 to early 2018 produced \$12.33 billion in insured losses. https://content.naic.org/cipr_topics/topic_wildfires.htm

To combat these environmental challenges, concrete block masonry is now being increasingly designed into building construction for durability and longevity. That's because high-end concrete masonry units (CMUs) are typically designed with a proprietary mix of cement, aggregates and integral water repellents to ensure durability even under the harshest conditions.

Enhanced insurance values with concrete masonry

Other large market carriers have reduced the builder's risk insurance rates for the multi-residential structures constructed with concrete masonry and precast floors/ceilings as opposed to wood frames. For example, in Dallas a combined builder's risk and general liability insurance policy was 40% less for buildings designed with resilient concrete masonry. These savings were compounded even more when considered that the property insurance was 2.5 to 3 times higher for structures using wood instead of concrete masonry. In other major locales like Charlotte and Atlanta, the cost advantages were even greater and included a whopping 50% reduction in the combined builders risk and general liability insurance policies of buildings that used resilient concrete masonry rather than wood.

Forbes also sounded alarm bells for insurance costs, reporting that "renewal increases have jumped 20% year-over-year, according to Q3 2020 data from Marsh's Global Insurance Market Index, a measure of global commercial insurance premium pricing." [Why Real Estate Insurance Premiums Are On The Rise—And What Owners Can Do To Prepare \(forbes.com\)](#) Even the rates for clean accounts were expected to rise from the high single digits to the 15% range per the Risk Placement Service (RPS) 2021 U.S. Property Market Outlook. <https://www.insurancebusinessmag.com/us/news/breaking-news/property-insurance-costs-to-keep-rising-in-2021--report-244695.aspx>

As a result, contractors, property owners and developers have all increasingly turned toward concrete masonry to help defer their commercial insurance premium costs. In some areas, insurers have even offered a 5 percent discount to the property owners in fire-prone areas who participate in the National Fire Protection Association's Firewise program, which was introduced to help people avert the catastrophic effects of wildfires.

With the widespread devastation of wildfires, it's simple math: as carrier profits are down, payouts have risen significantly. Over the past year, more than 800 wildfires

scorched 6 million acres of Midwestern U.S. land. Researchers at Risk Management Solutions (RMS), a U.S.-based risk management company, estimated that the fires in California, Oregon, Washington and Colorado alone cost insurers \$7 billion to \$13 billion in 2020. <https://www.reuters.com/article/us-usa-wildfires-insured-losses-trfn-idUSKBN28P2NQ>

Concrete's Added Performance and Long-Term Benefits

The May 2021 Addendum to the *Initial Cost of Construction Multi-Residential Structure* study of the Pennsylvania Concrete Masonry Association even cited the insurance's industry's recognition of a "relative risk differential between wood construction materials and the other materials used in this study." Highlighted was that "materials like concrete masonry, precast concrete, and cast-in-place concrete have many other advantages beyond their inherent fire performance including resistance to mold growth, resistance to damage from vandalism, and minimal damage caused by water and fire in the event of a fire in the building. In many cases, with this type of construction the damage outside of the fire compartment is minimal. This provides for reduced cleanup costs and quicker reoccupation of the structure."

Construction and insurance cost savings, durability and longevity are critical benefits owners, developers, contractors and architects are currently realizing from buildings designed with concrete block and masonry. The unfortunate consequences of global climate change aren't likely to diminish any time soon. Most reports even predict the growing intensity and consistency of devastating events ranging from hurricanes and flooding to wildfires and mudslides through the end of the century.

But there are steps the construction industry can take now while society and science continues to work towards the future. As defined by the Resilient Design Institute, resiliency embodies "the capacity to adapt to changing conditions and to maintain or regain functionality and vitality in the face of stress or disturbance." As most know and more are learning every day, masonry CMUs certainly check all the boxes related to this definition. Learn more at www.EchelonMasonry.com

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