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INSURANCE RATE COMPARISONS, BREWERY¹

There are many factors that go into deciding what type of structural system is best for a new building. Among these is the owner's cost of insurance. Insurance costs vary from location to location based on the local hazards and codes, by the use the building will serve, and by the structural system chosen. This bulletin explores the differential cost of an annual insurance premium based on the type of construction of the structure.

In early 2023, MBMA conducted a study to compare the rates to insure two nearly identical buildings for a brewery; the first was a metal building system (noncombustible ISO Construction Class 3) and the second was a concrete tilt-up structure (noncombustible ISO Construction Class 4).

The hypothetical buildings were presented to an insurance company to obtain the cost to insure each structure. The occupancy (use), location, size and floor plans are identical (Figure 1).

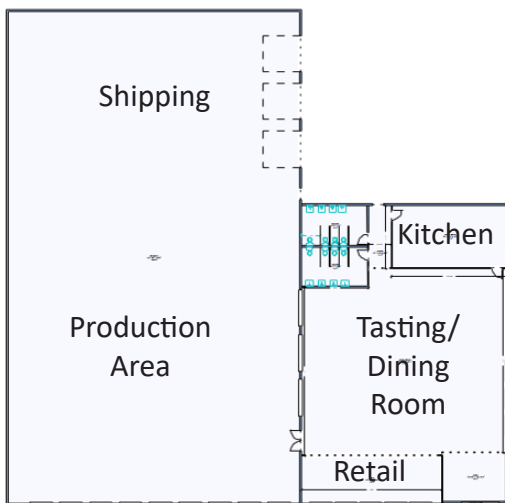


Figure 1: Conceptual design of the brewery building for the study.

The subject building was configured as a 15,100-square-foot mixed-use brewery (production area and public tasting/dining area). The production area has a 25-foot exterior wall height, while the public

¹The Metal Building Manufacturers Association (MBMA) provides these insurance bulletins as informational guides. The information contained in these bulletins is general in nature and is not intended to serve as legal advice. Readers are advised to consult with their own counsel and/or insurance broker on matters specific to them.

Insurance Costs

Any rates used herein are for comparison purposes only and should not be treated as actual rates that might apply within any rating jurisdiction.

The rates quoted are reflective of a snapshot in time (first quarter 2023), at a specific location, and from a single insurance company.

Insurance rates are periodically adjusted to reflect the actual cost of material and labor necessary to repair or replace a damaged structure.

Premiums charged may increase if additional risks are discovered or hazards increase (e.g., the use of the building changes). They may decrease as well if, for example, the rating of the fire department improves.

Rates may also be adjusted for strategic business reasons and are influenced by the business goals of the insurer. Insurers may set rates somewhat lower for regular customers or types of buildings that they have decided to pursue as a matter of business strategy.

It is recommended that prior to construction an insurance agent or broker be contacted regarding prevailing rates for your specific project and location. Estimates for insurance costs can be provided during the initial design phase of construction.

area has 15-foot exterior wall height. The public area of the building contained a foyer, tasting/dining area, commercial kitchen, retail space and restrooms. The production area contained production, storage, shipping /receiving, offices, restrooms and a breakroom. The hypothetical building was located in Charlotte, North Carolina, to avoid hurricane, flood and wildfire risks, which can significantly impact insurance rates.

As explained in **MBMA INSURANCE BULLETIN NO. 7 – “The Effect of Occupancy on Insurance Rates”** the occupancy of the structure results in different rates, and in this case a brewery occupancy is considered a special risk that only a limited number of companies will insure. Considering the specialized use of the building, the insurance cost analysis conducted on the structure did not include the specialty brewery production equipment, kitchen equipment or any public area furnishings.

This analysis provides estimated costs that a developer would incur for providing the basic structure (structural system and building envelope) with metal stud interior walls and stock finishes (drywall and paint) as well as fixtures (mechanical, electrical, plumbing and fire protection). In the case of the metal building system the envelope included a low-slope metal roof and metal wall panels. The concrete tilt-up’s envelope included a flat roof deck with a single-ply membrane and concrete tilt-up wall panels.

Insurers consider this mixed-use building as a combination bottling plant/bar or lounge while the International Building Code (IBC) considers its occupancy classification as a mix of A-2 assembly, for the public area, and Group F-2 low-hazard factory and industrial for the production area.

The insurance policy requested for the comparison study was a Commercial Property Insurance policy, which protects a business property (building) from loss or damage from environmental forces, such as hail, lightning, fire, smoke and wind.

When comparing metal building system insurance rates with the rates for other construction types, it is important to make sure that all other conditions are equal and that the same type of insurance policy and coverage limits have been selected.

The comparison scenarios in the study included, one for the metal building system and one for the concrete tilt-up system (Table 1).





Table 1: Comparison of the Reconstruction Costs (Insurance Valuation²) by Building Construction Type for 15,100 sq ft Mixed-Use Brewery

	Metal Building System	Concrete Tilt-Up System	Metal Building System Savings
Structure Replacement Cost: Production Area	\$1,142,500	\$1,354,600	\$212,100
Structure Replacement Cost: Public Area	\$946,400	\$1,034,700	\$88,300
Structure Replacement Cost: Total Building Reconstruction	\$2,088,900	\$2,389,300	\$300,400
Reconstruction Cost per sq ft	\$138	\$158	\$20

² Quoted first quarter 2023.

The cost to insure a structure is based on the cost to rebuild it should it be destroyed. The first step in determining the premium an insurance company will charge is to determine the insurance valuation (IV) of the building, the cost to rebuild. This study showed that the insurance company calculated a lower cost (87%) to rebuild the metal building system structure than to rebuild the concrete tilt-up system structure.

While more affordable to build, the metal building system structure is slightly more expensive to insure, at \$0.37 per square foot versus \$0.35 for the concrete tilt-up building. This equates to about a \$200 per year difference in the cost of the premium.

The size and cost of this building would make it eligible for a Small Business Administration loan with an interest rate of 6% (as of the time of this report). Assuming a down payment of 20% made for each type of structure, the estimated principal and interest for the concrete tilt-up structure loan would be \$1,440 *per month* more than that for the metal building system structure. *This means that the \$200 additional annual cost of insurance would be offset in the very first month of paying the mortgage.*





ISO (formerly the Insurance Services Office) is an insurance advisory organization that provides statistical and actuarial information to insurance companies. ISO is a wholly-owned subsidiary of Verisk.

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