

An **unreinforced masonry building** (or **URM building**) is a type of building where load bearing walls, non-load bearing walls or other structures, such as chimneys are made of brick, cinderblock, tiles, adobe or other masonry material, that is not braced by reinforcing material, such as rebar in a concrete or cinderblock. The term is used in earthquake engineering as a classification of certain structures for earthquake safety purposes, and is subject to minor variation from place to place.

URM structures are vulnerable to collapse in an earthquake. One problem is that most mortar used to hold bricks together is not strong enough. Additionally, masonry elements may "peel" from the building, and fall onto occupants or passersby outside.

In California, construction of new unreinforced masonry buildings was prohibited in 1933, and state law (enacted in 1986) required seismic retrofitting of existing structures. Retrofits are relatively expensive, and may include the building being tied to its foundation, tying building elements (such as roof and walls) to each other so that the building moves as a single unit rather than creating internal shears during an earthquake, attaching walls more securely to underlying supports so that they do not buckle and collapse, and bracing or removing other unsecured decorative elements. Retrofits are generally intended to prevent injury and death to people, but not to protect the building itself.

According to the 2006-04 California seismic safety commission report, there are still 7800 URM buildings with no retrofitting in the state, 1100 in the city of Los Angeles.

The California law left implementation and standards, up to local jurisdictions. Compliance took many years. As of 2008, most (but not all) of the unreinforced masonry buildings have undergone retrofitting.

There is particular cause for concern in regions which can generate strong earthquakes, but only rarely. Such regions may not have regulations limiting the construction or have only implemented them recently. Public awareness of earthquake safety may be low. For example, the Wasatch Fault in the U.S. state of Utah closely parallels the state's most populous metropolitan area, the Wasatch Front (which includes the state capital Salt Lake City). The Wasatch Front has a population of 2 million, and contains 200,000 URMBs compared with the entire state of California's 25,000. Utah has recently retrofitted many public URMBs to better withstand earthquakes, but most URMBs in the state are private homes.

The lack of earthquake codes preventing the construction of URMBs was a major factor in the high death toll in the 2010 Haiti earthquake.

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