

Surviving the Storm – Are You READY?

What if you and your loved ones could reach a safe and secure place without having to leave the sanctity of your home?

What if you could reduce your family's exposure to high winds and flying debris, lightning or other storm conditions when you are unable to evacuate the area?

What is a Safe Room?

FEMA's definition is a "hardened" room that is intended to provide a space of refuge. It must be a "room within a room" – its walls, ceiling and floor must be structurally separate from the rest of the house, so that even if the surrounding house is destroyed, the safe room will remain intact.

Following FEMA's guidelines and criteria, you can expect "near absolute" protection from winds and debris during a storm with winds as high as 250mph. **Research has shown that you can't get this kind of protection from anything other than reinforced concrete construction.**



Why a Quad-Lock Safe Room?

With Quad-Lock walls and Quad-Deck floors and roofs, you can build a completely integrated, "hardened room".

A Quad-Lock safe room can easily be integrated into any new home design. Or, you can retro-fit into your existing home.

A safe room can be a multi-functional space in your home, like a home theater, a wine cellar or a secure place for your possessions.

Where is the best location for a Safe Room?

A small interior room above grade. The purpose of a shelter is to provide a safe place where you and your family can survive with little or no injury. It should be easily accessible from any part of your home. Safe rooms can also be used for other non-emergency purposes.

Quad-Lock ICF construction provides:

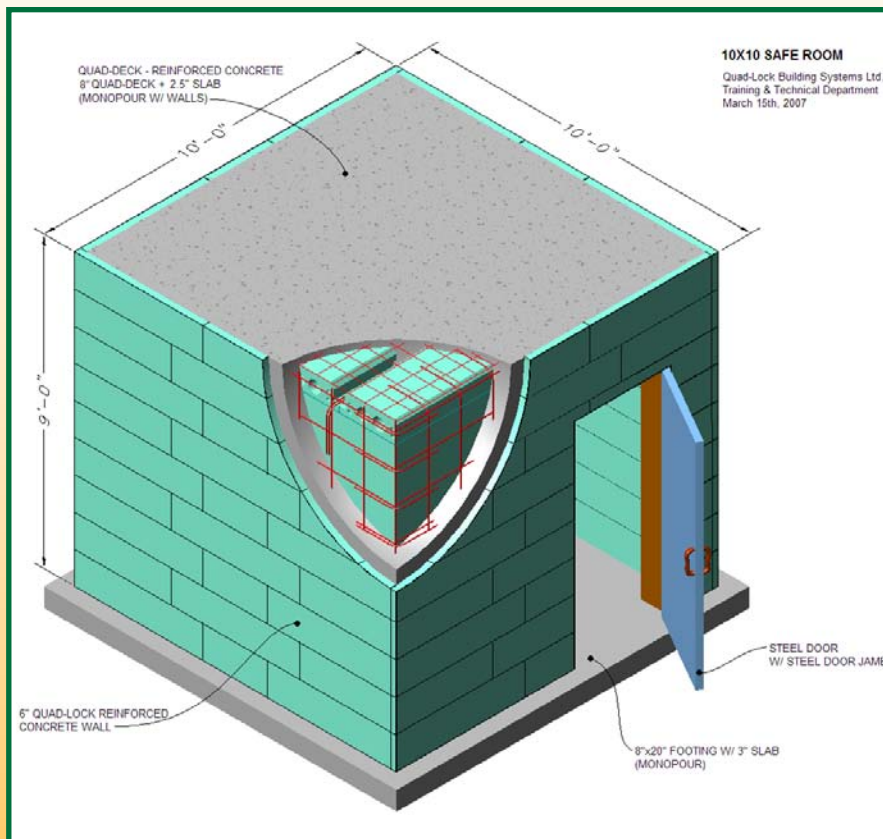
- **Impact Resistance** – reinforced concrete walls can withstand the impact of debris traveling at over 100mph with no structural damage
- **High Sound Reduction Ratings** – STC50+
- **High R-Values** – concrete's thermal mass ensures temperature moderation
- **High Fire Rating** – up to 4 hours



Photos courtesy of FEMA

Quad-Lock: The Most Versatile & Comprehensive Building System —

- **Uncomplicated Design:** Quad-Lock's building system allows you to design and work to any 2" increment – build around lintel or column reinforcements, rebar, anything.
- **Unrivaled Versatility:** Quad-Lock offers forms with true R-Values of 22, 32 and 40, ten wall configurations, walls of any desired width, angles of any degree, curves, bracing, attachment accessories, waterproofing and stucco systems.
- **Unmatched Integration:** With Quad-Deck you can create a concrete flooring and roofing system that provides a complete concrete envelope.
- **Unequaled Support:** Quad-Lock provides nationwide, on-site training. Our strong Dealer network provides local assistance and inventory. Quad-Lock's head office compliments its field offices with strong engineering and training talents.
- **Unmistakable Commitment:** Quad-Lock's product development team works with our customers to bring timely, field-tested products to market. Quad-Lock is the only ICF manufacturer who is certified ISO 9001:2000 and is one of the few ICF companies to manufacture their own product.



Safe Room Considerations:

- Safe room must be adequately anchored to resist overturning and up-lift.
- Walls, ceiling and doors of the shelter must withstand wind pressure and resist penetration by wind-borne objects and falling debris.
- Connections between all parts of the safe room must be strong enough to resist high-velocity winds.
- Sections of either interior or exterior residence walls that are used as walls of the safe room, must be separated from the structure of the residence so that damage to the residence will not cause damage to the safe room.

You May Be Eligible:

Homeowners who receive a disaster assistance loan from the U.S. Small Business Administration (SBA) to repair or rebuild a damaged or destroyed home may use some of the loan proceeds to construct a safe room. **The SBA can also increase the approved disaster loan by up to 20 percent to cover the cost of adding a safe room.**

For more information on Fema 320, you can download the complete "Taking Shelter from the Storm: Building a Safe Room Inside Your House" document from the FEMA website at <http://www.fema.gov/plan/prevent/saferoom/fema320.shtm>. For more information on Impact Testing, you can download PCA's Technology Brief No. 7 "Concrete Homes Built-in Safety" at <http://www.cement.org/bookstore>.