Resources for Repairing, Retrofitting and Rebuilding After a Tornado

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Like all natural disasters, tornadoes can end up causing massive destruction to homes, property and infrastructure. Typically, tornadoes cause the greatest damage to structures of light construction, including residential dwellings and particularly manufactured homes.

Mitigation measures are available to improve personal safety and reduce or eliminate the risk of future damages to structures and personal property. FEMA building specialists can give you information on how to repair, retrofit, or rebuild your home to be safer and stronger before the next disaster.

Mitigation Topics to Consider

Roof Design

Roof failures are a common cause of major damage to buildings and their contents from high winds. There are mitigation measures that can be taken to reduce potential roof damage.

These mitigation measures include:

- Designing Wind-resistant Roofs
- Reinforcing Gable Roof Ends
- Securing Sheathing Properly
- Installing Shingles Properly

Breach Points

Exterior doors and windows are the weakest parts of a structure’s outer shell. If they are broken or blown in, high winds can enter a structure and create internal pressures which act on the roof and walls, resulting in serious damage. Once the structure is breached, wind, debris, and rain can damage the interior of the

structure or injure any person inside.

Breach point mitigation measures include:

- Reinforcing Garage Doors
- Securing Double-entry Doors
- Installing Impact-resistant Glass

Local Building Officials

Always check with local building official before beginning any repairs or rebuilding because:

- Building codes, permits, inspection requirements, and zoning ordinances may be involved.
- A floodplain ordinance will affect rebuilding when the structure has sustained substantial damage and is situated in a floodplain.

Building officials will reinforce the point that only licensed professionals are qualified to perform structural repair or structural mitigation work.

Email a Specialist

If you are unable to call, email your questions, comments, or issues to FEMA-ARMit@fema.dhs.gov to receive a written response from a Specialist.

Speak to a Specialist

Call 833-FEMA-4-US or 833-336-2487 to speak to a Mitigation Specialist about your needs, experiences, and how you can repair, retrofit, or rebuild safer and stronger.

- Available Monday through Friday, 8:30am to 4:30pm CDT.
- Not available when you call? Leave a message and a Specialist will return your call within 24 hours.

Online Resources

- Visit https://fema.connectsolutions.com/armit/ to look through various publications for useful information to use when making repairs, retrofits, and

rebuilding.

- Building Science Resources After an Extreme Wind Event FEMA Building Science Resources to Assist with Reconstruction after an Extreme-Wind Event.
- Improving Windstorm and Tornado Resilience: Recommendations for One- and Two-Family Residential Structures A brief overview of building improvements to reduce damage to wood-framed, one- and two-family residential structures when impacted by tornadoes rated on the Enhanced Fujita (EF) Scale as EF2 or less intensity, and indirectly by tornadoes with a greater EF rating.