

STORMDEFENDER™ DOOR BY CORNELL

Model PSD361 and Model PRSD361 (fire-rated)

ICC 500, SAFE ROOM DESIGN, AND ROLLING DOORS — HOW THEY WORK TOGETHER

Simply put, ICC 500 identifies where safe rooms are mandatory and how they must be constructed. Here's a few points to remember:

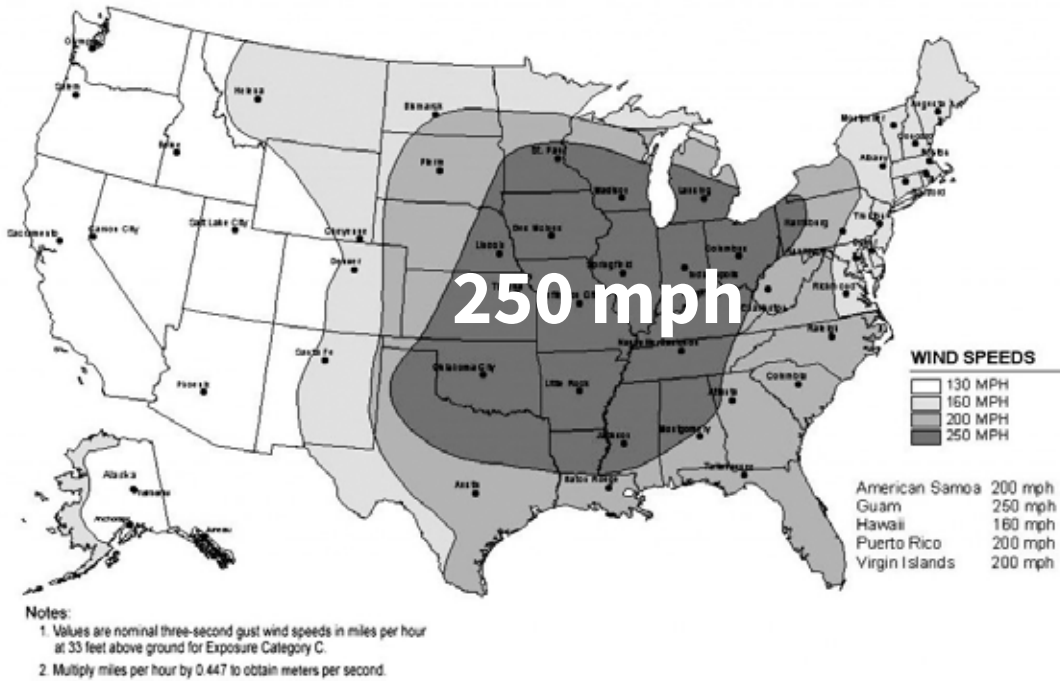


FIGURE 304.2(1)
SHELTER DESIGN WIND SPEEDS FOR TORNADOES

FEMA P-361, Third Edition / March 2015; Figure B3-1

TORNADO ALLEY IS REQUIRED

States that have adopted 2015 edition (or newer) edition of the International Building Code must build safe rooms (designed in accordance with ICC 500) in certain building types located in the 250mph zone reference above. The building types are:

- ▶ 911 call stations
- ▶ Emergency operations centers
- ▶ Fire, rescue, and ambulance stations
- ▶ Police stations
- ▶ K-12 school buildings with a capacity of 50 or more occupants, with certain exceptions.

WHAT ARE THE DOOR REQUIREMENTS?

Any type of door used in a tornado storm shelter must be able to withstand 100 MPH impact with a 15 pound 2x4, and withstand 250 MPH wind speeds. Any type of door used in a hurricane storm shelter must be able to withstand a 110 MPH impact with a nine pound 2x4, and withstand 200 mph wind speeds. These must be tested and certified by a third party agency.

WHAT IS THE SAFE ROOM GOAL?

Keeping occupants safe is the obvious goal, but ICC 500 Critical support systems must be functional for the minimum period of the safe room occupancy, which is 2 hours for a tornado and 24 hours for a hurricane —that’s because hurricanes last much longer than tornadoes.

HURRICANE AREA RECOMMENDED

While safe rooms aren't mandatory in hurricane prone areas, ICC 500 still provides a good guide on how to properly construct safe rooms to save lives. Check out the hurricane-prone area map here:



FUNDING IS AVAILABLE

- ▶ Originally, the Federal Emergency Management Agency (FEMA) created publication 361 (FEMA P-361) to provide guidance on how to best construct safe rooms. ICC 500 took much of that guidance and codified it, but FEMA P-361 is still important. Why? Because FEMA provides funding for safe rooms as a part of their pre-disaster mitigation and disaster relief program.
- ▶ Any project putting in for grant money needs to comply with not only ICC 500, but also FEMA P-361, which is more stringent. In 2018, \$235 million funds were earmarked for this program.

The StormDefender™ Door complies with ICC 500 and FEMA P-361 standards. The StormDefender Door can recess into the ceiling of typical storm shelter areas, allowing for more natural light and giving much more design freedom. For more information on the StormDefender Door and how it can meet stringent safe room codes while improving design options, visit cornelliron.com or call **800.233.8366** today!