



School Safety Monthly

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Standard of Care: Severe Weather

8 Steps to Plan for Tornado & High Wind Sheltering



Photos: Rachel Wilson & Chris Dorn



Standard of Care: Deciding When to Use Hallways as Storm Shelters

by Stephen Satterly Jr.



Photo: Rachel Wilson

While many schools have traditionally used hallways for storm sheltering, some hallways are not suitable due to large roof spans or exterior doors and windows. In other cases, a hallway may be the safest part of the school. A systematic process can simplify and improve your planning for severe weather.

Tornadoes are low-probability, high-impact events. In 2002, my elementary school narrowly missed a direct hit (by approximately 25 yards) by an EF3 tornado that devastated the neighborhood. In 2012, Henryville (IN) Elementary School and High School were nearly destroyed by a direct hit from an EF4 tornado. A tornado bearing down on a school is a nightmare for school administrators throughout this country.

Determining the areas to shelter students, to a standard of care established by the Federal Emergency Management Agency (FEMA), during a high wind emergency requires the participation of architects, engineers and first responders. Why do school officials need to spend precious staff time and in some cases money on laborious school safety efforts when schools can simply put students in the hallways and have everyone assume the "duck and cover" position?

The short answer is because, the lives of students and staff may depend on it. The long answer involves the importance

of meeting the standard of care should injury or death occur during a severe weather event.

On May 22, 2011, an EF5 tornado struck Joplin, MO, creating massive devastation, including destroying Joplin High School, and major damage to East Middle School. Footage from the high school CCTV system showed debris being blown along the hallways, prompting the superintendent of Joplin Schools to announce, "Joplin Schools no longer utilize hallways - period."

My intent is not to malign or impugn anyone involved in the Joplin tornado of 2011. The video of the hallways was terrifying, and one can understand why they chose not to use hallways for protection in the future. Part of this choice was that they needed to rebuild. The new buildings included shelters built to FEMA specifications - a choice not normally available to many existing schools.

The takeaway is that the unique design of each school should be considered when determining where the best

available shelter is. There are cases where hallways are the best available shelter areas for tornadoes because there are no exterior doorways or windows. In this hypothetical example, using another area could result in injury or death. School officials may then not be able to demonstrate that they have met the standard of care during litigation. As with other types of crisis events, care should be exercised before making dramatic changes based on any single catastrophic event. While there are times where this type of change may be appropriate, there are cases where this can be a tragic error.

To find the standard of care for sheltering in schools during a tornado, start with [Tornado Protection: Selecting Refuge Areas in Buildings FEMA P-431, Second Edition/October 2009](#). Detailed information is included in FEMA's Best Available Refuge Area Checklist (BARA), which is found in [FEMA's P-361, Safe Rooms for Tornadoes and Hurricanes: Guidance for Community and Residential Safe Rooms](#).



Standard of Care for Severe Weather (Continued)

Another source for standard of care comes from an article from the Storm Prediction Center at the National Oceanic and Atmospheric Administration (NOAA). Roger Edwards wrote [Tornado Preparedness Tips for School Administrators](#). In it, he says,

“Ultimately, the school administrators need to evaluate the time, space, traffic flow and coordination needed to direct the kids and staff into safe areas in an organized manner. That will need a customized drill which will vary from building to building.”

Tornadoes are terrible, unpredictable occurrences of nature. At the same time, however violent a storm gets, having the right preparation will increase chances of survival for building occupants, and will help defense efforts should litigation follow a severe weather event in spite of your efforts to protect staff and students.

-Stephen Satterly, Jr.

8 Steps to meet the standard of care for severe weather sheltering

1. Determine the maximum number of people needing shelter.
2. Decide where, in your building, the best available refuge is found using the BARA Checklist, [available from FEMA here](#).
3. Decide how to get the people in your building from where they are to the Best Available Refuge Area.
4. Write this process down and assign it as part of your school’s disaster plan.
5. Go over this plan with your local first responders.
6. Practice – and assume that individual staff may need to notify the office and initiate sheltering before a warning is received by the school or district.
7. Plan out what to do during the storm, and after, including how to communicate, triage and first aid, and maintaining accountability.
8. Identify the training your people will need to make the plan work, and get it for them.



Stephen Satterly, Jr. is a school safety specialist and adjunct analyst with Safe Havens International. He has served as a subject matter expert in tornado preparedness for a number of organizations including the American Clearinghouse on Educational Facilities. He has researched and written extensively on tornado preparedness in schools and was a school administrator of an elementary school that experienced an EF3 tornado near miss. He is a NWS trained weather spotter.

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Published by
Safe Havens International
[Chris Dorn](#).....Editor-in-Chief
[Rachel Wilson](#).....Editor & Art Director
[Stephen Satterly, Jr.](#).....Contributor



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