

Bloomfield RXIV Schools:

A Project to Provide Better Protection Against Earthquakes

The Bloomfield RXIV School District in Bloomfield, MO participated in a non-structural mitigation project with the State Emergency Management Agency and other partners. The effort began in 2010 and allowed the district to reduce—or mitigate—the potential effects a large earthquake would have on Bloomfield Elementary School.



Bloomfield is a community of nearly 2,000 people in Stoddard County, not far from the New Madrid Seismic Zone which juts through sections of Missouri’s Bootheel. The elementary school was built in 1946 and houses 400 students and teachers each school day. District superintendent Dr. Nicholas Thiele and safety coordinator Heather Mayo were among those who understood the importance of making the school safer in case of an earthquake.

Non-structural elements, as defined by the Federal Emergency Management Agency (FEMA), include every part of a building and all its contents with the exception of structural items such as floors, beams, columns, etc. At Bloomfield Elementary, vending machines, computers, and monitors were secured, some breakable glass was replaced, and safety messages were posted.

SEMA was able to make \$10,000 available to the district as part of a cooperative agreement with FEMA through the National Earthquake Hazards Reduction Program (NEHRP). Technical assistance was provided by Theodore A. “Ted” Pruess, P.E. of Larson Engineering of Missouri in St. Louis and Michael A. Reilly of WorkSafe Technologies in St. Charles.

These technical advisers, along with representatives from SEMA, conducted a preliminary site visit at Bloomfield Elementary School in October 2010 to look at tasks which could be addressed with these funds. District officials then developed a work plan and began the non-structural mitigation work. The project was completed the following fall and a successful final site visit was conducted in November 2011.

The Bloomfield RXIV School District was able to use a relatively small amount of NEHRP funds to address several non-structural concerns in its elementary school. This project will help protect lives and property which could be affected by a large earthquake and is an example of a successful partnership between federal, state and local officials, as well as representatives from the business community.

The back page shows some of the items addressed during this earthquake non-structural mitigation project.



Bloomfield RXIV Schools: Items Addressed in Earthquake Non-Structural Mitigation Project

- A seismic emergency gas shut-off valve was installed at the school's back exterior wall.
- Classroom monitors were secured with straps and CPUs secured with mats.
- Laminated safety glass was installed in trophy case and trophies were secured with museum gel.



- Library bookcases were hooked together with steel bars; books were secured with grip strip.
- Safety Coordinator posted earthquake/emergency response information for all to see.

- Evacuation maps were laminated and posted prominently.
- Aquarium was secured to the wall using large appliance straps.



- Hallway cabinets were secured with push cabinet latches.
- Soda machines in a hallway were secured to wall with large appliance straps.

What Can YOUR School Do To Be A Safer School?

All school districts that could be affected by an earthquake are encouraged to assess their buildings and non-structural elements to determine if action can be taken to reduce earthquake-related hazards. Many projects can be done easily and inexpensively and could save lives and protect property.

For more information on this project, contact the State Emergency Management Agency or the Bloomfield RXIV School District at (573) 568-4564.



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