

CHAPTER 1370
DEPARTMENT OF LABOR AND INDUSTRY
MANUFACTURED HOME PARK STORM SHELTER DESIGN

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1370.0100 PURPOSE.

The purpose of parts 1370.0100 to 1370.0361 is to provide minimum standards of design and construction of buildings to provide protection for manufactured home park residents from tornadoes and extreme winds.

Statutory Authority: *MS s 16B.59 to 16B.73; 326B.02; 326B.101 to 326B.151*

History: *12 SR 2251; L 2007 c 140 art 4 s 61; art 13 s 4; L 2008 c 337 s 64; 35 SR 1427*

1370.0110 SCOPE.

Parts 1370.0100 to 1370.0361 apply to buildings or portions of buildings that are designed for use as manufactured home park storm shelters.

Statutory Authority: *MS s 16B.59 to 16B.73; 326B.02; 326B.101 to 326B.151*

History: *12 SR 2251; L 2007 c 140 art 4 s 61; art 13 s 4; L 2008 c 337 s 64; 35 SR 1427*

1370.0120 DEFINITIONS.

Subpart 1. **Scope.** The definitions in this part apply to parts 1370.0100 to 1370.0361.

Subp. 2. **Storm shelter.** "Storm shelter" means a structure or portion of a structure designed in compliance with parts 1370.0100 to 1370.0361.

Subp. 3. **Dual purpose storm shelter.** "Dual purpose storm shelter" means a structure or portion of a structure designed for use as a storm shelter and also designed for other permitted uses.

Subp. 3a. **FEMA 361.** "FEMA 361" means the Design and Construction Guidance for Community Shelters, FEMA 361, July 2000.

Subp. 4. **Single purpose storm shelter.** "Single purpose storm shelter" means a structure designed for use only as a storm shelter.

Statutory Authority: *MS s 16B.59 to 16B.73; 326B.02; 326B.101 to 326B.151*

History: *12 SR 2251; L 2007 c 140 art 4 s 61; art 13 s 4; L 2008 c 337 s 64; 35 SR 1427*

1370.0130 APPLICABLE REQUIREMENTS.

Subpart 1. **Incorporation by reference.** "Design and Construction Guidance for

Community Shelters," FEMA 361, July 2000, published by the Federal Emergency Management Agency, Washington, D.C., is incorporated by reference except as amended by this chapter, and must be used to determine design loads for designing storm shelters. The document is not subject to frequent change and is available: (1) in the Minnesota State Law Library; (2) from the Printing and Publications Division, Federal Emergency Management Agency, P.O. Box 8181, Washington, D.C. 20024; and from the Minnesota Department of Public Safety, Division of Emergency Management, 85 State Capitol, Saint Paul, Minnesota 55155.

Subp. 2. Dual purpose storm shelters. A dual purpose storm shelter must comply with other applicable requirements of the state building code for its other intended uses.

Statutory Authority: *MS s 16B.59 to 16B.73; 326B.02; 326B.101 to 326B.151*
History: *12 SR 2251; L 1987 c 71 s 2; L 2007 c 140 art 4 s 61; art 13 s 4; L 2008 c 337 s 64; 35 SR 1427*

1370.0140 PLANS, SPECIFICATIONS, PERMITS.

Storm shelter plans, engineering calculations, diagrams, and other required data must be prepared by an architect or professional engineer licensed according to the Minnesota Board of Architecture, Engineering, Land Surveying, Landscape Architecture, Geoscience, and Interior Design laws and rules. For permit requirements, see chapter 1300.

Statutory Authority: *MS s 16B.59 to 16B.73; 326B.02; 326B.101 to 326B.151*
History: *12 SR 2251; L 2007 c 140 art 4 s 61; art 13 s 4; L 2008 c 337 s 64; 35 SR 1427*

1370.0150 SPACE REQUIREMENTS.

A minimum of four square feet per park resident must be provided within a storm shelter. The square footage of the storm shelter is determined by the total number of park residents. The total number of park residents is determined by the park owner, architect, or professional engineer and must be included in plans and specifications required by part 1370.0140. A ceiling height of not less than seven feet must be provided over 60 percent of the floor area.

Statutory Authority: *MS s 16B.59 to 16B.73; 326B.02; 326B.101 to 326B.151*
History: *12 SR 2251; L 2007 c 140 art 4 s 61; art 13 s 4; L 2008 c 337 s 64; 35 SR 1427*

1370.0160 REQUIRED EXITS.

Subpart 1. Exits; openings. At least two exits must be provided in compliance with chapter 10 of the International Building Code. The second exit from a single purpose storm shelter may have an opening of at least nine square feet with a minimum of 20 inches in width and the bottom of the opening not more than 44 inches from the floor.

Subp. 2. Disability access. At least one of the exits must comply with chapter 1341, Minnesota Accessibility Code.

Subp. 3. Exit to exterior. When a portion of a structure is designed as a

storm shelter, one exit must be directly to the exterior of the building or to an exit system complying with the state building code.

Statutory Authority: *MS s 16B.59 to 16B.75; 326B.02; 326B.101 to 326B.151*
History: *12 SR 2251; 23 SR 2042; L 2005 c 56 s 2; L 2007 c 140 art 4 s 61; art 13 s 4; L 2008 c 337 s 64; 35 SR 1427*

1370.0170 DRY INTERIOR.

Provisions must be made to construct storm shelters outside flood-prone areas and other nonwater ponding areas so that the interior of the storm shelter remains reasonably dry.

Statutory Authority: *MS s 16B.59 to 16B.73; 326B.02; 326B.101 to 326B.151*
History: *12 SR 2251; L 2007 c 140 art 4 s 61; art 13 s 4; L 2008 c 337 s 64; 35 SR 1427*

1370.0180 UTILITY LINES.

Only utility lines supplying the shelter with electricity, HVAC, plumbing, and telecommunications may be located in the shelter. The utility lines that supply the shelter must be underground and installed in accordance with the applicable chapter of the Minnesota State Building Code. The shelter must not be located over or under electrical transmission, distribution, or building services lines to other buildings.

Statutory Authority: *MS s 16B.59 to 16B.73; 326B.02; 326B.101 to 326B.151*
History: *12 SR 2251; L 2007 c 140 art 4 s 61; art 13 s 4; L 2008 c 337 s 64; 35 SR 1427*

1370.0190 [Repealed, 35 SR 1427]

1370.0200 ELECTRICAL POWER.

Underground electrical service must be provided to a storm shelter.

Statutory Authority: *MS s 16B.59 to 16B.73; 326B.101 to 326B.151*
History: *12 SR 2251; L 2007 c 140 art 4 s 61; art 13 s 4; L 2008 c 337 s 64*

1370.0210 ILLUMINATION.

Subpart 1. **Minimum illumination.** At least five foot candles of illumination must be provided at floor level inside the storm shelter and at exits.

Subp. 2. **Source.** An emergency lighting system must be supplied from storage batteries or an on-site generator installed in accordance with the requirements of chapter 1315.

Statutory Authority: *MS s 16B.59 to 16B.73; 326B.02; 326B.101 to 326B.151*
History: *12 SR 2251; L 2007 c 140 art 4 s 61; art 13 s 4; L 2008 c 337 s 64; 35 SR 1427*

1370.0220 [Repealed, 35 SR 1427]

1370.0230 SANITATION FACILITIES AND DRINKING WATER.

Sanitation facilities and water for drinking are not required for storm shelters.

Statutory Authority: *MS s 16B.59 to 16B.73; 326B.02; 326B.101 to 326B.151*
History: *12 SR 2251; L 2007 c 140 art 4 s 61; art 13 s 4; L 2008 c 337 s 64; 35 SR 1427*

1370.0361 FEMA 361.

Subpart 1. **FEMA 361 Chapter 1.** FEMA 361 Chapter 1, Introduction, is deleted in its entirety.

Subp. 2. **FEMA 361 Chapter 2.** FEMA 361 Chapter 2, Protection Objectives, is deleted in its entirety.

Subp. 3. **FEMA 361 Chapter 3.** FEMA 361 Chapter 3, Characteristics of Tornadoes and Hurricanes, is amended by deleting subsections 3.2.2, Hurricanes, and 3.2.3, Typhoons, in their entirety.

Subp. 4. **FEMA 361 Chapter 7.** FEMA 361 Chapter 7, Additional Considerations, is amended by deleting section 7.2, Seismic Hazard Conditions, in its entirety.

Subp. 5. **FEMA 361 Chapter 8.**

A. FEMA 361 Chapter 8, Human Factors Criteria, is amended by deleting section 8.2, Square Footage/Occupancy Requirements, in its entirety.

B. FEMA 361 Chapter 8 is amended by deleting Section 8.4, Lighting, in its entirety.

C. FEMA Chapter 8 is amended by deleting Section 8.5, Occupancy Duration, in its entirety.

D. FEMA Chapter 8 is amended by deleting Section 8.6, Emergency Provisions, in its entirety.

Subp. 6. **FEMA 361 Chapter 9.** FEMA 361 Chapter 9, Emergency Management Considerations, is deleted in its entirety.

Subp. 7. **FEMA 361 Chapter 10.** FEMA 361 Chapter 10, Design Commentary, is amended by deleting subsections 10.2.2, Design Wind Speeds for Hurricanes, and 10.2.3, Wind Speeds for Alaska, in their entirety.

Subp. 8. **FEMA 361 Appendix A.** FEMA 361 Appendix A, Benefit/Cost Analysis Model for Tornado and Hurricane Shelters, is deleted in its entirety.

Subp. 9. **FEMA 361 Appendix C.** FEMA 361 Appendix C, Case Study I - Stand-Alone Community Shelter (North Carolina), is deleted in its entirety.

Subp. 10. **FEMA 361 Appendix D.** FEMA 361 Appendix D, Case Study II - School Shelter Design (Kansas), is deleted in its entirety.

Statutory Authority: *MS s 326B.02; 326B.101 to 326B.151*

History: *35 SR 1427*