



# Chanhasen Fire Department

## FIRE PREVENTION BUREAU

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### CHANHASSEN FIRE DEPARTMENT POLICY FIRE SPRINKLERS IN TOWNHOMES/CONDOMINIUMS

#### **PURPOSE:**

To facilitate the installation of sprinkler systems which benefits the community by supporting the volunteer fire department and most importantly, fire sprinklers save lives. To encourage the installation of fire sprinklers in residential occupancies primarily for life safety and secondarily for property protection through the reduction in installation costs whenever possible.

#### **APPLICABLE STANDARDS:**

The occupancy classification for Townhomes/condominiums may be either R-2 or R-3 depending on the construction method. Homes constructed as an R-2 occupancy shall be protected with a sprinkler system designed in accordance with NFPA 13R. Homes constructed as an R-3 occupancy shall be protected with a sprinkler system designed in accordance with NFPA 13D. These design standards are applicable to required or voluntary systems. Currently the 2010 edition of NPFA 13 has been adopted in the State of Minnesota.

#### **DESIGN CRITERIA:**

##### **NFPA 13R**

Note: This is a very limited summary of the code requirements; refer to the standard for all code provisions.

- Fire department connection required unless entire structure is single story and less than 2000 sq. ft. in area.
- Indicating control valve required in separate accessible structure or room “Doghouse” independent of living space, protected with a supervisory tamper switch.
- Outside horn/strobe required above FD connection.
- Systems with 20 or more sprinkler heads must be monitored by an approved central station.
- For sprinkler design criteria. Sprinklers manufactured after July 12, 2002, must be listed to provide a minimum of .05 gpm/ft<sup>2</sup>.
- Hydrostatic test of system required.
- Sprinklers can be omitted in the following rooms or areas:
  1. Bathrooms that are 55 square feet or less in size, when walls are noncombustible providing a 15 minute thermal barrier.
  2. Closets, pantries and storage areas 24 square feet or less in size and where the smaller dimension of the space is 3 feet or less (these areas must have ceilings and walls surfaced with noncombustible materials).
  3. Porches, balconies, corridors, and stairs that are open and attached provided the balcony meets the requirements of IBC 1406.3. Note: dampers required if mechanical equipment in an exterior closet penetrates into the living space and the closet is not sprinklered.
  4. Attics, crawl spaces and similar areas that are not used for living purposes or storage.
    - **Note: Sprinkler protection will be required in unheated garage space.** Every effort will be made to ensure that the garage protection is installed in the most cost efficient manner. Strict compliance of spacing and coverage may be waived when appropriate. A minimum of one sprinkler located near the door leading into the

unit is required.

- Systems must be inspected annually by a licensed sprinkler contractor.
- Air temperature in the doghouse room should be monitored by an alarm company to prevent damage to the system from freezing.
- Contractors must take steps to prevent damage to sprinkler heads when heaters are used to dry out drywall taping and patching.

### **NFPA 13D (Option for building with single water supply.)**

Note: This is a very limited summary of the code requirements; refer to the standard for all code provisions.

- The sprinkler system water supply may be connected prior to the water meter.
- A double check valve assembly or RPZ is required.
- There is no requirement for a FD connection on the outside of the building.
- There is no requirement for a sprinkler flow alarm outside of the building, but may be installed if desired.
- Two sprinkler design criteria. Sprinklers manufactured after July 12, 2002, must be listed to provide a minimum of .05 gpm/ft<sup>2</sup>.
- Sprinklers can be omitted in the following rooms or areas:
  1. Bathrooms that are 55 square feet or less in size.
  2. Closets, pantries and storage areas 24 square feet or less in size and where the smaller dimension of the space is 3 feet or less (these areas must have ceilings and walls surfaced with noncombustible materials).
  3. Carports, porches and similar structures.
  4. Attics, garages, crawl spaces and similar areas that are not used for living purposes or storage.
- Contractors must take steps to prevent damage to sprinkler heads when heaters are used to dry out drywall taping and patching.

### **NFPA 13D (Option for buildings with individual water supplies to each unit.)**

Note: This is a very limited summary of the code requirements; refer to the standard for all code provisions.

- The sprinkler system water supply may be connected prior to the water meter.
- A double check valve assembly or RPZ is required.
- Indicating control valve required to be secured in the open position by an approved means.
- There is no requirement for a FD connection on the outside of the building.
- There is no requirement for a sprinkler flow alarm outside of the building, but may be installed if desired.
- Two sprinkler design criteria. Sprinklers manufactured after July 12, 2002, must be listed to provide a minimum of .05 gpm/ft<sup>2</sup>.
- Sprinklers can be omitted in the following rooms or areas:
  1. Bathrooms that are 55 square feet or less in size.
  2. Closets, pantries and storage areas 24 square feet or less in size and where the smaller dimension of the space is 3 feet or less (these areas must have ceilings and walls surfaced with noncombustible materials).
  3. Carports, porches and similar structures.
  4. Attics, garages, crawl spaces, and similar areas that are not used for living purposes or storage.

**PERMITS**

Fire protection system work must conform to requirements for licensing, permitting and inspections as required in Minn. Stat. § 299M. Homeowners currently occupying a home however, are permitted by Minn. Stat. § 299M to install residential sprinklers in their own home without the use of a licensed contractor, provided that the plans are signed by a licensed contractor and a permit is obtained.

Revisions      3/22/05  
                    5/2/08  
                    2/15/10  
                    4/17/17