

# MEMBER FIELD GUIDE TO THE 2015 MINNESOTA BUILDING CODE FIRE SPRINKLER SYSTEM REQUIREMENTS V.3.0



SPONSORED BY



Member Field Guide to the 2015 Minnesota Building Code Fire Sprinkler System Requirements  
V.3.0

Builders Association of Minnesota  
© Copyright 2017  
All rights reserved. Published 2016  
Contact [info@bamn.org](mailto:info@bamn.org) for more information.

This document is meant to be used in conjunction with the 2012 International Residential Code® (IRC) published by the International Code Council (ICC).

The IRC and sections from the IRC in this guide were reproduced with permission from the International Code Council. This *Member Guide to the 2015 Minnesota Building Code Fire Sprinkler System Requirements V.3.0* contains copyrighted material from the 2012 International Residential Code, which is a copyrighted work owned by the International Code Council, Inc. Without advance written permission from the copyright owner, no part of the International Residential Code may be reproduced, distributed or transmitted in any form or by any means, including, without limitation, electronic, optical or mechanical means (by way of example and not limitation, photocopying, or recording by or in an information storage revival system).

For more information on permission to copy material exceeding fair use, please contact: Publications, 4051 West Flossmoor Road, Country Club Hills, IL 60478. Phone 1-888-ICC-SAFE (422-7233).

BAM is solely responsible for the content of this guide, not our project partners. This guide is intended as a training and reference tool for the residential construction industry. The Builders Association of Minnesota specifically disclaims any responsibility to any party for the content of this guide or any errors or omissions that it may contain. Summaries of code changes or specific code sections are provided for information only. Consult [www.bamn.org](http://www.bamn.org) recently to check for any errata or new information about Minnesota's 2015 Residential Building Code or this or other resources published by BAM.

# TABLE OF CONTENTS

<b>TABLE OF CONTENTS</b>	<b>3</b>
<b>LETTER FROM THE PRESIDENT</b>	<b>5</b>
<b>FORWARD</b>	<b>5</b>
<b>INTRODUCTION</b>	<b>6</b>
<b>MEMBER FIELD GUIDE TO THE 2015 MINNESOTA BUILDING CODE FIRE SPRINKLER SYSTEM REQUIREMENTS</b>	<b>7</b>
<b>1. SYSTEM SELECTION</b>	<b>8</b>
A. STAND-ALONE SPRINKLER SYSTEM	8
B. PASSIVE PURGE SYSTEMS	9
C. MULTIPURPOSE SPRINKLER SYSTEMS	9
<b>2. SPRINKLER STANDARDS</b>	<b>10</b>
A. REVIEWING AUTHORITY	11
B. PLANS	11
<b>3. WATER SUPPLY</b>	<b>12</b>
A. REQUIRED CAPACITY	12
B. FIRE SPRINKLER SYSTEMS ON WELL WATER	12
<b>4. INFRASTRUCTURE</b>	<b>12</b>
<b>5. SYSTEM RISERS</b>	<b>13</b>
A. STAND-ALONE	13
B. PASSIVE PURGE	14
C. MULTIPURPOSE	14

<b>6. SPRINKLERS</b>	<b>14</b>
A. PENDANT SPRINKLERS	14
B. SIDEWALL SPRINKLERS	15
<b>7. SPRINKLER COVERAGE</b>	<b>15</b>
A. FREEZING AREAS	15
<b>8. BASEMENTS</b>	<b>16</b>
<b>9. CLOSETS AND BATHROOMS</b>	<b>16</b>
<b>10. COMPARTMENTS</b>	<b>17</b>
<b>11. OBSTRUCTIONS TO COVERAGE</b>	<b>17</b>
A. PENDANT SPRINKLERS	18
B. SIDEWALL SPRINKLERS	18
<b>12. SLOPED CEILINGS</b>	<b>18</b>
<b>13. HEAT SOURCES</b>	<b>18</b>
<b>14. INSPECTIONS</b>	<b>19</b>
A. ROUGH-IN INSPECTION	19
B. TESTING	19
C. FINAL INSPECTION	20
<b>15. INSTRUCTIONS AND SIGNS</b>	<b>20</b>
<b>16. OTHER INSTALLATION REQUIREMENTS</b>	<b>20</b>
<b>STILL HAVE QUESTIONS?</b>	<b>21</b>

## LETTER FROM THE PRESIDENT

Dear Members of the Builders Association of Minnesota,

On behalf of the 2,800 members of the Builders Association of Minnesota (BAM), I am pleased to present the *BAM Member Field Guide to the 2015 Minnesota Building Code Fire Sprinkler System Requirements*. BAM's mission is to help our members excel in the residential construction and remodeling industry. This guide is a tool to help members reach that goal.

This guide would not have been possible without the hard work of several dedicated members. These individuals served on code committees and councils and technical advisory committees, and generously gave of their time and talent to advocate for the industry and the best possible code for Minnesota.

I'd also like to thank you for your membership with the Association. These guides exist because of your membership, and they are a big part of the value of membership.

Sincerely,

KC Chermak, 2016 President  
Builders Association of Minnesota

## FORWARD

Several resources were used to develop this guide and BAM wishes to extend sincere gratitude for the production of these guides for BAM's membership:

Illustrations were generously donated by BAM Member George Cundy, Terrace Development and Design.

Production work was provided by  
Ed Von Thoma, Building Knowledge Inc.



Code guide review was provided by a group of dedicated BAM members. A big thank you to each member for their time, expertise, and dedication to excellence and the industry.

## INTRODUCTION

The *BAM Member Field Guide to the 2015 Minnesota Building Code Fire Sprinkler System Requirements* was developed to help residential contractors, subcontractors, suppliers, local code officials, and others in the residential construction industry understand important code changes. On January 24, 2015 Minnesota will start enforcing the 2012 International Residential Code with Minnesota-specific amendments. Minnesota's version of the code is the 2015 Minnesota Building Code.

The commentary provided in this document is for reference only. Please refer to a copy of the 2012 IRC published by the ICC and the 2015 Minnesota Building Code published by the Minnesota Department of Labor and Industry for specific code language. Only specific sections of code language are included in their entirety in this guide.

This guide is intended as a training and reference tool for the residential construction industry. The Builders Association of Minnesota specifically disclaims any responsibility to any party for the content of this guide or any errors or omissions that it may contain. Check actual code sections for precise intent of a specific code section. Summaries of code changes or specific code sections are provided for information only.

The link to a PDF version of this guide can be downloaded directly from [www.bamn.org/regulation](http://www.bamn.org/regulation).

**Note: the Minnesota Department of Labor and Industry and the International Code Council have the 2015 Minnesota Building Code available for free online access at: [2015 Minnesota Residential Code](#).**

# MEMBER FIELD GUIDE TO THE 2015 MINNESOTA BUILDING CODE FIRE SPRINKLER SYSTEM REQUIREMENTS

The Minnesota Court of Appeals issued an opinion Oct. 13, 2015, that the adopted Minnesota Residential Code rule that requires the installation of automatic sprinkler systems is *invalid* for the construction of all new:

- two-family dwellings; and
- one-family dwellings over 4,500 square feet.

Based on this court decision, municipalities that administer and enforce the Minnesota State Building Code may not enforce Minnesota Rules Part 1309.0313, Section R313.2.

Fire sprinkler systems are still required in townhouses. A townhouse is defined as a single-family dwelling unit constructed in a group of two or more attached units in which each unit extends from the foundation to the roof and having open space on at least two sides of each unit. Each single family dwelling unit shall be considered to be a separate building. Separate building service utilities shall be provided to each single-family dwelling unit when required by other chapters of the State Building Code.

Click on the link below for a Fact Sheet by the Minnesota Department of Labor and Industry on the difference between a townhouse and a two-family dwelling  
[http://www.dli.mn.gov/CCLD/PDF/fs\\_townhouse.pdf](http://www.dli.mn.gov/CCLD/PDF/fs_townhouse.pdf)

The design and installation of townhouse residential fire sprinkler systems can meet the requirements of either NFPA 13D or IRC Section P2904. The intent of these standards are to provide an affordable sprinkler system in homes while maintaining a high level of life safety. It would be useful for builders to access [Section P2904](#) and to purchase their own copy of the [NFPA 13D Standard](#).

It is recommended that you develop a good working relationship with a licensed fire protection contractor or licensed plumbing contractor that has a fire protection specialist. They will be able to create the most efficient and cost-effective layout for your townhouses.

A summary of items to consider for townhouse fire sprinkler systems follows:

## **1. SYSTEM SELECTION**

Due to cost considerations, builders typically avoid the following system types: Dry systems, Pre-action Systems, Antifreeze systems

Besides the upfront cost, there are several annual maintenance issues that will add cost to the homeowner.

For most townhouses, wet-pipe systems are the most common. There are three types of wet systems to consider; stand-alone, passive purge, and multipurpose.

### **A. STAND-ALONE SPRINKLER SYSTEM**

Stand-alone sprinkler systems are separate and independent from the water distribution system.

A standalone system only supplies water to the fire sprinklers. There is a completely separate supply that feeds the domestic water. A contractor may use any listed material in a stand-alone application including but not limited to iron pipe, copper, CPVC, HDPE, and PEX. The system will likely need some sort of backflow prevention. The



city may only require a single or double check valve to prevent contamination. If the city requires a backflow preventer or RPZ backflow device this will be a maintenance issue for the homeowner. A stand-alone system must be designed and installed by a licensed fire protection contractor.

## **B. PASSIVE PURGE SYSTEMS**

Passive purge systems supply water only to the fire sprinklers and a single domestic fixture.

The purpose of the single fixture is to purge out undesirable water from the system. A contractor may use any listed material in a stand-alone application including but not limited to iron pipe, copper, CPVC, HDPE, and PEX. If the single fixture is potable, then the piping material must also carry a potable listing and the components in the system must also be lead free. A fire protection contractor might be able to install a passive purge system provided that the fixture is non-potable such as the main tap to an irrigation system (double check to see if licensing rules apply). A licensed plumber will install most passive purge systems. Having a passive purge system will likely eliminate the need for backflow prevention and a separate fire protection contractor.

## **C. MULTIPURPOSE SPRINKLER SYSTEMS**

Multipurpose sprinkler systems integrate with the homes domestic water system.

A multipurpose system supplies water to the fire protection system and multiple (potentially all) cold-water fixtures. A contractor must use material in the system that is listed for fire protection and potable applications. This typically includes copper, CPVC, and PEX piping. Backflow prevention is not required in these types of systems. In a multipurpose system, the sprinklers attached to the system need to comply with all local and federal plumbing rules. This means all sprinklers attached to the system are required to be lead free. Only a licensed plumber may install multipurpose systems. Having a multipurpose system will eliminate the need for annual maintenance and a separate fire protection contractor.

It will be beneficial for builders to obtain estimates on the different system types, especially if you are new to fire protection. Cost will be a main component to system selection but material type, material failure rate and system life expectancy will be equally important factors. Being prepared to make an informed decision on system selection will pay off in the long run.

## **2. SPRINKLER STANDARDS**

There may be confusion between the differing requirements that appear in other fire sprinkler standards and what is applicable for single-family dwelling systems under Minnesota code requirements.

Below is a list of common NON-requirements that cross-contaminate the standard applicable to single family dwellings.

1. Spare sprinklers on the jobsite
2. Spare sprinkler cabinet
3. Spare sprinkler wrench
4. An inspector's test connection
5. A full flow test at the city main
6. Sprinklers in all bathrooms
7. Sprinklers in all closets
8. Obstruction rules that are not applicable
9. Additional sprinkler plan requirements such as cross sections and site plans
10. Sprinklers in garages
11. Sprinklers in skylights
12. Fire department connections
13. Sprinkler flow switches
14. Local alarms
15. Electronic monitoring
16. Minimum distances between sprinklers

This is not a comprehensive list of what might be unnecessarily required. Obtaining designs and estimates from contractors that specialize in NFPA13D systems will likely save you money on the project.

If there is a written ordinance in your municipality about a requirement, you will have to comply. Make sure your fire protection contractor knows about it. Ultimately it's their responsibility to know but giving them a heads-up warning will prevent an unnecessary change-order later on.

## **A. REVIEWING AUTHORITY**

The reviewing authority for a sprinkler system may vary depending on the sprinkler system type. In Minnesota there are a number of municipalities that conduct in-house sprinkler plan review ([click here for list](#)). For those municipalities that do not appear on the list, sprinkler plan submittals will go to the State Fire Marshal's office for review with the exception of Multipurpose systems. In some cases there may not be a reviewing authority for a multipurpose project. In these instances it is important to make certain that the local plumbing inspector receives a copy of the sprinkler documentation.

## **B. PLANS**

The sprinkler documentation supplied to the reviewing authority should show the following:

1. Address (if known)
2. Size and type of domestic line, including length to city connection
3. Water meter size
4. Current static water pressure
5. Interior walls
6. Model, manufacturer, temperature, orifice size, and spacing requirements of sprinklers
7. Type of piping
8. Hanger spacing requirement per the pipe manufacturer
9. Riser detail
10. Installing contractor information
11. Preliminary hydraulic calculations

### **3. WATER SUPPLY**

The most common water supply for an automatic residential fire sprinkler system is by a connection to a city water system.

#### **A. REQUIRED CAPACITY**

Residential sprinkler systems are designed to have a water supply with a minimum duration of 10 minutes. The average residential sprinkler system is designed to flow two sprinklers for 10 minutes minimum, needing an approximate 225-gallon water supply.

#### **B. FIRE SPRINKLER SYSTEMS ON WELL WATER**

If the well provides enough water to supply household plumbing needs, the supply may be adequate for fire sprinklers. In some cases a larger pump or tank may be needed for sprinklers, but standard, off-the-shelf pumps and tanks suitable for plumbing systems are permitted.

Well systems incorporating fire sprinklers at the start of the building process are usually set up with a larger well pump and larger expansion tanks. Residential pump and expansion tanks will be sized to pick up the additional pressure necessary to run the fire sprinkler system and are not necessarily as large as some would believe.

Stand alone tank systems can be set up to provide for the difference in supply as opposed to total demand. A separate pump is required and has the benefit of not being used for anything but the fire sprinkler demand. Stand-by power is not required, but many manufacturers build their systems with battery back up as a standard feature.

### **4. INFRASTRUCTURE**

Verify the size and distance of the supply line to the structure. The supply line determines how much money any given sprinkler system is going to cost the sprinkler installer, builder, and eventually the homeowner. Larger underground supply lines to houses translate to smaller, easier to handle sprinkler lines. Not only are smaller lines in the structure more cost effective from a purchasing standpoint and less expensive

from an installation standpoint, smaller lines create fewer conflicts during installation. Fewer conflicts mean fewer change orders.

It is in the best interest of the builder to have a sprinkler design completed before supply lines are in place. This way the builder can give the designer the specifics regarding the underground distances and allow the layout technician or engineer to determine which pipe size will work best for a smaller system. This is the best way to avoid an unnecessary pump, large lines, and trade conflict.

The following list consists of general guidelines for NFPA 13D system supply pipes that will help keep the system piping small and help in avoiding pumps.

1. Avoid meter-setting devices ("yokes") as they greatly reduce pressure.
2. Do not install water meters that are 5/8" or even 5/8" x 3/4". 5/8" inlet meters almost always require a tank and pump. They will have a GPM limitation that will be smaller than what a typical sprinkler system needs. Stick to 3/4" or 1" inlet meters. Meters larger than 1" are generally unnecessary and cost prohibitive.
3. Always use a 1" meter if more than one dwelling unit is sharing a supply line. The calculation rules change when a supply line is shared.
4. Keep it typical. If you are putting sprinklers in a development, always size the individual underground supplies according to the worst-case scenario. This will limit the amount of communication needed to coordinate supply line sizes with the sprinkler contractor.

## **5. SYSTEM RISERS**

Depending on which system you've elected to install, the system riser will vary. Some will be more expensive than others. Below is a list of what to expect with the different types of wet pipe systems.

### **A. STAND-ALONE**

A stand-alone system will split at the valve assembly from the domestic water line. Because of this, some sort of backflow prevention will be necessary. This could be as ba-

sic as a single check valve but could be as complex as a reduced-pressure-zone backflow preventer. The backflow device will depend on the municipality. Downstream of the backflow preventer you'll need to install a control valve, and a system drain.

## **B. PASSIVE PURGE**

Because there is a domestic fixture attached to the sprinkler system a backflow preventer isn't needed but the municipality still may require it. Downstream of the backflow device you'll need to install a control valve and a system drain. The municipality may allow you to treat the single fixture as the system drain.

## **C. MULTIPURPOSE**

More than likely you will not need to have any backflow device on a multipurpose system unless the city already has a requirement in place for all domestic lines. The only thing needed on a multipurpose system is a single control valve. Downstream of that you do need a system drain but the plumbing fixtures that are connected to the fire line already act as system drains.

There are many things that you can add to the sprinkler riser such as pressure reducing valves, flow switches (there are special flow switches for multipurpose systems), pumps, water softeners, filters, etc. Ultimately you'll become comfortable with a particular system type and come to expect a certain type of system riser.

# **6. SPRINKLERS**

There are basically two types of residential sprinkler heads; ceiling mounted pendants and wall mounted sidewalls.

## **A. PENDANT SPRINKLERS**

Pendent sprinklers are installed in the ceiling and sprays water in a circular pattern.

## **B. SIDEWALL SPRINKLERS**

Sidewall sprinklers are installed in a wall 4" to 6" down from the ceiling and sprays water in a half moon shape.

Pendent sprinklers are the most common type with sidewall sprinklers commonly used in existing installation to be less obtrusive or in new construction to prevent installing pipe in an unheated area.

Each sprinkler type can be recessed or concealed behind a special plate that falls away when the sprinkler activates. The lower, almost flush profile of the concealed sprinkler does not lend itself to as much accidental damage.

Sprinklers activate individually, only discharging water when the temperature at that head exceeds the allowable range, typically 135-170 degrees.

Residential fire sprinklers use small amounts of water to put out a fire, typically 13 to 20 gallons per minute.

## **7. SPRINKLER COVERAGE**

Sprinkler coverage area is typically 16' by 16' per head. The area of coverage of a single sprinkler head cannot exceed 400 square feet and is based on the sprinkler listing and the sprinkler manufacturer's installation instructions.

Attics, crawl spaces and normally unoccupied concealed spaces that do not contain fuel-fired appliances do not require sprinklers. In attics, crawl spaces and normally unoccupied concealed spaces that contain fuel-fired equipment, a sprinkler will be installed above the equipment; however, sprinklers will not be required in the remainder of the space.

## **A. FREEZING AREAS**

Like other plumbing systems, sprinklers need to be protected from freezing. Sprinklers and piping run in attics will be a challenging decision to make. On one hand, the costs associated with a pendant installation vs. a sidewall installation are very appeal-

ing. Pendant systems are typically less expensive to install. On the other hand, the prospect of placing sprinkler lines in attics can have risks in cold weather climates. The rules in NFPA 13D regarding attic insulation are vague and lack empirical data. The only hard guideline that contractors are given is that the sprinkler piping has to be in a space that is maintained above 40°F. When deciding on sprinkler piping in the attic consider at least the following.

1. Make sure that testing has been conducted with the material that you are going to use regarding cold weather installations. See if the manufacturer has published any guidelines that deal with maintaining sprinkler lines in an attic at 40°F.
2. Try to get a list of projects in your area or in colder areas that have utilized an attic piping configuration with the material that you are intending to use.
3. Confirm the warranty offered on the system and installation.

## **8. BASEMENTS**

The new building code requires fire protection, typically drywall, for the floor/ceiling assembly of the basement if there are no fire sprinklers in the basement.

However, residential fire sprinklers are generally not listed for use under exposed wood joists, which is a common ceiling configuration in an unfinished basement. Nonmetallic pipe systems require protection by material having a 15-minute thermal barrier, unless the pipe manufacturer permits exposed piping. The manufacturers' rating for exposure will be based on the size and type of floor joists being installed (i.e. solid wood joists, composite wood I-joists, open web joists).

To avoid putting drywall on the basement ceiling you will need to use either metallic pipe or sprinklers rated for exposure for the size and type of floor joists you are using.

## **9. CLOSETS AND BATHROOMS**

Keeping closets under a certain size will decrease the amount of sprinklers needed on any given project.



A few simple rules for closets (clothes closets, linen closets and pantries). A closet does not need a sprinkler in it if the following are true:

1. The closet does not exceed 24 sq. ft.
2. The least dimension in the closet does not exceed 3'-0". (a 6'x3' closet would not need a sprinkler, the smallest dimension is 3' or less and it's less than 24 sq. ft. A 6'x3'1" closet needs a sprinkler. The closet is still less than 24 sq. ft. but the smallest dimension exceeds 3'-0")
3. The closet is constructed of limited-combustible material (basically, if the walls are drywalled, you're ok.)

Bathrooms not more than 55 square feet in area are not required to have fire sprinklers as long as the walls and ceiling are drywalled (providing a 15-minute thermal barrier).

## **10. COMPARTMENTS**

A compartment is a space completely enclosed by walls and a ceiling. Each wall in the compartment is permitted to have openings to an adjoining space if the openings have a minimum lintel depth of 8 in. from the ceiling and the total width of the openings in a single wall does not exceed 8 ft. in width. A single opening of 36 in. or less in width without a lintel is permitted when there are no other openings to adjoining spaces.

This rule may come in handy when determining the amount of sprinklers within a room. As an example, bathrooms that are less than 55 sq. ft. do not require sprinklers and in some cases bathrooms over 55 sq. ft. that are compartmentalized may also not require sprinklers.

## **11. OBSTRUCTIONS TO COVERAGE**

Obstructions to water flow must be considered when locating sprinklers near:

- Beams
- Soffits

- Light fixtures
- Ceiling fans

Additional sprinklers will be required where the sprinkler separation from obstructions exceeds either the minimum distance per code or per the sprinkler manufacturer's instructions.

#### **A. PENDANT SPRINKLERS**

Pendent sprinklers within 3 feet of the center of a ceiling fan, surface-mounted ceiling light or similar object are considered to be obstructed, and additional sprinklers will need to be installed.

#### **B. SIDEWALL SPRINKLERS**

Sidewall sprinklers within 5 feet of the center of a ceiling fan, surface-mounted ceiling light or similar object are considered to be obstructed, and additional sprinklers will need to be installed.

### **12. SLOPED CEILINGS**

Sloped ceiling coverage can be complicated with coverage requirements based on the combination of ceiling configuration, angle of slope, highest point of ceiling and presence of beams, if applicable. In many cases additional sprinklers and/or sprinklers with higher flow rates may be needed.

### **13. HEAT SOURCES**

Sprinklers need to be separated a specific distance from heat sources such as:

- Fireplaces
- Coal and wood burning stoves
- Kitchen range
- Wall oven
- Hot air flues

- Uninsulated heating duct
- Side of ceiling or wall warm air register
- Front of wall mounted warm air register
- Water heater, furnace or boiler
- Uninsulated hot water pipes
- Light fixtures 0W-250W
- Light fixtures 250W-499W

Each heat source requires a different minimum separation distance which can vary depending on the sprinklers' temperature rating.

## **14. INSPECTIONS**

### **A. ROUGH-IN INSPECTION**

The following items are verified prior to the concealment of any sprinkler system piping:

1. Sprinklers are installed in all areas required.
2. Where sprinkler water spray patterns are obstructed by construction features, lighting or ceiling fans, additional sprinklers are installed as required.
3. Sprinklers are the correct temperature rating and are installed at or beyond the required separation distances from heat sources.
4. The pipe size equals the size calculation.
5. The pipe length does not exceed the length permitted.
6. Nonmetallic piping that conveys water to sprinklers is listed for use with fire sprinklers.
7. Piping is supported in accordance with the pipe manufacturer's and sprinkler manufacturer's installation instructions.
8. The piping system is tested.

### **B. TESTING**

The NFPA 13D standard only requires pressure testing to normal operating pressure (city pressure). Flow testing is recommended as it ensures that the sprinkler system

operates within the correct flow and pressure requirements of the original design. It is recommended to keep documentation of any testing that is conducted on the system.

### **C. FINAL INSPECTION**

The following items are verified upon completion of the system:

1. Sprinklers are not painted, damaged or otherwise hindered from operation.
2. Where a pump is required to provide water to the system, the pump starts automatically upon system water demand.
3. Pressure-reducing valves, water softeners, water filters or other impairments to water flow that were not part of the original design have not been installed.
4. The sign or valve tag required is installed and the owner's manual for the system is present.

## **15. INSTRUCTIONS AND SIGNS**

The homeowners must be provided a manual for the fire sprinkler system.

Also, a sign or valve tag needs to be installed at the main shutoff valve to the water distribution system stating the following: *"Warning, the water system for this home supplies fire sprinklers that require certain flows and pressures to fight a fire. Devices that restrict the flow or decrease the pressure or automatically shut off the water to the fire sprinkler system, such as water softeners, filtration systems and automatic shutoff valves, shall not be added to this system without a review of the fire sprinkler system by a fire protection specialist. Do not remove this sign."*

## **16. OTHER INSTALLATION REQUIREMENTS**

Townhouse buildings will also need to include the following fire sprinkler requirements:

1. Attached garages are required to have one dry head sprinkler located within 5 lineal feet of the house to garage door.
2. Attached covered patios, covered decks, covered porches, and similar structures are required to have automatic sprinklers with a minimum of one dry

head for every 20 lineal feet of common wall between the home and the covered patio, covered deck, covered porch, or similar structure.

Exception: Attached roofs of covered patios, covered decks, covered porches, or similar structures that do not exceed 40 square feet of floor area will not need fire sprinklers.

State-licensed facilities. One- and two-family dwellings and townhouse buildings containing facilities required to be licensed or registered by the state of Minnesota shall be provided with an automatic sprinkler system required by the applicable licensing provisions of that agency or according to the code, whichever is more restrictive.

## **STILL HAVE QUESTIONS?**

Send your detailed energy code questions to BAM at [info@bamn.org](mailto:info@bamn.org).

BAM will post the most commonly asked questions on BAM's Code Q & A website page.

See [www.bamn.org/regulation](http://www.bamn.org/regulation) for more information.



# BUILDERS ASSOCIATION OF MINNESOTA

MEMBER FIELD GUIDE TO

## THE 2015 MINNESOTA BUILDING CODE FIRE SPRINKLER SYSTEM REQUIREMENTS

V.3.0

[bamn.org/regulation](http://bamn.org/regulation)

### THE BUILDERS GROUP

Self-insured workers comp.

Built by the Industry, for the industry.

1-888-824-3923

[www.tbgn.com](http://www.tbgn.com)

