



Emergency Prevention Division

Travis County Emergency Services District 3 & 9
1011 Westlake Drive - West Lake Hills, TX 78746
Mailing Address: P. O. Box 162170 - Austin, TX 78716-2170
Headquarters: (512) 327-9424 Fax: (512) 327-2780
www.westlakefd.org www.oakhillfire.org



Residential Fire Sprinkler Packet

Please familiarize yourself with the information enclosed to assist you in your automatic fire sprinkler installation decision.

Included:

- 1. Life Safety Fire Sprinkler Acceptance Form**
- 2. Orange County FD DVD**
 - A. This video is accessible at www.oakhillfire.org or a copy can be picked up at our Prevention Office.**
- 3. Protect What You Value Most DVD**
 - A. This video is accessible at www.oakhillfire.org or a copy can be picked up at our Prevention Office.**
- 4. "Protect What You Value Most" – Brochure**
- 5. "Controlling The Home Fire Threat" – Brochure**
- 6. "The Future of Fire Safety" – Brochure**
- 7. Fire Sprinkler Facts Sheet**

**Additional information is accessible on our website at –
www.oakhillfire.org**

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Life Safety Residential Fire Sprinkler Acceptance Form

Home Buyers Information	Builders Information
Name: _____	Company Name: _____
Address: _____	Name: _____
City: _____ State: _____ Zip: _____	Address: _____
Phone: _____	City: _____ State: _____ Zip: _____
Alternate Number: _____	Phone: _____
	Alternate Number: _____

The following prospective buyer statement is in accordance with Travis County Emergency Services District No. 3 Order No. 2008-01, Section 903.2.7.1.

Items received from builder and reviewed

Please check all items in which you have received.

- | | |
|--|--|
| <input type="checkbox"/> Protect What You Value Most - HFSC | <input type="checkbox"/> Built for Life Brochure - HFSC |
| <input type="checkbox"/> The Future of Fire Safety - HFSC | <input type="checkbox"/> Orange County FD DVD |
| <input type="checkbox"/> Fire Sprinkler Facts Sheet – HFSC | <input type="checkbox"/> Protect What You Value Most DVD |
| <input type="checkbox"/> Controlling the Home Fire Threat – HFSC | |

Prior to signing a sales contract, I have received an information packet containing the education materials listed above that were approved by the Oak Hill Fire Department / Travis County ESD #3.

Additional information can be found at the following website: www.oakhillfire.org

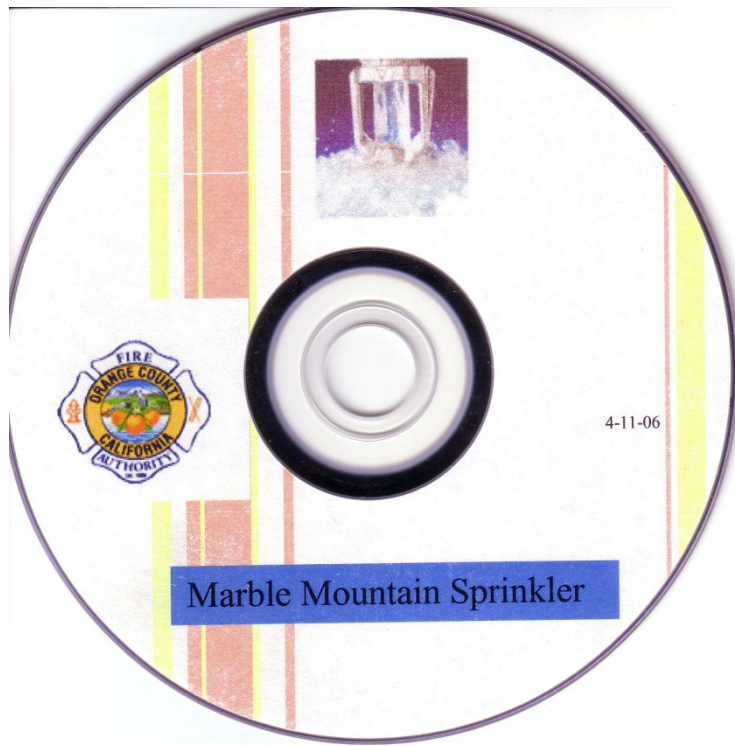
After review of the information contained within the education packet and any additional information explaining the option for residential fire sprinklers, my decision for residential fire sprinklers being installed in my new residence is: Yes to Installation No to Installation

Home Buyers Signature: _____ Date: _____

Home Buyers Signature: _____ Date: _____

Witness: _____ Date: _____

Upon completion of this form, please fax or mail to the address listed above for the Emergency Prevention Division.



Marble Mountain Sprinkler Demonstration – Courtesy of Orange County Fire Authority

Accessible at www.oakhillfire.org or a copy can be picked up at our Prevention Office.



Protect What You Value Most – Courtesy of Built for Life / Home Fire Sprinkler Coalition

Accessible at www.oakhillfire.org or a copy can be picked up at our Prevention Office.

HFSC MEMBERS



This program is supported by Fire Prevention and Safety Grant funding through the U.S. Department of Homeland Security

PROTECT WHAT YOU VALUE MOST





HOME FIRE FACTS*

- EIGHT OUT OF TEN FIRE DEATHS IN THE U.S. OCCUR IN THE HOME.
- EVERY 79 SECONDS, A RESIDENCE BURNS.
- SPRINKLERS AND SMOKE ALARMS TOGETHER CUT YOUR RISK OF DYING IN A HOME FIRE 82% RELATIVE TO HAVING NEITHER — A SAVINGS OF THOUSANDS OF LIVES A YEAR.

*NFPA

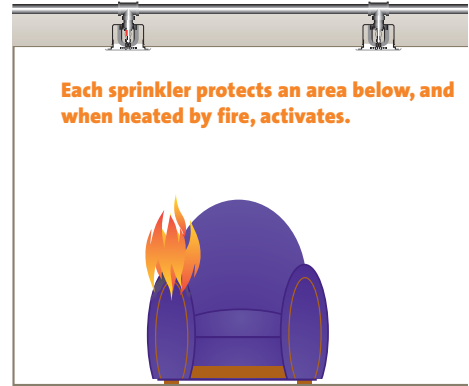
HOME FIRE SPRINKLERS SAVE LIVES

Fire kills more people in the United States annually than all natural disasters combined. In fact, more than 4,000 people perish in fires each year, and ironically, most fire deaths occur in the very place where we feel safest — our own homes. Home fires often happen at night when people are sleeping. In only three minutes, a room can become engulfed in flames before anyone awakens. Those at highest risk are the very young and older adults, who may have difficulty making a quick escape.

Smoke alarms are essential in every household. They're designed to detect, not control a fire. Home fire sprinklers complement the alarm's work, providing a way to fight flames immediately. In less time than it would take most fire departments to arrive on the scene, home fire sprinklers can contain and even extinguish a fire. There's less damage, and less chance of deadly smoke and gases reaching your family.

HOW HOME FIRE SPRINKLERS WORK

Sprinklers are linked by a network of piping, typically hidden behind walls and ceilings and usually drawing upon household water sources.



FIRE SPRINKLER MYTHS

Some homeowners are reluctant to install sprinklers because they don't know the facts about their operation.

Myth: The water damage from sprinklers is worse than a fire.

FACT: A SPRINKLER ACTIVATES DURING THE EARLY STAGES OF A FIRE BEFORE IT GROWS AND SPREADS. A SPRINKLER WILL CONTROL OR EXTINGUISH A FIRE WITH A TINY FRACTION OF THE WATER THAT WOULD BE USED BY FIRE DEPARTMENT HOSES. ONLY THE SPRINKLER CLOSEST TO THE FIRE WILL ACTIVATE, SPRAYING WATER DIRECTLY ON THE FIRE, NOT THE REST OF THE HOUSE.

Myth: Sprinklers go off accidentally, causing unnecessary water damage.

FACT: ACCIDENTAL SPRINKLER DISCHARGE IS EXTREMELY RARE. ONE STUDY CONCLUDED THAT HOME SPRINKLER ACCIDENTS ARE GENERALLY LESS LIKELY AND LESS SEVERE THAN STANDARD HOME PLUMBING MISHAPS. AND, DESPITE THE HOLLYWOOD "SIGHT GAGS", BURNED TOAST AND CIGARETTE SMOKE WILL NOT TRIGGER SPRINKLER OPERATION. EACH SPRINKLER WORKS INDEPENDENTLY AND ONLY IN RESPONSE TO FIRE.

Myth: Sprinklers are ugly.

FACT: MODERN RESIDENTIAL SPRINKLERS ARE INCONSPICUOUS AND CAN BE MOUNTED FLUSH WITH WALLS OR CEILINGS. SOME SPRINKLERS CAN EVEN BE CONCEALED. AND, JUST LIKE REGULAR PLUMBING, PIPES CAN BE HIDDEN BEHIND CEILINGS OR WALLS.



SPRINKLERS: A SAFE, SMART CHOICE

Fire sprinklers are mandatory in most public buildings, and people are now demanding the same level of protection for their homes. Home fire sprinklers save lives, reduce property loss and can even help cut homeowners' insurance premiums.

Not only do home fire sprinklers dramatically reduce the risk of home fire deaths, they also decrease fire damage by as much as two-thirds when compared to homes without sprinklers.

Many communities across the U.S. are seeing impressive results from installing home fire sprinklers in all new construction. In Scottsdale, AZ, fire sprinklers have been required in all new homes since 1986. Today, more than half the homes in Scottsdale are protected with sprinklers. There have been no deaths in sprinklered homes, while 13 people died in homes without sprinklers. There was less fire damage in the homes with sprinklers. The average fire loss per sprinklered incident was \$2,166 compared to more than \$45,000 loss per fire in homes without fire sprinklers.



SPRINKLERS KEEP FIRES SMALL. BECAUSE YOUR FIRE SPRINKLER SYSTEM REACTS SO QUICKLY, IT CAN DRAMATICALLY REDUCE THE HEAT, FLAMES AND SMOKE PRODUCED IN A FIRE. HOME FIRE SPRINKLER SYSTEMS CONTROL THE FIRE WITH ONLY 10 TO 26 GALLONS OF WATER PER MINUTE. IN A HOME WITHOUT SPRINKLERS, A FIRE DEPARTMENT OFTEN ARRIVES AFTER THE FIRE HAS GROWN TO DANGEROUS LEVELS. AT THAT POINT, A NUMBER OF HOSE STREAMS MUST BE APPLIED TO THE FIRE AT 125 GALLONS PER MINUTE FOR EACH HOSE. IN SPRINKLERED RESIDENCES, 90% OF FIRES ARE CONTAINED BY THE OPERATION OF JUST ONE SPRINKLER.

“Fire sprinklers give me peace of mind, especially at night when my children are sleeping.”

- SANDRA KUHNS, HOMEOWNER

PROTECTION YOU CAN LIVE WITH

When building a home, you choose from many options—carpeting, a fireplace or an extra bathroom, for instance. For about the same cost, you can choose a home fire sprinkler system to safeguard your family. No other option provides you with the peace of mind that fire sprinklers can. It’s like having your own firefighter standing by.

Recent technology breakthroughs make fire sprinklers more affordable and easier to install in homes. With a variety of designs available, sprinklers blend into the interior decor with ease. And, sprinkler systems usually operate off the domestic water supply.



Home fire sprinkler systems often cost less than cabinet upgrades, new carpeting and many other options in new home construction. A good rule of thumb estimate is to add 1 to 1½ percent to the cost of new housing. Fire sprinklers can also be installed in existing homes. When you consider the degree of built-in reliability and responsiveness that home fire sprinklers offer, the investment is a wise one.

TO ENSURE SPRINKLER SYSTEM RELIABILITY, BE SURE TO USE A QUALIFIED CONTRACTOR WHO ADHERES TO NFPA CODES AND STANDARDS AND LOCAL FIRE SAFETY REGULATIONS.



Controlling the Home Fire Threat



Protect what you value most



Home Fire Sprinkler[®]

C O A L I T I O N

Improved Fire Protection Through Public Education

Home Fire Sprinklers: A Smart Choice



Home fire sprinklers save lives and protect property... the lives and property that you value most.

Consider these facts:

- Every 80 seconds fire occurs in a U.S. residence.
- Every 34 minutes a civilian is injured by fire in the home.
- Eight out of ten fire deaths occur in the home.
- Young children, older adults, and physically and mentally challenged people are especially vulnerable to the risk of injury or death in residential fires.
- Too often, people fail to respond appropriately to the sound of a smoke alarm, because they assume it is a false alarm. Rather than exiting the building, they search to confirm the existence of a fire, wasting the few precious minutes they may have to safely escape.

It's clear that home fire sprinklers are a smart choice. That's why they are growing in popularity across the country.

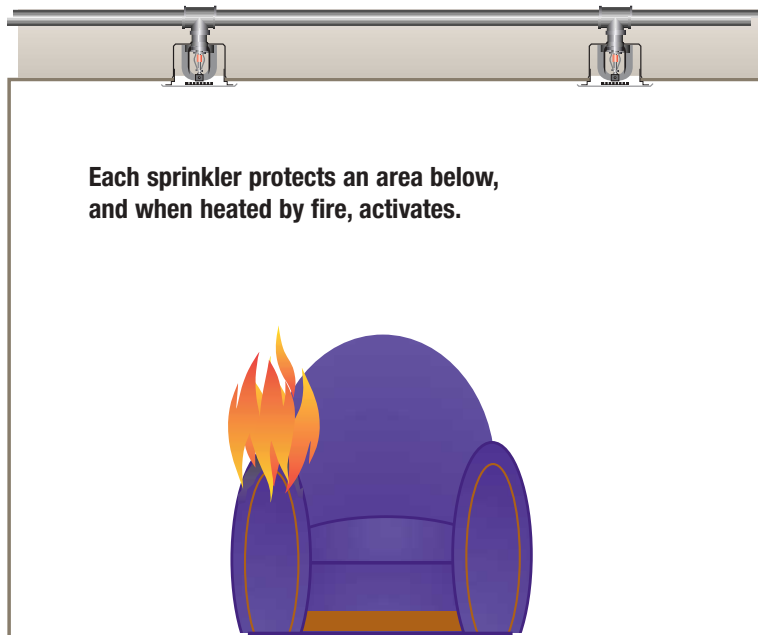
This automatic fire protection system works best in combination with properly installed and maintained smoke alarms. Sprinklers and smoke alarms together cut your risk of dying in a home fire 82% relative to having neither. That's a savings of thousands of lives a year.

The most convenient and least costly time to install home fire sprinklers is during new home construction. The expense is often only 1 to 1½ percent of the total building cost... about what you'd pay for an upgrade in carpeting. Sprinklers can also be retrofitted into existing homes.

You make choices to invest in attractive furnishings, security systems and other features for your home. A home fire sprinkler system is also an investment: in the safety of your family and most cherished belongings.

MYTH

The water damage from sprinklers is worse than a fire. The truth is, a sprinkler will control a fire with a tiny fraction of the water used by fire department hoses, because a sprinkler activates during the early stages of a fire before the fire department can arrive. Automatic systems spray water only in the immediate area of the fire, usually with just one sprinkler operating. As a result, the fire is kept from spreading, and widespread water damage is avoided.



How Home Fire Sprinklers Work

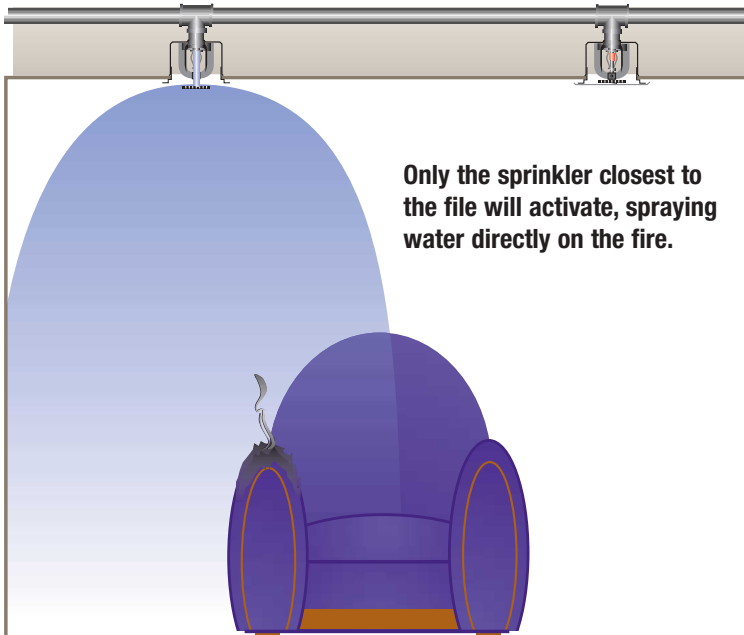
The key to effective fire protection is to control the fire early, before it can create deadly heat and large volumes of carbon monoxide and smoke.

Each sprinkler has a temperature-sensitive element. When heated by fire, the sprinkler closest to the fire will open automatically, spraying water directly on the burning materials. Sprinklers are linked by a network of pipes, which, just like regular plumbing, are usually hidden behind ceilings or walls. A sprinkler system ensures an early and direct response to a fire. Depending on the intensity of the fire, a home fire sprinkler will activate in as little as one minute, or less. And in sprinklered residences, 90% of fires are contained by the operation of just one sprinkler. Sprinklers also help minimize the production of deadly carbon monoxide gas, the primary cause of fire deaths.

Because the fast acting sprinkler operates when the fire is small, it uses much less water than fire department hoses. Home fire sprinklers are designed to control the fire until the fire department can respond. In a home without sprinklers a fire department often arrives after the fire has reached dangerous levels. The fire department would have to apply a number of hose streams at 125 gallons per minute for each hose.

Contrast that with a home fire sprinkler system flow rate of 10 to 25 gallons per minute. The difference in water damage, not to mention fire damage, is obvious.

Sprinklers are linked by a network of piping, usually drawing upon household water sources.



Only the sprinkler closest to the fire will activate, spraying water directly on the fire.

Q: How can I be assured the fire sprinkler system in my house will work?

A: Fire sprinkler systems are installed in accordance with engineering designs that have been established through many years of research and experience by testing laboratories and codes and standards organizations. Like electrical wiring and household plumbing, your fire sprinkler system must meet specified standards and pass required tests and inspections before your home will be approved for a certificate of occupancy.

MYTH

Sprinklers are ugly. Modern sprinkler fixtures are inconspicuous and can be mounted flush with walls or ceilings. Some sprinklers can even be concealed. And, just like regular plumbing, pipes can be hidden behind ceilings or walls.

Q: How can I be sure I'm getting a qualified contractor?

A: In most states, fire sprinkler contractors must be licensed to do work in their particular profession – just like plumbers or electricians. If your state requires licensing, contact the state licensing board for a current list of licensed contractors. Also, ask for references and check them out, just as you would a doctor, a babysitter, an auto mechanic or another type of contractor who might work on your home.

In Scottsdale, Arizona, where new homes are required by ordinance to be protected by automatic fire sprinklers, more than 50 percent of homes are now protected by the life-saving technology. Demand has driven down the cost to install home fire sprinklers and the installation cost is \$0.80 per square foot in Scottsdale – lower than the national average. Since the ordinance was passed, no one has died from fire in a sprinklered home. Sadly, 13 fire deaths have occurred in unsprinklered Scottsdale homes since 1986. Property loss from fire damage has also been reduced in this fast-growing Arizona city. A 15-year study of Scottsdale's sprinkler ordinance documents the average dollar loss per fire incident in sprinklered homes to be \$2,166 compared to \$45,019 for unsprinklered homes.

How to Select a Home Fire Sprinkler System



Kitchen fire without fire sprinklers



Kitchen fire with fire sprinklers

Because residential fire sprinklers are a relatively new fire protection feature for the home, not all home builders and developers are familiar with this technology or its important life safety value. For best results, seek an experienced and knowledgeable fire sprinkler contractor who can work with you on this important installation.

Most states, counties and municipalities have enacted specific laws and ordinances which establish the required credentials of contractors who prepare plans for and install residential fire sprinkler systems and provide a license or other form of recognition of those who qualify. Industry associations and some colleges and vocational schools offer training for contractors and their employees so they can obtain the necessary credentials required in their states.

All fire sprinkler systems, whether installed in offices, warehouses or homes, are installed according to standards published by the National Fire Protection Association. Adhering to these standards ensures the quality and reliability of installations. Residential fire sprinkler installations are governed by NFPA 13D, *Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes*. A fire sprinkler system designed to NFPA 13D criteria is intended to control a fire with two or fewer sprinklers, giving residents additional time to escape.

Use a professional fire sprinkler contractor who has the specialized knowledge that is required to install efficient, cost-effective systems, including: an understanding of the codes and standards that regulate fire sprinkler systems; knowledge of up-to-date technology and equipment; trained crews; and tested and approved materials and products.

An important element of the sprinkler system is the design, especially ensuring adequate water pressure and supply. Sprinkler systems may operate off the standard $\frac{3}{4}$ -inch household water supply without any special lines or pumps. However, in some areas lower water pressure will require installation of a 1-inch line from the home to the water main. Even in rural areas not served by a public water main, residential fire sprinkler water tanks can be installed to provide the required life saving water supply in case of a fire in your home. Therefore, planning for the fire sprinkler system early in the building stages will eliminate potential cost increases later.

Sprinklers: Unobtrusive Protection

Most people are familiar with automatic fire sprinklers they have seen in warehouses or office buildings and are unaware of the special designs available for use in the home. Unlike commercial devices, residential fire sprinklers are not large chrome frames that protrude four or five inches from the ceiling or stand on large black pipes. In fact, they can be mostly recessed into the ceiling or wall or in some models completely concealed by plates that actually match your paint. New low-profile residential sprinkler models are considerably smaller than smoke alarms. Even sprinklers that are not recessed or concealed have only about 1 inch of the frame exposed and are almost unnoticeable.

Piping for residential sprinklers is generally out of sight, behind walls and ceilings. Even in retrofit installations in older homes, the piping can be hidden behind attractive soffit materials if installation behind wall or ceiling materials is not practical.



Sprinklers: Affordable Protection

Fire kills more people in the United States annually than all natural disasters combined. In fact, more than 4,000 individuals perish in fires each year, and 81 percent of those will die in homes. Although smoke alarms are essential in every household, they're designed to detect, not control a fire. Home fire sprinklers complement the smoke alarm's work, providing a way to fight flames immediately. Not only do home fire sprinklers dramatically reduce the risk of home fire deaths, they also decrease fire damage by as much as two-thirds in residences with fire sprinklers when compared to those without sprinklers. In the 15-year study on Scottsdale, AZ, the reduction was 95%.

Many regional and local building codes offer design and construction alternatives for sprinklered buildings that are not available to non-sprinklered structures. The effectiveness of automatic fire sprinklers in reducing fire losses has also been recognized by the insurance industry, with many carriers providing discounts from 2% to 20% for automatic fire sprinklers. Check with your insurance agent for information on insurance credit for residential sprinklers.

No other option provides you with the peace of mind that fire sprinklers can. Having sprinklers is like having your own firefighter standing by at home. Home fire sprinkler systems often cost less than new carpeting or other major purchases in new home construction. When you consider the degree of built-in reliability and responsiveness that home fire sprinklers offer, the investment is a wise one.

Q: How much time will I spend selecting my fire sprinkler system?

A: Most individuals in the process of building a new home spend countless hours selecting just the right light fixtures, flooring and wallpaper, as well as determining exactly where telephone, TV and internet cable and electrical outlets will be placed. Although you do have choices about the appearance of the sprinklers themselves, selecting your fire sprinkler system will not take the same time or concentration as other features in your new home.

A fire sprinkler system is a package system that is installed in accordance with a specified standard, the National Fire Protection Association Standard 13D. The manufacturers of materials used in these installations meet criteria specified by the standards, so the only choice a homeowner must make is the style and manufacturer of the sprinkler device.

If your builder says...



Q: How do I deal with the local water purveyor?

A: How a local water purveyor handles residential fire sprinkler systems varies from state to state. In Arizona and California, where residential systems are commonplace, and often required, specific laws determine what can and can't be done when connecting fire sprinklers to the public water supply.

In other areas where residential fire sprinklers are a relatively new concept, you may run into questions or concerns from your water purveyor. In these areas, standard water department meters are often set up for a 3/4-inch line, smaller than the 1-inch line needed to supply some fire sprinkler systems.

Although system check valves are designed to prevent backflow, some water officials may express concern about possible backflow of sprinkler system water into the public water supply. Others may be misinformed about sprinkler system "standby" requirements of the water supply.

If you run into any of these situations, ask for assistance from your local fire chief or fire marshal, or your sprinkler contractor.

Residential fire sprinklers are a relatively new fire protection feature for the home, so not all home builders and developers are familiar with this technology or its important life safety value. Many people are reluctant to embrace a new technology if they are unfamiliar with the details. As a result, you may run into resistance from your builder at first. Following are some comments you may hear from your builder and responses you may use to answer.

"You don't need fire sprinklers in your home. You will have smoke alarms and the fire department's response time in this area is within four minutes."

Remember that YOU are the consumer and you deserve to have what you want in your home. You intend to install a greater level of safety for your family, pets and possessions... in the place where you are at greatest risk from fire: 80% of fire fatalities occur in the home.

A survey by the National Fire Protection Association shows that most people do not respond appropriately to the sound of a smoke alarm. They tend to believe it is a false alarm or search for the fire rather than exiting the building.

Four minutes for a fire department response sounds great, until you consider that the time is measured from the moment the fire department receives the call... NOT the moment the fire ignites. In a typical living room fire, room contents may be totally involved within only two or three minutes after ignition, and the room can be engulfed in flame long before the fire department arrives. In fact, if you are not at home, chances are good that the fire department will not be notified until after the intensity of the fire has blown out glass in the windows, which may be the first sign that a fire is in progress. Automatic fire sprinklers, on the other hand, will activate long before a fire reaches that size, often within only one minute of ignition, and will extinguish or control the fire until the fire department arrives.

"I am a specialty contractor and I can't coordinate fire sprinkler installations in the homes I build."

Ask if your builder coordinates voluntary installation of other new and innovative features such as central vacuum systems or home theater systems. How does a fire sprinkler contractor differ from those, or even the electrical, plumbing, HVAC, and other types of contractors that must come to the job site to install their systems?

"A fire sprinkler system might freeze in the winter."

Point out that, much like your plumbing system, your fire sprinkler system piping will be installed on inside walls or adjacent to the ceiling framing and then insulated to entrap the available heat lost from the living area below.

"I will not be responsible for water damage from a fire sprinkler system."

Ask if your builder is responsible for water damage from other household plumbing. If so, why the difference?

The McCabes



Fire Destroys McCabe Family Home

On the night of August 18, 1991, fire ravaged the West Bridgewater, Massachusetts, home of the McCabe family.

Dan, then 30, his wife Christine, 25, and 7-month old son Drake were all sleeping in the master bedroom of their split-level ranch. It was shortly after midnight when Dan was awakened by a loud popping sound. He got up and saw the fire roaring through his living room. Dan remembers grabbing his wife and baby and somehow managing to escape through the kitchen, the only clear path left in the house. Christine recalls the terrifying scene as "flames from floor to ceiling."

The McCabes ran to a neighbor's house and called for help. Firefighters arrived in about four minutes, but flames already consumed the living room and were spreading rapidly. When the fire, smoke and heat had run its course, the McCabe home had been completely destroyed along with their beloved pets and most of their cherished possessions.

McCabe and his family were left homeless, saddened, but happy to be alive. The family moved in with Dan's parents for about four months while they rebuilt the house. Unfortunately, the McCabes did not know that home fire sprinklers were available when they rebuilt.

The exterior of the McCabe home reveals little evidence of the destruction within.



Although the fire itself was contained to the room of origin...



...heat and smoke spread rapidly throughout the house.



Home Fire Sprinkler®

COALITION

Improved Fire Protection Through Public Education

The Mizioch family home.



Room where the fire occurred.



Fire started in a wicker bookcase.



Damage was confined to the room where the fire occurred.



The remainder of the house was undamaged.



Mizioch Family Escapes Fire Injury

It was shortly after 6:30 a.m. on July 3, 1996, when 13-year-old Rachel Mizioch of Scottsdale, Arizona, lit a candle and placed it on the rattan bookshelf in her bedroom.

Moments later, Rachel felt a drop of water on her face. When she turned to see where the water came from, Rachel saw flames engulfing her bookcase. The fire was spreading up the wall and across the ceiling and the fire sprinkler in her room was operating. Rachel ran from the room and alerted her 9-year-old sister Laurie, who got their mother. As Rebecca Mizioch ran to her daughter's bedroom, thick, black smoke began filling the room. Rebecca shut the door and hurried the two girls out of the house.

The automatic fire sprinkler system, installed one year earlier during construction of the Mizioch home, had activated in the immediate area of the fire. When the fire department arrived, the sprinkler had extinguished the fire. The family escaped injury, and other than damage to the paint in Rachel's bedroom, there was no property damage.

The story of the Mizioch family clearly illustrates the life- and property-saving value of automatic fire sprinkler systems in homes, particularly in new construction of one- and two-family dwellings.

YES, I WANT AUTOMATIC FIRE PROTECTION IN MY HOME, BUT...

Q: Where do I start? Will I find fire sprinklers in the yellow pages?

- A: If your home builder is not familiar with contractors that install residential fire sprinklers, you still have several options:
- Look in your local Yellow Pages under “Sprinklers, Fire”
 - Ask your local or state fire marshal if contractors in your state are required to be licensed. If they are, contact the state licensing board for a current list of licensed contractors.
 - Contact fire sprinkler contractor associations for names of residential sprinkler contractors in your area.
 - If you have a computer and like to “surf the net,” an increasing number of contractors have Web pages describing their capabilities.

Any professional fire sprinkler contractor can install these systems, but for best results look for a contractor that specializes in residential fire sprinkler systems or one that has a residential sprinkler installation unit within the company.

Q: What should I do if my home builder or architect has questions or says I don't need fire sprinklers?

- A: Most fire chiefs around the country will recommend fire sprinklers, as they have witnessed first-hand their benefit to life and property safety. Some, but not all architects and builders are educated, at least partially, about residential fire sprinklers. If your builder and architect are not familiar with these systems, have them contact the organizations below for information.

And, if your builder or architect tries to discourage you from finding out more about your possibilities, you can obtain information by contacting any of these resources:

- Any of the organizations listed at the end of this brochure
- Residential Fire Safety Institute, www.firesafefhome.org, (763) 416-0527, Dana Bies
- U.S. Fire Administration (301) 447-1018

Q: How much should I expect to pay for my fire sprinkler system?

- A: If installed during new home construction, home fire sprinklers often cost no more than 1 to 1½ percent of the total building cost, which is about what you'd pay for an upgrade in carpeting. The investment in your family's fire protection may be slightly lower or higher, depending on the location and complexity of the home.

Q: What if my home will not be connected to a public water supply?

- A: Homes can be protected by automatic fire sprinklers in even the most remote areas. Several manufacturers offer self-contained water tanks to supply residential fire sprinkler systems. These tanks are designed to fit in your garage or another storage area of the home, and they hold enough water to comply with the National Fire Protection Association Standard 13D, *Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes*.

Q: How long should installation take? Can other construction work continue while the sprinklers are going in?

- A: Fire sprinkler installations are like electricity, plumbing or any other operational system in your home. The total time involved will depend on the size and complexity of your home.

Certain portions of the system (i.e. water piping) are more easily and cost-effectively installed in the earliest stages of construction, while the actual finish (i.e. installing the fire sprinkler devices, testing the system, etc.) will take place after the house is framed. Fire sprinkler systems are often completed prior to the other systems in your home, but other mechanical trades may work along side the sprinkler contractor, if necessary.

Q: How do I take care of my fire sprinkler system?

- A: A residential fire sprinkler system is basically maintenance free. The only testing required on a regular basis is opening the drain/test valve to check the alarm operation. The rest of the system is designed to operate properly for 20 years or more without any maintenance.

Some basic precautions to safeguard your fire sprinkler system are:

- Avoid painting or otherwise covering the fire sprinkler devices, as that will affect their sensitivity to heat.
- Do not hang decorations, plants or other objects from the sprinkler or piping.

Q: Will my insurance premiums go up?

- A: No. Generally insurance rates will go down because fire sprinklers will keep damage low. Shop around; the savings vary by insurance company.

HFSC Members

STEERING COMMITTEE



National Fire Protection Association



US Fire Administration

SPRINKLER MANUFACTURERS INDUSTRY FUND

Central Sprinkler Corporation • GEM Sprinkler Company
Kidde Fire Fighting (USA) • Reliable Automatic Sprinkler Co.
Star Sprinkler Corporation • Victaulic Fire Safety Company, LLC
The Viking Group

ASSOCIATE MEMBERS

API Fire Protection Group
Underwriters Laboratories Inc.



Home Fire Sprinkler[®]

COALITION

Improved Fire Protection Through Public Education

1 Batterymarch Park ■ Quincy, MA 02269-9101
1-888-635-7222 ■ www.homefiresprinkler.org

the future of **fire safety**
here today





UNDERSTANDING FIRE SPRINKLER PROTECTION FOR HOMES

Fire sprinkler systems provide powerful protection from fire. They work automatically and immediately; before a fire spreads. Sprinklers put water right where it is needed, slowing or stopping the flames and poisonous smoke, so people can get out safely.

Fire sprinkler systems have been saving lives and protecting property for more than 130 years. Over the past two decades, sprinklers have been specially adapted to simplify installation and use in homes. Today, you can find fire sprinklers in homes of every size and style.

“Fire sprinklers give me peace of mind, especially at night when my children are sleeping.” SANDRA KUHN, HOMEOWNER

The ideal time to install fire sprinkler systems is during new construction. Many homeowners opt to install, or retrofit, sprinklers when they remodel their homes.

You are at Greatest Danger from Fire at Home

According to the National Fire Protection Association (NFPA), more than eight out of 10 fire deaths happen at home. Many people don't realize how fast a home fire grows and spreads from room to room. Too often, people think they'll have plenty of time to get out.

Having fire sprinklers installed at home can save your life if fire strikes. In fact, when fire strikes at home, it can become deadly in as few as three minutes. Most fatal fires take place at night when people are sleeping. A fire sprinkler system is like having a firefighter on duty 24 hours a day.

Watch a video that demonstrates how fast a home fire can become deadly online at HomeFireSprinkler.org.

A Total System of Safety

Sprinkler systems are the ultimate home fire safety technology available today. Experts agree the most comprehensive protection from a home fire is a total system of safety:

- Prevention
- Early warning (working smoke alarms on every level)
- Quick Evacuation (well planned and practiced home fire drills)
- Suppression (fire sprinkler system)



Sidewall Sprinkler



Concealed Sprinkler



Pendent Sprinkler

HOW FIRE SPRINKLERS WORK

Fire sprinklers protect your home around the clock, automatically. Each sprinkler system is unique to the home where it's installed. Most fire sprinkler systems are connected to the household water main. If the water supply is from a well or if the water pressure is too low, a storage tank may be needed.

Fire sprinklers are linked throughout the home by a network of piping. Most home systems today use a strong, non-combustible plastic pipe known as CPVC. Just like plumbing, sprinkler piping is typically hidden behind walls and ceilings. In unfinished basements, you may be able to see the piping in the ceiling; and it may be copper rather than plastic.

There are several types of fire sprinklers made just for homes. They can be installed on walls or in ceilings. Some sprinklers are concealed by a plate. Home fire sprinklers are much smaller than the types of sprinklers used in commercial properties.

Heat Activates A Sprinkler, Not Smoke

Each sprinkler has a temperature-sensitive element and is individually activated by heat. Water flows from the sprinkler when the temperature reaches between 135°-165°F. In the vast majority of fires in sprinklered homes, only a single sprinkler will operate.

Smoke, cooking vapors or steam cannot cause home fire sprinklers to activate. Only the high temperature of a fire will operate the sprinkler.

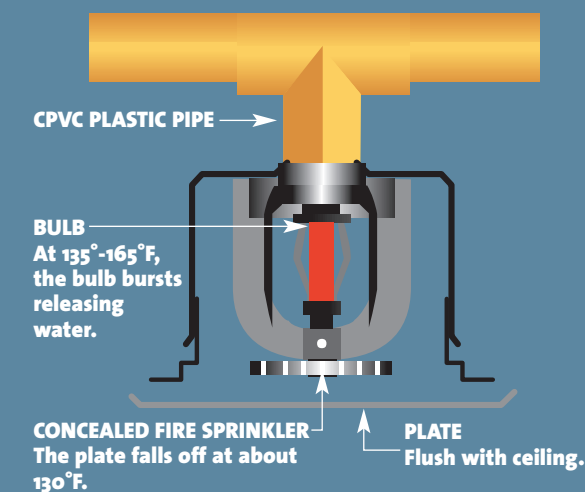
Maintenance is a Snap

Home fire sprinklers require very little maintenance. It's essential to keep the water valve turned on, so a simple visual inspection should be done routinely to ensure the valve is open. (Keeping the valve padlocked in the “on” position is a good idea.)

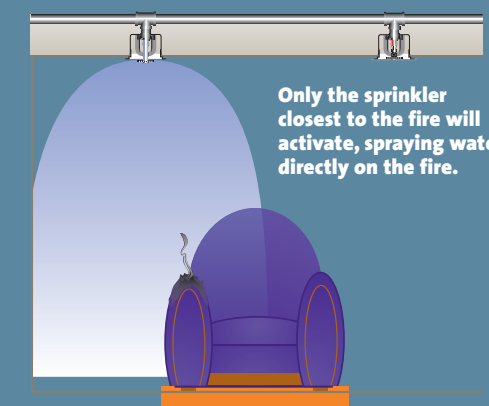
Inspect the pipes and sprinklers occasionally to make sure nothing is obstructing them.

Every home sprinkler system should have a water flow test on a regular basis. It's a simple test that can be done by the homeowner or a fire sprinkler contractor.

A SPRINKLER COVERS A MINIMUM 12 X 12 FOOT AREA. EXTENDED COVERAGE SPRINKLERS CAN COVER A MAXIMUM AREA OF 20 X 20 FEET.



SPRINKLERS ARE LINKED BY A NETWORK OF PIPING, TYPICALLY HIDDEN BEHIND WALLS AND CEILINGS AND USUALLY DRAWING UPON HOUSEHOLD WATER SOURCES.



“An electrical short started a fire in our house. That fire was so fast and furious. The sprinkler system activated immediately. Our house is still standing. We are all still alive including our pets.” JIM MCCOLLISTER, AZ



THE ADVANTAGES OF A HOME FIRE SPRINKLER SYSTEM

With Fire Sprinklers

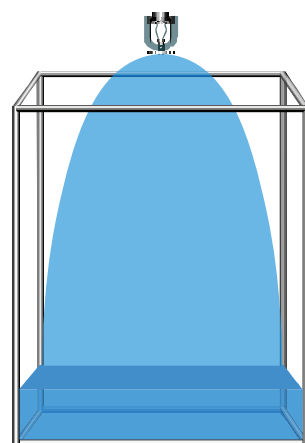
- The sprinkler closest to the fire activates
- Water contains or extinguishes fire
- Residents have time to safely escape
- Surrounding rooms are protected from damage

Fire sprinklers work so fast they often put out a home fire before the fire department arrives. Instead of launching a major fire suppression effort, arriving firefighters will simply turn off the sprinkler system and mop up the water.

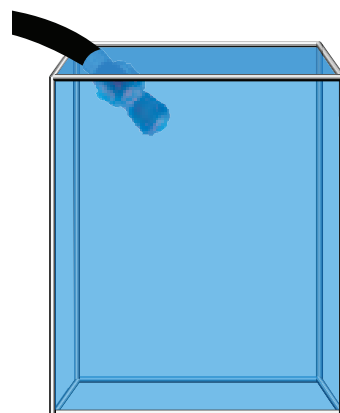
Without Fire Sprinklers

- Flames grow and move room to room
- Heat and toxic gases spread
- In as few as three minutes, the fire becomes deadly
- Flashover occurs and the gases and combustible materials burst into flames

It typically takes 9-12 minutes from the time a fire starts to the time the fire department arrives. In that time, the fire will be so advanced that firefighters will have to use high pressure hoses, applying water at 250 gallons per minute. Even if the family is lucky enough to get out unharmed, the home will likely be lost and the family displaced.



Sprinkler - 25 Gallons of Water/Minute



Fire Hose - 250 Gallons of Water/Minute

Learn more about how home fire sprinkler systems work online at HomeFireSprinkler.org.

HOME FIRE SPRINKLERS ARE A SMART CHOICE

Homebuilders know that homeowners are safety conscious. They want to protect their families and they want to secure their investment. That's why more and more homebuilders are offering their customers the option of installing a fire sprinkler system in new homes. A home fire sprinkler system is a smart choice. Unlike the many upgrades that are available in new construction – such as gourmet kitchen amenities, whirlpool tubs and high end flooring – only a home fire sprinkler system can save your life if there is a fire. And, the fire sprinkler system also protects your home and your valuables. No other upgrade can do that.

Nearly 70% of homeowners believe having a fire sprinkler system increases the value of a home, according to a recent survey conducted by Harris Interactive. Nearly half say a sprinklered home is more desirable than an unsprinklered home.

Affordable Fire Protection

The cost to install a fire sprinkler system is rolled into a new home mortgage, as are the plumbing and electrical systems.

Sprinklered homes qualify for valuable discounts on homeowner insurance premiums. Discounts vary by company and by state, so shop around to find the best discount in your area.

The cost to install a home fire sprinkler system also varies by region. Nationally on average, the cost to install sprinklers is 1 to 1 1/2 percent of the total cost of new construction. Retrofitting a home with sprinklers is typically higher. In many municipalities, increased installations have brought the cost down significantly.

Unmatched Peace of Mind

Home fire sprinklers are proven lifesavers. In Scottsdale, AZ, sprinklers have been required in new homes since 1986. A 15-year study of fire loss in Scottsdale since then found that no deaths occurred in the fires that took place in sprinklered homes during the period; 13 people died in unsprinklered homes.

Fire sprinklers also protect property and valuables. The Scottsdale study showed that where fires occurred in sprinklered homes, there was less fire damage and less water damage from suppression. The average loss per sprinklered single-family home fire was \$2,166, compared to \$45,019 for the unsprinklered home fires.



HARRIS INTERACTIVE® SURVEY FINDINGS

- 69 PERCENT OF HOMEOWNERS BELIEVE HAVING A FIRE SPRINKLER SYSTEM INCREASES THE VALUE OF A HOME.
- 38 PERCENT SAY THEY WOULD BE MORE LIKELY TO PURCHASE A NEW HOME WITH SPRINKLERS THAN WITHOUT.
- 45 PERCENT SAY A SPRINKLERED HOME IS MORE DESIRABLE THAN AN UNSPRINKLERED HOME, MOST OFTEN BECAUSE OF THE ADDED SAFETY PROVIDED BY THE SPRINKLERS (51 PERCENT).
- IF OFFERED, 36 PERCENT WOULD CHOOSE FIRE SPRINKLERS OVER HARDWOOD FLOORS; AND 35 PERCENT WOULD CHOOSE THEM OVER CABINET UPGRADES.
- FOR 43 PERCENT, THE ABILITY TO INCLUDE THE COST OF INSTALLING SPRINKLERS IN THE MORTGAGE IS AN INSTALLATION INCENTIVE.
- HOME BUILDERS WHO OFFER FIRE SPRINKLERS ARE SEEN BY HOMEOWNERS AS BEING “SAFETY CONCERNED” (70 PERCENT), “INNOVATIVE” (52 PERCENT) AND “CARING” (51 PERCENT).

NATIONAL SURVEY CONDUCTED IN DECEMBER 2005; COMMISSIONED BY HFSC

“We've lived in a sprinklered home for 25 years – nothing has made us feel safer.” JAN AND RICH GRATTON, CA



“IT'S COMFORTING TO KNOW THAT OUR TWO CHILDREN ARE LIVING IN A HOME PROTECTED WITH FIRE SPRINKLERS.”

RON HAZELTON
HFSC SPOKESPERSON

HOME IMPROVEMENT EDITOR,
ABC'S GOOD MORNING AMERICA

HOME FIRE SPRINKLER FAQS

If one sprinkler goes off, will they all go off?

No. Sprinklers activate independently; only the sprinkler(s) closest to the fire will activate. In most home fires only one sprinkler is needed to control a fire.

If I burn the toast will the sprinkler activate?

No. Fire sprinklers do not respond to smoke; they respond to the high temperature of a fire – about 135° to 165°F. Smoke caused by cooking or cigars cannot and will not cause a sprinkler to activate.

Will my sprinklers leak?

Sprinkler mishaps are generally less likely and less severe than conventional home plumbing system problems. Choose an experienced residential sprinkler contractor to install your system. Contractors follow national installation standards, which help ensure proper operation.

Is post-fire water damage from sprinklers worse than fire damage would be without sprinklers?

Fire damage and water from high-pressure fire hoses are far greater. A residential sprinkler flows 10-26 gallons of water per minute, for approximately 10 minutes (or less if the fire department turns the water off sooner). An uncontrolled fire will cause far greater fire destruction and smoke damage, requiring a tremendous amount of water from fire department hoses – more than 10 times the water per minute. The property loss in a sprinklered home fire is typically only a fraction of the loss in an unsprinklered home fire.

Won't the fire department be able to put out the fire and save my things?

From the time the fire starts, it typically takes about 9-12 minutes for the fire department to arrive. In that time, an uncontrolled fire will have grown and spread through the home, causing tremendous smoke and fire damage before the fire department can get there.

Will my sprinklers freeze in the winter?

Freezing is not a problem with proper installation. The national sprinkler installation standard provides guidance for proper installation in cold regions, including appropriate additional insulation and anti-freeze usage.

Since I have smoke alarms, why do I need fire sprinklers?

Smoke alarms are essential in every home, but they can only detect a fire. To be effective, residents must be willing and able to respond quickly to the alarm. Only fire sprinklers can detect the fire and automatically control or extinguish it, paving the way for residents to make a safe escape – and also protecting property and valuables. The best protection from fire is having both smoke alarms and a fire sprinkler system.

Are fire sprinklers difficult to maintain?

No. Home maintenance is simple. Regular flow tests should be conducted and homeowners can do these simple tests themselves or have the sprinkler contractor do it every year or so.

FREE RESOURCES FOR HOMEOWNERS

The Home Fire Sprinkler Coalition (HFSC) is a national, nonprofit organization dedicated to educating the public about the value and availability of fire sprinkler protection for homes. HFSC is non-commercial, and works with fire departments, local officials, sprinkler contractors and others to help increase awareness of home fire safety.



YOU CAN LEARN MORE ABOUT HOME FIRE SPRINKLER SYSTEMS ON THE NONPROFIT HOME FIRE SPRINKLER COALITION WEB SITE: HomeFireSprinkler.org, INCLUDING:

- ANIMATED FIRE SPRINKLER SYSTEM FEATURES
- COMPARISONS OF HOME FIRES WITH SPRINKLER SYSTEMS AND WITHOUT
- CHECKLIST FOR INSTALLING SPRINKLERS IN YOUR HOME
- HOW TO TALK TO YOUR BUILDER ABOUT INSTALLING A FIRE SPRINKLER SYSTEM
- HOW TO CHOOSE A QUALIFIED SPRINKLER CONTRACTOR

THERE IS NO COST DOWNLOAD THE MATERIALS ON HFSC'S WEB SITE.

FOR ADDITIONAL INFORMATION, CONTACT YOUR LOCAL FIRE DEPARTMENT'S PUBLIC EDUCATOR.

HFSC MEMBERS



This program is supported by Fire Prevention and Safety Grant funding through the U.S. Department of Homeland Security





FIRE SPRINKLER FACTS

- Eight of out 10 fire deaths occur in the home.
- Fire sprinklers save lives, reduce property loss and can even help cut homeowner insurance premiums.
- Home fire sprinklers can contain and may even extinguish a fire in less time than it would take the fire department to arrive on the scene.
- Installing both smoke alarms and a fire sprinkler system reduces the risk of home fire death by 82%, relative to having neither.
- Only the sprinkler closest to the fire will activate, spraying water directly on the fire. Ninety percent of fires are contained by the operation of just one sprinkler.*
- Nationally, on average, home fire sprinkler systems add 1% to 1.5% of the total building cost in new construction.
- Home fire sprinklers use only a small fraction of the water used by fire department hoses.
- Modern residential sprinklers are inconspicuous and can be mounted flush with walls or ceilings.
- For more information go to the Home Fire Sprinkler web site at: www.homefiresprinkler.org.

*Automatic Sprinklers: A 10-Year Study, Scottsdale, AZ