



FIRE SPRINKLERS

SAVING LIVES, BUDGETS AND WATER

AS MAYORS AND CITY OFFICIALS realize significant savings in lives, budget dollars and water conservation through the use of fire sprinkler systems, the trend to mandate their expanded use is growing. To date, more than 400 jurisdictions in the United States currently require fire sprinklers in single family homes; and this number is rising. Fire sprinklers make it possible to immediately halt raging fire events, save lives, diminish destruction, reduce demands on responders, and conserve water by extinguishing flames at onset. The ripple effect of extrapolated benefits includes less property damage, fewer events of homelessness from total losses, overall enhanced safety and security of constituents, higher home values and greater community appeal.

Fire is the largest single cause of property loss in the United States. According to the National Fire Protection Association (NFPA), fire damage caused \$7.4 billion in residential property loss in the U.S. in 2007. In 2010, this cost was reduced to \$6.9 billion, partially attributable to broader availability of fire sprinkler



Home sprinkler heads during installation.

systems. More than half of the residential fires took place in one- or two-family dwellings. Having a fire sprinkler system installed in homes like these is like having a firefighter on site and on duty 24 hours a day. Home fire sprinkler systems are commanding attention and being installed in thousands of neighborhoods throughout the country now because national residential model building codes require them in new construction, communities are passing ordinances insisting on them, developers are taking advantage of trade up incentives given for them, and homeowners are realizing the unparalleled life-safety benefits.

Examples of typical trade ups that are being observed for sprinklered developments and sub-divisions include streets with width reductions, allowances for additional units and increased hydrant spacing. When these trade ups are bundled together, they offer considerable savings

for builders. And in forward-thinking communities, there is a groundswell of support for the life-saving benefits of residential sprinklers.

SPRINKLERS REDUCE COSTS DURING FIRES

The National Institute of Standards and Technology (NIST) states that a home fire can reach deadly proportions in three minutes or less. Often, by the time fire trucks arrive, structures are engulfed, people are injured, surroundings are endangered and damage is excessive. Fire sprinklers significantly reduce losses and water usage in a fire. In a recent study, fires in homes with sprinklers averaged a total loss of \$14,000 versus an average loss of \$179,896 in homes without fire sprinklers. The homes with fire sprinklers used an average of 340 gallons of water per fire, while the homes without fire sprinklers used an average of 5,974 gallons of water per fire (*COMMUNITIES with HOME FIRE SPRINKLERS: The Experience in Bucks County, Pennsylvania, November 2011*). Fire sprinkler protection enables residents to gain precious opportunities to escape, while increasing the probability that flames may be snuffed out before emergency crews are at the scene.

Plastic pipe systems are installed as multipurpose, combined fire sprinkler and plumbing, or stand-alone systems and provide low cost installation in new construction or as retrofit systems in existing structures. Member companies of The Plastics Pipe Institute (PPI) make products that meet strict industry regulations for fire protection systems. Cross-linked polyethylene (PEX) and CPVC provide proven performance in fire sprinkler systems, and are tested and listed to meet the requirements of national standards that govern the design and installation of fire sprinkler systems including: NFPA 13D, UL 1821, NSF 14 and 61, and the IRC P2904 requirement. These products are easily installed by licensed plumbing contractors and fire professionals allowing for low cost installation ranging from 1 – 1.5% of construction costs.

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.



PLASTIC PIPE FOR SUSTAINABILITY

Plastic pipe systems provide builders and homeowners with a sustainable and environmentally responsible choice for plumbing systems, hydronic heating systems, and residential fire protection systems. Plastic pipe systems are durable (corrosion and abrasion resistant), cost-effective, require significantly less energy than metal systems to transport and install due to their light weight and flexibility, and provide consumers with a long and reliable service life.

Take action today to save more lives, reduce water loss and minimize expenses during fire emergencies. Discuss the benefits of mandating fire sprinkler systems in one and two family homes with your teams. And, help builders and contractors to become heroes, too, by providing good business incentives in your community.

