

## Structure

### EXTERIOR:

The goal of an effective wildfire protection plan is to keep the fire from coming dangerously close to any structure on the property. Once ignited, the structure itself can become a fire source that can generate wind-driven embers that will threaten neighboring properties. Post-fire studies have shown properties located less than 15 feet apart or those that share a roof are particularly vulnerable to ignition from neighboring structures. If a structure has combustible siding, such as wood, vinyl or other types of plastic, it is important to prevent the wildfire from coming close to, or in contact with, the building. If the siding ignites, flames can quickly spread up the wall and potentially break windows. Flames also can ignite the eaves, move into the stud cavity at a lap joint, and burn into the attic.

### INTERIOR:

If you have a common roof and shared attic space among multiple tenants – whether in an apartment complex or strip shopping center – fire can spread far more quickly and make everyone in the building vulnerable. Check with your local building department to find out about the fire separation capabilities in your building.

## Surroundings

Think of anything around or attached to a structure as a potential wick that could allow the fire to come dangerously close to your building. This might include a storage shed, newspaper or product display rack, playground equipment or containers used to store cleaning products, all of which under normal circumstances would allow a business to perform its operations. Remember, wind-driven embers from the fire, not the flames, are the biggest threat to properties during a wildfire. Once these embers land on a combustible material, the potential for the wildfire to spread is significantly greater.

Storage buildings, trash bins, pergolas, playground equipment, boats, RVs, and other combustible items can allow fire to reach the building. When possible, relocate these at least 30 feet from the business and other structures on the property. Choose noncombustible building materials when rebuilding or renovating. Relocate propane (LP) tanks at least 30 feet away from the building and other structures on the property. If relocation is not an option, create a 10-foot zone around the tank using low combustible materials such as rock, gravel mulch or irrigated lawn. An alternative solution is to enclose the tank using noncombustible materials.

# REDUCING WILDFIRE RISK

## Commercial



Businesses located in wildfire-prone areas face unique risks from these potentially destructive events.

The varied building styles and the presence of combustible materials used in business activities make it important to identify, understand and take steps to prevent or reduce these risks before a wildfire threatens. Whether you own or operate an apartment complex, convenience store, church, motel, restaurant or other retail establishment, the steps you take now will reduce the risk of costly repairs or rebuilding if a wildfire strikes. The following information is designed to address the unique risks facing small and mid-sized businesses in areas vulnerable to wildfire. Share this information with tenants and employees and increase the survivability of your business.



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## ROOF

Choose a Class A fire-rated roof covering. Keep the roof and gutters clear of debris. Businesses that share a roof are particularly vulnerable if the entire building is not well maintained.

## WINDOWS

Radiant heat from a wildfire can break single-pane windows; choose dual-pane windows with tempered glass for increased protection. Open windows can be entry points for embers. Educate tenants and employees about the importance of closing all windows before evacuating. Guidance on planting near windows is provided in the Defensible Space Section.

## DEFENSIBLE SPACE

Each zone in a defensible space plan acts as a layer of protection between your business and the approaching wildfire.

0-5 FEET (OR TO THE PROPERTY LINE):

This zone is closest to the business and it requires the most careful selection of vegetation and other materials. The objective is to reduce the chance that ignited vegetation or other combustible materials will be able to reach the building. Rock or gravel mulch and low growing plants or lawns are good choices for this zone.

AVOID PLANTS WITH THE FOLLOWING CHARACTERISTICS:

- 1. Generate ground litter from bark, leaves, or seeds that slough off
- 2. Have (very low moisture content) dead material within the plant
- 3. Have small branches and needles that can easily ignite
- 4. Have a high resin or volatile content

5-30 FEET (OR TO THE PROPERTY LINE):

Many businesses have vegetation islands. This arrangement is recommended because it makes it difficult for fire to reach the building by burning through a continuous path of vegetation. Lower branches in trees should be pruned and nearby shrubs (the ladder fuels) removed. The goal is to slow down and reduce the energy of the wildfire, and to reduce the risk that vegetation will ignite and generate embers that could be blown onto roofs or into vents.

30-100 FEET (OR TO THE PROPERTY LINE):

Wildfires burn up a slope faster and more intensely, with a longer flame length, than on flat ground. If your business is located mid-slope or at the top of a steep slope, but set back less than 15 feet for a single-story and 30 feet for two stories or higher, be more aggressive with your vegetation modification and maintenance plan and be more aware of the building materials used.

## VENTS

Attic and crawl space vents are vulnerable entry points for wind-driven embers. Cover with 1/8-inch metal mesh screens (usually the finest mesh allowed by the building code).

## ATTACHMENTS

Awnings, decks, patios and porches also can act as a wick bringing flames to the building. Even if you have noncombustible siding (e.g., stucco), a burning deck or other ignited combustible items close to the wall will provide a direct flame exposure to the doors, windows or sliding glass doors. Enclosing the bottom of elevated decks can be helpful if you need to store combustible materials there. Be sure to provide adequate ventilation to help avoid moisture problems. Educate tenants and employees about the importance of removing materials from the top of and underneath the deck area before evacuating.

