



GUIDELINE 418 DEFENSIBLE SPACE

Purpose:

Defensible space and fuel modification zone provisions are intended to mitigate the risk to life and structures from intrusion of fire from wildland fire exposures, fires from adjacent structures, and to mitigate fires from spreading to wildland fuels that may threaten to destroy life, overwhelm fire suppression capabilities, or result in large property loss. Home and building loss during wildfires occur from one or more of the three basic wildfire exposures: 1) Embers, 2) Radiant heat, and 3) Direct flame contact.

Proper installation, spacing and maintenance of plants and landscaping is one of the key elements in the survivability of a structure during a wildfire. This guideline is intended to supplement VCFD Standard 515 – Defensible Space and Fuel Modification Zone requirements and State Law. For information regarding prohibited plants, VCFD Plant Reference Guide, use of mulch and wood chips, or questions about defensible space in Ventura County, please visit VCFD.org or email us at fhpr@ventura.org.

Where Defensible Space Is Required:

All properties located within a State mapped Fire Hazard Severity Zone (FHSZ), or a local Hazardous Fire Area (HFA) as determined by the fire department, are required to provide defensible space in accordance with California Public Resource Code (PRC) 4291; California Government Code (GC) 51182; California Code of Regulations (CCR) Title 14, Section 1299.03; CCR Title 19, Section 3.07; and the current adopted edition of the Ventura County Fire Protection District's (VCFD) Ordinance. Maps of the FHSZs can be viewed at the CalFire web site at <https://egis.fire.ca.gov/FHSZ>.

Local Ordinance:

Ventura County Fire Protection District Ordinance is more restrictive than State laws. Property owners are required to provide a 100-foot defensible space on their property around any buildings, including buildings on neighboring properties. You are only responsible for the portion of the 100-foot zone that is on your property.

Properties without buildings are also subject to the 100-foot defensible space requirements if the property is less than 100-feet from any building on neighboring properties.

Defensible Space Zones:

Zones 1 and 2 currently make up the 100-feet of defensible space required by law (See Figure 1). Assembly Bill 3074, passed into law in 2020, requires a third zone for defensible space. This law requires the State's Board of Forestry and Fire Protection to develop the regulation for a new ember-resistant zone (Zone 0) within 0 to 5-feet of the building by January 1, 2023. The new Zone 0 requirements will be effective for all new buildings starting January 1, 2023, and for all existing buildings starting January 1, 2024. This may require property owners to adjust their existing landscaping, which may include reduction and/or removal of non-compliant vegetation and other items.

The intensity of wildfire fuel management varies within the 100-foot perimeter of the building, with more intense fuels reduction occurring closer to the building. Start at the building and work your way out to 100-feet or to your property line, whichever is closer.

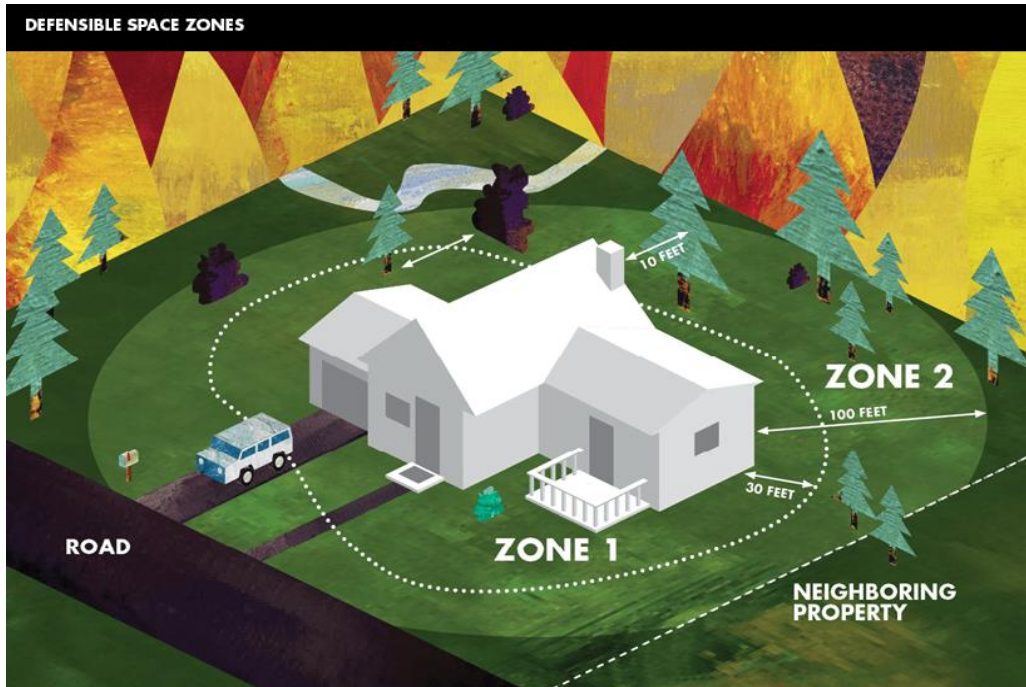


Figure 1

Zone 0 – Ember-Resistant Zone:

Zone 0 extends 5-feet from buildings, structures, decks, etc.

The ember-resistant zone is currently not required by law, but science has proven it to be the most important of all the defensible space zones. This zone includes the area under and around all attached decks and requires the most stringent wildfire fuel reduction. The ember-resistant zone is designed to keep fire or embers from igniting materials that can spread the fire to the building. The following provides guidance for this zone, which may change based on the regulations developed by the Board of Forestry and Fire Protection.

- Use hardscape like gravel, pavers, concrete and other non-combustible mulch materials.
Note: Combustible bark or mulch is prohibited in Zone 0 in accordance with current VCFD Ordinance.
- Limit plants in this area to low growing, non-woody, properly maintained and watered plants.
- Provide a minimum 5-6 foot clearance from eave and roof overhangs above plants.
- Remove plants underneath windows.
- Trim trees 5-10 feet away from sides of buildings.
- Limit combustible items (outdoor furniture, planters, etc.) on top of decks.
- Replace combustible fencing, gates, and arbors attached to the building with non-combustible alternatives.
- Consider relocating garbage and recycling containers outside this zone.
- Consider relocating boats, RVs, vehicles, and other combustible items outside this zone.

Zone 1 – Lean, Clean and Green Zone:

Zone 1 (VCFD Zone A) extends 30-feet from buildings, structures, decks, etc. or to your property line, whichever is closer. Zone 1 can extend to 50-feet for slopes exceeding 20% grade.

- Remove all dead plants, grass, and weeds (vegetation)
- Remove dead or dry leaves and pine needles from your yard, deck, porches, roof, and rain gutters.
- Keep a minimum 3-foot clear space below any tree overhanging the roof.
- Remove all branches within 10-feet of any chimney or stovepipe outlet.
- Trim trees regularly to keep branches a minimum of 10-feet from other trees.
- Do not allow a continuous tree canopy to reach the building.
- Create vertical space between grass, shrubs, and trees. (See Figure 2 and Table 3)
- Relocate firewood and lumber piles to Zone 2.
- Remove or prune flammable plants and shrubs near windows.
- Remove vegetation and items that could catch fire from around and under decks, balconies, and stairs.
- Create a separation between trees, shrubs, and items that could catch fire, such as patio furniture, wood piles, swing sets, etc.

Zone 2 – Reduce Fuel Zone:

Zone 2 (VCFD Zone B) extends 30-feet to 100-feet out from buildings, structures, decks, etc. or to your property line, whichever is closer.

- Cut or mow annual grass down to a maximum height of 3-inches.
- Create vertical space between grass, shrubs, and trees. (See Figure 2 and Table 3)
- Create horizontal space between shrubs and trees. (See Figure 3 and Table 3)
- Remove fallen leaves, needles, twigs, bark, cones, and small branches. However, they may be permitted to a maximum depth of 2-inches.
- All exposed firewood and lumber piles must have a minimum of 10-feet of clearance, down to bare mineral soil in all directions.
- In continuous tree canopies, remove understory and smaller trees.

Zone 1 and 2:

- “Outbuildings” and Liquid Propane Gas (LPG) storage tanks shall have a minimum 10-feet of clearance to bare mineral soil and no flammable vegetation for an additional 10-feet around their exterior.
- All cut vegetation and debris shall be properly disposed of in accordance with local laws and regulations. Do not relocate to or dump outside the 100-foot zone.
- Use of mulch and wood chips shall comply with VCFD Standard 517.

Note: All vegetation within the 0-100 foot zone is subject to defensible space laws and regulations. This includes ornamental plants, cultivated landscape plants, native plants, trees, shrubs, grasses, weeds, and wildland vegetation.

General Requirements for entire Parcel:

- Provide a minimum 13-foot 6-inch vertical clearance above all roads and driveways providing fire department access to buildings from the public way.
- Provide a minimum 3-foot clearance around all fire hydrants.
- Provide an approved spark arrestor or screen on all chimneys.

Plant and Tree Spacing:

The spacing between grass, shrubs, and trees is crucial to reduce the spread of wildfires. The spacing needed is determined by the type and size of shrubs and trees, as well as the slope of the land. For example, a property on a steep slope with larger vegetation requires greater spacing between trees and shrubs than a level property that has small, sparse vegetation.

See VCFD Standard 515 – Defensible Space and Fuel Modification Zones for specific requirements for plants, trees, allowable heights, and spacing requirements. VCFD Standard 515 Table 3 is reprinted below for reference.

VCFD FMZ Spacing Table 3 from VCFD Standard 515

Type of Vegetation	Max Height (H)	Max Area /diameter (W)	Slope % / Min Spacing (S)*
Ground Cover	6 inches	NA	NA
Mosaic Grouping of Ground Cover (GC)	18 inches	Groupings shall not exceed 500 sq ft without spacing (S) to next grouping	<20: 2 x GC height (H) 20-40: 4 x GC height (H) >40: 6 x GC height (H)
Single Shrub	6 feet	4 feet diameter	<20: 2 x shrub height (H) 20-40: 4 x shrub height (H) >40: 6 x shrub height (H)
Grouping of shrubs	4 feet	Groupings shall not exceed 50 sq ft without spacing (S) to next grouping	<20: 20 feet 20-40 40 feet >40 Not Allowed
Single Tree	NA	NA	<20: 10 feet 20-40: 20 feet >40: 30 feet

* Spacing Notes:

- a. Spacing is measured canopy to canopy at maturity.
- b. Ground cover up to 3-inches high, when approved, may be installed within the required spacing between groups. If natural or annual grasses are used, they shall be mowed to a maximum height of 3-inch stubble with clippings removed.
- c. Ground cover under tree canopies: When approved, the vertical clearance to the lowest branch of the tree canopy shall not be less than three times the height of ground cover. The horizontal clearance shall be 3-feet from the trunk of the tree.

Vertical Spacing:

- Remove all tree branches at least 6-feet from the ground.
- Allow extra vertical space between shrubs and trees. Lack of vertical space can allow a fire to move from the ground to the brush to the treetops like a ladder. This leads to more intense fire closer to buildings.
- To determine the proper vertical spacing between shrubs and the lowest branches of trees, use the formula below. (See Figure 2)

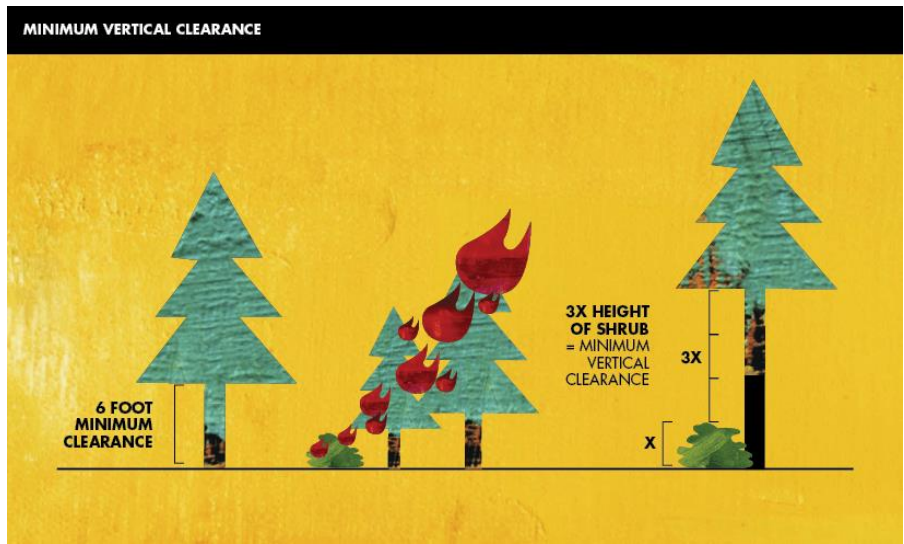


Figure 2

Example: A 4-foot shrub is growing near a tree. The vertical separation should be 3 times the height of the shrub. For a 4-foot tall shrub, the required vertical clearance would be 12-feet between the top of the shrub and the lowest tree branch ($4' \times 3 = 12'$).

Horizontal Spacing:

Horizontal spacing depends on the slope of the land and the height of the shrubs and/or trees. See Figure 3 to determine spacing requirements.

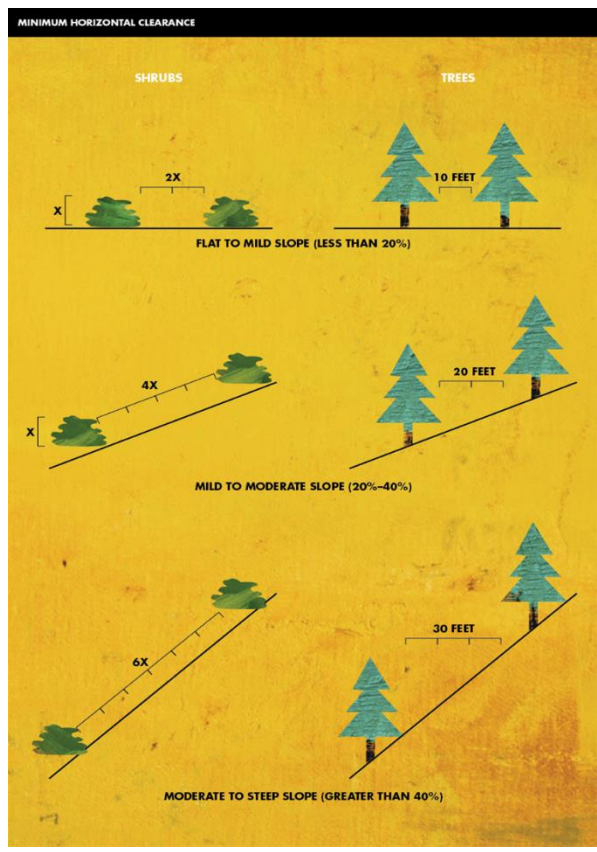


Figure 3

Fire Wise Landscaping:

Proper landscaping for wildfire isn't necessarily the same thing as a well-maintained yard. This type of landscaping focuses on plant characteristics, properties, and maintenance to resist the spread of fire to your buildings.

The good news is that you don't need to spend a lot of money to make your landscape wildfire resilient and reduce the risk to your home. Through proper planning and routine maintenance, you can conserve water and create a beautiful landscape.

Fire-resistant does not mean fireproof! Even fire-resistant plants will burn if not well maintained. Keep your plants healthy with appropriate water, proper pruning, and removal of dead material.

**Landscape Plans:**

Installation of new landscaping is the starting point to make sure correct plants and trees are selected and proper spacing is provided and maintained. Please see VCFD Guideline 416 for additional information on when landscape plans are required to be reviewed and approved by the Fire Department.

Home Hardening:

An important part of defensible space is to limit the intrusion of embers and flame into the home and buildings. Property owners can take further advantage of proper defensible space by hardening their home and buildings. Areas to review and upgrade include roofs, gutters, eaves, vents, walls, siding, trim boards, windows, door openings, decks, and patio covers.

For more information regarding home hardening, please visit VCFD.org.