



Rancho Cucamonga Fire Protection District

Fire Construction Services

Landscaping Guidelines for Projects Located in the Wildland Urban Interface Fire Area

SECTION 703 VEGETATION MANAGEMENT

703.1 Objective. Provisions of this section are intended to manage vegetative fuels in order to slow the advancement of fire fronts and to prevent structures from being ignited by fires moving through vegetation.

703.2 Vegetation management zones. In order to qualify as a conforming defensible space for the purpose of this standard, vegetation management zones in compliance with this section shall be provided and maintained for all structures where required by this standard. Required distances shall be measured on a horizontal plane as shown in figure 703.2. Required distances may be increased by the fire code official when a site-specific analysis reveals conditions that warrant additional precautions.

703.2.1 Vegetation Management Zone 1 (0-50 feet from the structure) – Fuel Modification Zone. This area is closest to a structure. It is measured from the exterior walls of the structure or from the most distal point of a combustible projection, an attached accessory structure, or an accessory structure within 10 feet of a habitable structure. It provides the best protection against the high radiant heat produced by a wildfire. It also provides a generally open area in which fire suppression forces can operate during wildfire events. This zone is a level or level-graded area around the structure. It is measured from the exterior walls of the structure or from the most distal point of any attached combustible unenclosed accessory structure or combustible projection. Vegetation in this zone is limited to ground covers, green lawns, and a small number of ornamental plants and trees selected from the approved plant list. Specific requirements for this zone include:

1. Complete removal of fire prone, undesirable plant species is required.
2. Xeriscape™ designs, where compatible, and hardscape such as concrete, rock, pavers, and similar non-combustible features are encouraged.
3. Focus should be on approved ground covers and lawns that shall be maintained at a height that does not exceed 4 inches.
4. Vegetation and combustible ground covers (mulch, bark, wood chips, etc) are not permitted within 12 inches of structures.
5. Plants should be low-growing and well-irrigated and shall be selected from the approved plant list. Plants shall be single specimens or a grouping not exceeding three plants. Mature height of plants shall not exceed 18 inches. At mature growth, single plants or groupings of plants shall be separated from each other by at least 5 feet. Plants shall not be located under vents or windows or within five feet to either side of a window. Single specimens of plants or a grouping not exceeding three plants are allowed under mature trees.
6. Trees shall be single specimens or groupings of not more than three trees selected from the approved plant list. Trees are to be planted such that the mature canopies will be at least 10 feet from the exterior walls of the structure or from the most distal point of a combustible projection, an attached accessory structure, or an accessory structure within 10 feet of a habitable building. Trees shall be spaced such that the perimeters of the mature canopies will be at least 20 feet apart.
7. Trees shall be maintained such that the branches and limbs closest to the ground are pruned to a height from the ground that is equal to 1/3 the overall height of the tree or six feet from the ground, whichever is higher.

8. An automatic irrigation system is required. Areas inside the drip line of native oak trees shall not be irrigated.
9. Continual maintenance including ongoing removal of undesirable combustible vegetation, removal of dead woody material and dead and dry leaves from the plants, replacement of dead or dying plantings, functional tests of the irrigation system, and regular trimming and pruning to reduce fuel loads and to inhibit the creation of a vertical continuity (fuel ladder) are required in this zone.

703.2.2 Vegetation Management Zone 2 (51-100 feet from the structure) – Fuel Reduction Zone. Maintain a reasonably open character in this area. This is a transition area between the strict requirements of Zone 1 and the undisturbed native vegetation. The requirements for this zone are:

1. Thinning the native vegetation to a point where a 50% open space is created.
2. Removal of all dead, woody debris.
3. If native shrub and chaparral is located within a tree's drip line, the lowest branch of the tree shall be a distance from the ground of at least three times the height of the shrub/chaparral or 10 feet, whichever is greater.

Note: Allowances for the needs of protected species and habitats will be considered in this zone.

703.2.3 Vegetation Management Zone 3 (More than 100 feet from the structure) – Site-Specific Modification Zone. This zone is furthest from the structure. Fuel modification in this zone is largely site-specific and driven by setbacks, slopes, and type of native vegetation. When construction is proposed within 200 feet, measured along a horizontal plane, of slopes greater than 30%, defensible space, vegetation management, and fuel reduction shall be determined on a site-specific basis. An approved fire spread model must be used to determine the dimensions of the vegetation management zones and the vegetation limitations in each zone. As an alternative to using a fire spread model, fuel management for a horizontal distance of at least 200 feet shall be provided. The first 50 feet from the structure shall comply with the requirements for Vegetation Management Zone 1 and the remaining 150 feet shall comply with the requirements for Vegetation Management Zone 2.

703.2.4 Community Vegetation Management. Where an undeveloped or vacant parcel abuts a mandated fuel modification zone, the property owner of the undeveloped or vacant parcel shall provide fuel modification and reduction consistent with the requirements of Vegetation Management Zone 2 for a distance of 50 feet from the property line measured from the property line toward the interior of the parcel.

703.2.5 Existing Mature Trees. Mature trees located within the Fuel Modification Zone of homes and other structures in the wildland-urban interface fire area where the property lines of the parcel do not abut native vegetation shall be in accordance with this section.

703.2.5.1 Trees identified on the approved plant list as fire resistant shall be maintained in accordance with all of the following:

1. Branches and limbs closest to the ground shall be pruned to a height from the ground that is equal to 1/3 the overall height of the tree or six feet from the ground, whichever is higher.
2. No part of a tree shall extend within 10 feet of an outlet for a chimney, stovepipe, or other heat vent.
3. No part of a tree shall overhang any portion of a habitable building, combustible projection, attached accessory structure, or an accessory structure within 10 feet of a habitable building.
4. The mature canopy of a fire resistant tree shall be separated from the mature canopy of another fire resistant tree by a distance of at least 10 feet and from the mature canopy of a fire non-fire resistant tree by a distance of at least 30 feet.

703.2.5.2 Trees that are not identified as fire resistant shall be maintained in accordance with all of the following:

1. Branches and limbs closest to the ground shall be pruned to a height from the ground that is equal to 1/3 the overall height of the tree or six feet from the ground, whichever is higher.
2. No part of a tree shall extend within 30 feet of an outlet for a chimney, stovepipe, or other heat vent.
3. No part of a tree shall be within 10 feet of any portion of a structure.
4. The mature canopy of a non-fire resistant tree shall be separated from the mature canopy of all other trees by a distance of at least 30 feet.
5. Plants, shrubs, and groundcovers shall not be located within the drip line of the canopy.

703.3 Slopes greater than 30%. When construction is proposed within 200 feet, measured along a horizontal plane, of slopes greater than 30%, defensible space, vegetation management, and fuel reduction shall be determined on a site-specific basis. An approved fire spread model must be used to determine the dimensions of the vegetation management zones and the vegetation limitations in each zone.

703.4 Environmental preservation. Vegetation management shall take into consideration and prevent as completely as possible creating conditions where the likelihood of erosion and/or slope instability is increased as a result of fuel modification and fuel reduction. Thinning of native vegetation shall take into consideration and preserve where possible, and in accordance with applicable regulations, protected habitats and species.

703.5 Clearance of brush or vegetative growth from roadways.

Areas within 30 feet on each side of portions of fire apparatus access roads and driveways shall be maintained free of non fire-resistive vegetation growth.

Exception: Single specimens of trees, ornamental vegetative fuels, cultivated ground cover, or similar plants provided they do not form a means of readily transmitting fire.

703.6 Clearance of brush and vegetative growth from electrical transmission and distribution lines.

Clearance of brush and vegetative growth from electrical transmission and distribution lines shall be in accordance with Section 703.6.

Note: Section 703.6 does not authorize persons not having legal right of entry to enter on or damage the property of others without consent of the owner.

703.6.1 Support clearance. Persons owning, controlling, operating or maintaining electrical transmission or distribution lines shall have an approved program in place that identifies poles or towers with equipment and hardware types that have a history of becoming an ignition source, and provides at all times a combustible-free space consisting of a clearing of not less than 10 feet in each direction from the outer circumference of such pole or tower.

Exception: Lines used exclusively as telephone, telegraph, messenger call, alarm transmission, or other lines classed as communication circuits by a public utility.

703.6.2 Trimming clearance. Clearances between vegetation and electrical lines at the time of trimming shall be provided in accordance with Table 703.6.2. The radial clearances shown below are minimum clearances that shall be established, at time of trimming, between the vegetation and the energized conductors and associated live parts.

Exception: The fire code official is authorized to establish minimum clearances different than those specified by Table 703.6.2 when evidence substantiating such other clearances is submitted to and approved by the fire code official.

**TABLE 703.6.2
MINIMUM CLEARANCES BETWEEN VEGETATION
AND ELECTRICAL LINES AT TIME OF TRIMMING**

LINE VOLTAGE	MINIMUM RADIAL CLEARANCE FROM CONDUCTOR (feet)
2,400-72,000	4
72,001-110,000	6
110,001-300,000	10
300,001 or more	15

703.6.3 Minimum clearance to be maintained. Clearances not less than those established by Table 703.6.3 shall be maintained at all times. The site-specific clearance achieved, at time of pruning, shall vary based on species growth rates, the utility company-specific trim cycle, the potential line sway due to wind, line sag due to electrical loading and ambient temperature, and the tree's location in proximity to the high voltage lines.

Exception: The fire code official is authorized to establish minimum clearances different than those specified by Table 703.6.3 when evidence substantiating such other clearances is submitted to and approved by the fire code official.

**TABLE 703.6.3
MINIMUM CLEARANCES BETWEEN VEGETATION
AND ELECTRICAL LINES TO BE MAINTAINED**

LINE VOLTAGE	MINIMUM CLEARANCE (inches)
750-35,000	6
35,001-60,000	12
60,001-115,000	19
115,001-230,000	30.5
230,001-500,000	115

703.6.4 Electrical power line emergencies. During emergencies, the utility shall perform the required work to the extent necessary to clear the hazard. An emergency can include situations such as trees falling into power lines, or trees in violation of Table 703.6.3.

703.7 Correction of condition. The fire code official is authorized to give notice to the owner of the property on which conditions regulated by Section 703 exist to correct such conditions. If the owner fails to correct such conditions, the fire code official is authorized to cause the same to be done and seek cost recovery through all legally available means or make the expense of such correction a lien on the property where such condition exists.

**SECTION 704
MAINTENANCE OF REQUIRED VEGETATION MANAGEMENT**

704.1 General. Vegetation management required by Section 703 shall be maintained in accordance with Section 704.

704.2 Responsibility. Persons owning, leasing, controlling, operating, or maintaining buildings or structures are responsible for maintenance of the vegetation management zones. Vegetation management zones shall at all times be maintained and kept in compliance with Section 703. Maintenance shall include modifying or removing non fire-resistive vegetation and keeping leaves, needles, and other dead vegetative material regularly removed from trees, shrubs, ground covers, native vegetation, and roofs of buildings and structures.