Previously approved Fuel Modification Guidelines under Reso No. 89.104

Fire Hazard

The Safety Elements of the Orange County General Plan and Aliso Creek Corridor Specific Plan include major portions of the canyon and hillsides within a high fire hazard classification.

Major criteria utilized to establish the classification include (1) slopes over 30 percent; (2) medium to heavy fuel loading, predominantly of the coastal sage scrub and chaparral variety; and (3) frequent critical fire hazard weather conditions. The high fire hazard designation is based on the State Division of Forestry's Fire Hazard Classification System for California's Wildlands.

POLICIES

Geologic Hazards

1. In areas of new development along the ocean front, structures should be set back a sufficient distance from the bluff edge to be safe from the threat of bluff erosion for a minimum of 50 years. A geologic report could be required by the City in order to make this determination.

2. Within the required blufftop setback, drought-tolerant vegetation should be required.

3. Development and activity of any kind beyond the required bluff top setback should be constructed in a manner to insure that all surface and subsurface drainage will not contribute to the erosion of the bluff face or the stability of the bluff itself.

4. No development should be permitted on the bluff face, except for staircases or accessways to provide public beach access. Drainpipes should be allowed only where no other less environmentally damaging drain system is feasible and the drainpipes are designed and placed to minimize impacts to the bluff face, toe, and beach. Drainage devices extending over the bluff face should not be permitted if the property can be drained away from the bluff face.

Fire Hazards

5. Provide appropriate fire protection for structures in high fire-potential areas by using fire-resistant building materials and adequate setbacks when required on natural slopes. The Fire Prevention Planning Task Force Report and Fuel Modification Program developed for the Monarch Point subdivision should be used as the basis for fire-prevention,

subject to the following guidelines and as described on the Fuel Modification exhibits.

6. Fuel Modification shall be included within the development boundary edge shown on Figure 3.

Fuel Modification Guidelines

The following Section is intended to provide guidelines for required and proposed fuel modification.

a. Hillside Areas

Fire hazard potentials shall be determined for projects proposed within the hillside areas by the Fire Department working in conjunction with a landscape architect. Factors such as types and moisture content of existing vegetation, prevailing winds, and topography shall be used to determine areas of fire hazard potential. Areas shall be ranked and mapped to identify fire prevention treatments and fuel modification zones.

For example, low fire hazard areas are typically located where existing vegetation has a year round high moisture content and the topography is relatively flat. Steep narrow canyons have a much higher fire hazard potential because heat and winds concentrate to drive the fire upwards, thereby creating a "chimney effect".

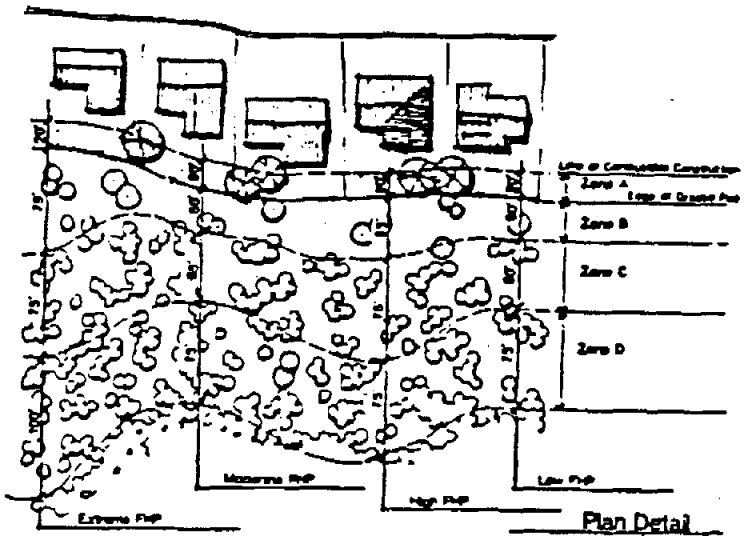
It is recommended that new development include a combination of required building material such as tile roof treatments, setback restrictions for combustible construction, irrigated buffer zones, and graduated fuel modification zones which entail selective thinning to control the heat and intensity of wildland fires. The minimum amount of native vegetation shall be selectively thinned to control the heat and intensity of wildland fires as they approach a residential area while preserving to the maximum extent feasible the quality of the natural areas surrounding the site.

(1) No combustible structures including, but not limited to, houses, wood decks, sheds, gazebos, and wood fences should be located within the 20-foot minimum width of Zone A. Irrigation systems must be installed and operated within this setback to ensure a reasonable moisture content in planted areas. Woody plants and tall trees should be discouraged.

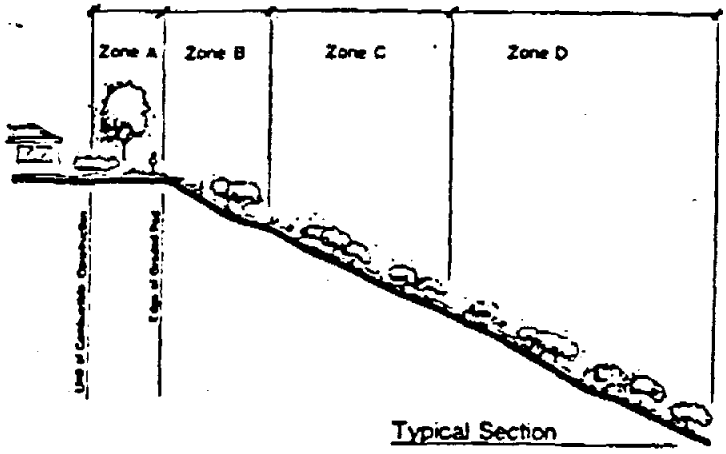
Fuel Modification Zone Dimensions

FHP Rating	Zone A	Zone B	Zone C	Zone D
Low FHP	20'	50'	50'	75'
Moderate FHP	20'	50'	65'	75'
High FHP	20'	65'	75'	75'
Extreme FHP	20'	75'	75'	100'

All measurements are to be made horizontally



Plan Detail



Typical Section

FUEL MODIFICATION EXHIBITS

(2) Fuel Modification Plans, substantially in compliance with the Fuel Modification Exhibits, should be prepared, when appropriate, as a condition of development to protect as much of the existing native vegetation as possible while providing reasonable protection for residential structures from fire hazards. Thinning of no more than 30% of native vegetation should extend beyond 170 feet from the outward edge of residential structures (or 150 feet from the 20-foot backyard setback) in extreme fire hazard potential areas. Fuel modification should not occur beyond 250 feet from the 20-foot backyard setback in the extremely hazardous zones. Fuel modification in low fire hazard potential areas should not extend more than 175 feet. Minimal irrigation during dry periods and fire repressant sprinklers for native vegetation are preferred methods to reduce the width or area of fuel modification.

The intent of the Fuel Modification area is not to become a static 250-foot wide band surrounding development, but rather an undulating width that reflects topography and fire hazard potential. The band should be as narrow as possible to protect proposed structures, but should not be wider than 250 feet in extremely hazardous areas.

(3) A Fuel Modification Plan should be subject to City review and approval prior to obtaining any building or grading permits. The Plan should identify appropriate setbacks and widths of fuel modification, amounts and types of vegetation to be removed and retained, and specify proposed irrigation methods to reduce the risk of fire in hillside areas.

(4) Access roads, trails or fire roads may be located within the fuel modification areas to reduce alteration of native vegetation.

(5) Where appropriate, as a condition of development, project developers shall record deed restrictions that acknowledge the fire hazard potential and assume responsibility for maintenance of fuel modification zones and programs.

b. Urban Fringe

The risk of fire at the base of hills adjacent to the existing urban area tends to be substantially less than that at the tops and upper slopes of ridges because fire normally accelerates upslope. Therefore, a limit for fuel modification in this area should be 150 feet from any habitable structure. In no event shall grading occur in the "Open Space" area and any vegetative thinning and/or replanting should be limited to within 150 feet of the structure. Likewise, this is the preferred maximum distance for fuel modification, but flexibility for narrower widths is appropriate.

POLICIES

1. Where native specimen vegetation is retained within fuel modification areas, these areas should be properly maintained to minimize fire risk.

2. Provide fuel breaks necessary for the protection of life and property as determined by the Fire Chief for community areas. Fuel modification should be limited to zones established adjacent to proposed or existing development. Graduated clearing and trimming should be utilized within these zones to provide a transition between undisturbed wildland areas and the development edge. Clearing or removal of native vegetation for fuel modification purposes should be minimized by placement of roads, trails, and other such man-made features between the development and wildland areas. To minimize fuel modification area, other techniques (such as perimeter roads, techniques using fire resistant materials, elimination of wood balconies and decks, fire retardant siding and tile roofs) should be incorporated in the design and development of projects.