

## **INFORMATION BULLETIN**

### **SUBDIVISION REQUIREMENTS**

#### **QUESTIONS TO BE ANSWERED:**

1. Will the proposed project be detrimental to the health, safety and general welfare of persons residing in the neighborhood of such proposed use?
2. Will the proposed use be injurious or detrimental to general welfare of the City?
3. Will the use be consistent with the goals and policies established by the General Plan and the Fire Code?
4. Will the project design be consistent with the fire safety guidelines, as established by ordinance Chapter 17.32, Subdivision Design?
5. Should “no” be the answer to any of the four questions above, then the project would not be exempt from the categorical requirements of the California Environmental Quality Act guidelines, pursuant to Section 15332.

#### **GENERAL REQUIREMENTS:**

1. Street side and on site fire hydrants are to be installed in accordance with the California Fire Code, locations to be approved by the Fire Department. Fire hydrants shall have a fire flow complying with Appendix IIIA of the California Fire Code, plus meet the hourly demand for the area. Spacing of fire hydrants shall be as per California Fire Code. A blue reflective dot shall be placed in the street, out from the fire hydrant.
2. A 20-foot all-weather surface road shall be installed and remain serviceable prior to any vertical construction. Fire hydrants shall also be installed and fire flow available for fire fighting purposes during construction.
3. Cul-de-sacs shall not exceed 600 feet in length, and shall have a turn-around with a radius of at least 50 feet, stub streets that are longer than the width or length of 200 feet shall have a temporary turnaround at the end thereof.

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EXCEPTION: If dwellings within the subdivision are provided with a residential fire sprinkler system, then the cul-de-sac length can be extended to a length approved by the Fire Marshal. Emergency vehicle access (EVA) may be necessary depending on location of subdivision and length of cul-de-sac.

4. One-inch lead from water main is required for sprinklered home sites.

5. Street standards are:

- 32 feet – no parking
- 36 feet – parking on one side
- 40 feet – parking on both sides

Fire sprinklers can help reduce street widths.

6. Driveways over 150 feet in length will require a turnaround, as per Fire Department Specifications. Driveways over 150 feet in length will also need to be 20 feet wide, and not have a grade greater than 12%. Residential sprinkler systems may be required depending on the turn-around capabilities.

NOTE: Flexibility to the turnaround can be provided should the home be provided with a residential fire sprinkler system.

7. Any flag lot where the building envelope is greater than 250 feet from a fire hydrant will need to have the home install a residential sprinkler system. A fire hydrant would still be required within 500 feet when the home has a residential sprinkler system.

8. Subdivisions with 50 parcels or occupied by 150 persons or more shall be provided with at least two (2) approved, public paved ingress and egress routes. Should the subdivision be provided with residential sprinkler systems, then the number of parcels may be increased as determined by the Fire Marshal.

9. For evacuation concerns, one lane can exit 1,800 cars per hour, or 30 cars per minute. For stacking of vehicles, use 25 feet per car.

10. Brush piles created from site development and right-of-way clearing will not be allowed to remain through the fire season.

11. The burning of construction debris is prohibited. All such material shall be disposed of by transporting to an acceptable landfill.

12. All highly combustible native vegetation shall be cleared 90 percent of the canopy area, for a distance of 100 feet from the building site. An additional 100-foot clearance may be necessary with 50 percent clearance of the canopy in the very high fire severity zone.

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13. Roads and driveways shall not exceed 12 percent in grade.
14. Access to open spaces may be necessary for fire suppression. When required by the Fire Department, a 15 foot-wide concrete pad shall be provided as shown in Construction Standard Nos. 630.00 and 631.00.
15. Bridges shall be a minimum of 28 feet wide, as shown by Construction Standard No. 110.00, and shall comply with American Association of State Highway and Transportation Officials.
16. Subdivisions may need to donate land for a Fire Station location and/or construct a fire station.
17. Turning radius is 29 feet inside and 45 feet outside.
18. Dead-ends may be used, when approved by the Fire Department. A hammer head "T", with a 80-foot width and 30-foot depth must be constructed at the dead-end. This turn-around will need to be in an easement. If all buildings are fire sprinklered, the dimensions could be reduced to 60 feet wide, and 20 feet deep.
19. Where address numbers are not plainly visible from the street, signage shall be provided at the road frontage, displaying the addresses of home(s) down the driveway.
20. "No Parking" – signage and location as per the Fire Marshal
21. Mechanical gates shall comply with the following:
  - A. All vehicular gates must be equipped with a Knox key switch which is mounted so access is readily available to a driver seated within an automobile. This Knox switch will provide an electric override for the gate. The electronic key pad shall be a type which is controlled by the use of a four-digit code. The device shall be programmed to allow access when an emergency code is entered. The precise code shall be provided by the Police Department. This code shall not be altered.
  - B. All vehicular gates must be designed so that when the electricity is off, the mechanism becomes disengaged and the gate can be manually pushed open.
  - C. A Knox box shall be installed in a secured fashion within the immediate vicinity of the exterior side of any vehicular gate, to the satisfaction of the Redding Fire Department. Maintained within the box at all times shall be a key, code or similar device which will provide access to the control mechanism in the event of a malfunction. Also maintained within the box, shall be a written description of how to access and disengage the control mechanism.

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- D. A pedestrian gate shall be installed adjacent to a vehicular gate. A key, code or similar device providing access to the pedestrian gate shall also be maintained within the knox box.
- E. All vehicular gates shall have a minimum opening clearance of 15 feet.
- F. Any overhead appendages shall be constructed to provide an unobstructed vertical clearance of not less than 13 feet 6 inches (UFC 10.207 F).
- G. A vehicular gate which is manned on a 24-hour, 7-day per week basis by a person capable of providing immediate access to emergency service personnel shall be exempt from Regulation A.
- H. Before final approval is given, a representative from the Fire, Planning and Police Departments must inspect and test the access control for compliance to the regulations.
- I. From the street to the gate, a 35-foot distance needs to be available for fire engine staging.

***ADDITIONAL COMMENTS FOR THE VERY HIGH FIRE SEVERITY ZONE AREA:***

1. A vegetation fuel management plan shall be submitted and approved by the Redding Fire Department. Additionally, ongoing maintenance of the fuel managed area shall be the responsibility of a maintenance association or a vegetation management district. The maintenance association document shall provide for maintenance of the area, and call out a stipulation, that in the event funds are insufficient to cover maintenance, an emergency assessment shall be levied against the property owners to cover the cost of the maintenance. An agreement is to be entered into with the City and approved by the City Attorney's office, granting the City the right to enter the open space area and cause the work to be done, in the event the Association does not perform. The developer shall be responsible for vegetation maintenance for the first three (3) years.
2. Approved spark arresters shall be required on all chimneys, flues and stove pipes, with a maximum ½" opening.
3. Roof material on all buildings shall be of a Class A rating. For roof coverings where the profile allows a space between the roof covering and sheathing, the space at the eaves end must be fire stopped to keep out flames or embers.
4. Wood fences, excluding posts, shall be prohibited adjacent to open space areas. A fence may be provided, but it must be of non-combustible construction. Additionally, the fence 10 feet perpendicular from the non-combustible fencing adjacent to open space will also

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need to be non-combustible. NOTE: Vinyl is considered combustible.

5. Should an emergency vehicle access (EVA) road be required by the Fire Department, the road shall be of all-weather surface, 20-feet wide. If the grade is greater than 8 percent, then it shall be paved. Emergency vehicle access roads shall not exceed 12 percent in grade. Brush shall be removed to 30 feet on both sides of the EVA, at 80 percent of canopy. **Vehicle access roads shall be maintained by an association or developer.**
6. Fire Department access will be required to those areas, such as open spaces or green belts that are landlocked. Access shall be a concrete path, which is 15 feet wide, and gated with a Fire Department lock on the gate.
7. Any LPG tank(s) shall be securely fastened to a concrete pad.
8. Building construction which abuts open vegetation area, open space easements or dedication, including accessory buildings, shall meet the following minimum construction requirements:
  - A. Residential sprinklers shall be installed in habitable structures.
  - B. Any projection from the structures, including, but not limited to, eaves, balconies and patio covers shall be enclosed on the exterior sides and/or underside with materials approved for one-hour fire resistant construction to prevent heat from exterior fires from being trapped underneath the projection.
  - C. Structures constructed in such a manner that they are suspended on piers or pilings over the hillside, shall be of non-combustible construction, fire retardant treated wood, heavy timber, or enclosed on the sides with materials approved for one-hour fire resistant construction on the exterior side in such a manner as to prevent the underside of the structure from being subject to heat or flame from the hillside below.
  - D. Venting shall not be located on the downhill side of the structure when California Building Code venting regulations can be met without installation of downhill venting. When attic and underfloor vents are necessary on buildings, they shall be louvered and screened with 1/4-inch metal mesh screen to prevent entry of sparks or burning embers. Turbine attic vents shall be equipped to allow one-way direction only; they shall not free spin in both directions.
  - E. Siding shall be non-combustible and the eaves shall be protected with materials approved for one-hour fire resistant construction on the exterior side.
  - F. Skylights shall be of tempered glass, or dual panel, except when the structure is protected with a fire sprinkler system.

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- G. Gutters shall be constructed of non-combustible material and provided with a means to prevent the accumulation of leaves and debris.
- H. Exterior windows, window walls, glazed doors and glazed openings with exterior doors shall be insulated glass units with a minimum of one tempered pane, either in or out, or glass blocks, or have a fire resistive rating of not less than 20 minutes, or other assemblies as approved by the City of Redding Building and Fire Departments. Glazing frames made of vinyl materials shall have welded corners, metal reinforcement in the interlock area and display the ANSI/AAMA/NWWDA.
- I. Roofs shall be in compliance with the California Building Code and shall have a Class A roof assembly.

NOTE: Please refer to Fire Safe Building Construction and Methods for Wildland Urban Interface Fire Areas Application Manual.

- 9. A vegetative management/fuel-reduction plan for all open-space areas shall be prepared by a registered forester or other qualified professional. The plan shall be prepared for the entire subdivision, and submitted with the improvement plans. In general, the objectives of the plan will be to manage vegetation and reduce fuel loads as follows:

- 1. **ZONE 1:** That part of the subdivision approved for development with slopes of 20 percent or less. At the time of construction, additional fuel-load reduction consistent with Zone 1 standards shall occur to provide a 100-foot setback of the residence from the Zone 2 area.

**ZONE 2:** A 100-foot-wide band of wildland area immediately adjacent to Zone 1.

- 2. **ZONE 1: Reduce Fuel Load Area**  
Remove 80 percent to 90 percent of existing brush. Existing trees, three inches in diameter or greater, are to remain except in fill areas and roads. Additional trees may be removed from the building site as necessary when houses are constructed. The Zone 1 area shall be provided on both sides of an emergency vehicle access route for a distance of thirty (30) feet. Trees shall be limbed up to eight feet high in the Zone 1 and 2 areas.

**ZONE 2: Reduce Fuel Load Area**  
Remove vegetation so the crown closure of both brush and trees is approximately 50 percent. Trees within the Zone 2 area are not to be removed where their removal would leave more than 10 feet between one tree canopy and another. Where crown closure of existing vegetation is already 50 percent or less, no

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reduction in fuel load is to occur.

3. No motorized vehicles that will increase erosion potential may be used to remove trees or shrubs in areas steeper than 20 percent. Only rubber tired vehicles are to be used in these areas unless an appropriate erosion-control plan has been approved by the City in conjunction with the use of other types equipment.
4. **ZONE 1:** Fuel modification zone may be re-planted with either approved irrigated, fire-resistant planting material or approved non-irrigated, drought-tolerant, fire-resistant plant material.

EXCEPTION: Single specimen of trees, ornamental shrubbery or cultivated ground cover, such as green grass, ivy, succulents and similar plants used as ground covers, provided they do not form a means of readily transmitting fire.

5. Where the vegetation plan necessitates concurrence with adjacent property owners, the project applicant shall provide proof of concurrence. If concurrence cannot be obtained, the adjacent property owner shall be responsible for vegetation management.

**TRAIL/FIRE ACCESS:**

Trails will need to be designed to provide 10 feet of paving and 2 feet of shoulders on each side, for a total width of 14 feet. When trail lengths are greater than 1,000 feet, a pull-out should be provided. The pull-out needs to be 10 feet wide, flared on both ends, and 40 feet long, so there is a total of a 24-foot wide trail. Grades less than 6 to 8 percent are acceptable on gravel; anything greater than 8 percent would need asphalt. A hammerhead T for a turn-around at the center of a trail should be provided when the trail is 3,000 feet or longer. The hammerhead dimensions would be 60 feet long in the T-portion, and 20-feet wide, which would join the 14-foot trail. Twenty (20) feet of clearing on both sides of the trail in compliance with Zone 1 is required.

09/20/07