



Woodland Fire Department

Community Risk Reduction Division

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Technical Policy

Title: Fire Apparatus Access and Fire Protection Water Supplies for One- and Two-Family Dwellings, Additions Thereto and Associated Accessory Structures		
Technical Policy: # TP-002	Effective Date: 04/01/2024	Revised Date: 02/01/2026
Code References: 2025 California Fire Code, Sections 102.5, 503, 507, and California Code of Regulations, Title 14, Section 1270 et al. SRA Fire Safe Regulations		

Purpose

The Woodland Fire Department (WFD) Community Risk Reduction Division (CRR) has prepared this policy to provide guidance to building officials, contractors, architects, business owners, consultants and the general public on local interpretations and practices that are considered to be in compliance with the California Fire Code (CFC). The purpose is to identify fire apparatus access and fire protection water supply requirements for one- and two-family dwellings, additions thereto and associated accessory buildings including, but not limited to, delineating when a driveway (or portion thereof) is considered a fire apparatus access road. The intent is to clarify aspects of the code that are vague or non-specific by addressing selected issues under normal conditions. The requirements of this policy shall not be construed as altering any existing code, law or regulation which may require fire protection features not covered or alluded to in these requirements, nor shall they waive any requirements of any code, law or regulation. The reader is cautioned that the guidance detailed in this policy may or may not apply to their specific situation, and that the WFD CRR retains final authority to determine compliance.

Scope

This policy is applicable to new one- and two-family dwelling, additions to existing one- and two-family dwelling and one- and two-family dwelling accessory building construction proposed at one- and two-family dwelling parcels that contain no more than two buildings, with no more than three dwelling units and any number of accessory buildings.

Fire Apparatus Access Requirements for Driveways at Individual Parcels

Fire Apparatus Access Road - Where Required

Fire apparatus access roads shall extend to within 150 feet of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility. When the building is equipped throughout with an approved automatic fire sprinkler system, the distance is permitted to be extended from 150 feet to 300 feet.

Fire Apparatus Access Road Width and Vertical Clearance

Fire apparatus access roads shall have an unobstructed driving surface width of not less than 12 feet, exclusive of shoulders, and 1 foot on each side for a total 14 feet unobstructed horizontal clearance, with an unobstructed vertical clearance of 13 feet 6 inches.

Grade

Unless otherwise approved by the WFD Fire Marshal, the grade of a fire apparatus access road shall not exceed 16 percent and the cross slope shall not exceed 2.5 percent.

Angles of Approach and Departure

The angles of approach and departure for fire apparatus access roads shall be a maximum of 6 percent grade for 25 feet of approach/departure.

Turning Radius

The inside turning radius of a fire apparatus access road shall be in accordance with any of the following:

- For curves of 18 to 50 feet inside radius, the driving surface shall be 20 feet minimum. A 56 foot straight leg is required between turns in a compound curve to provide sufficient recovery distance for the apparatus.
- For curves greater than 50 but less than or equal to 100 feet inside radius, the driving surface shall be 16 feet.
- For curves greater than 100 but less than or equal to 200 feet inside radius, the driving surface shall be 14 feet.
- For curves greater than 200 feet inside radius, the driving surface shall be 12 feet.

An alternate design meeting the intent for apparatus turning may be approved by the WFD Fire Marshal.

Turnarounds

For those parcels located in the Authority Having Jurisdiction (AHJ):

- A turnaround shall be provided to all building sites on fire apparatus access roads over 150 feet in length, and shall be within 50 feet of the building.
- The minimum outside turning radius for a turnaround shall be 38 feet, not including parking. If a hammerhead/T is used instead, the top of the "T" shall be a minimum of 80 feet in length.

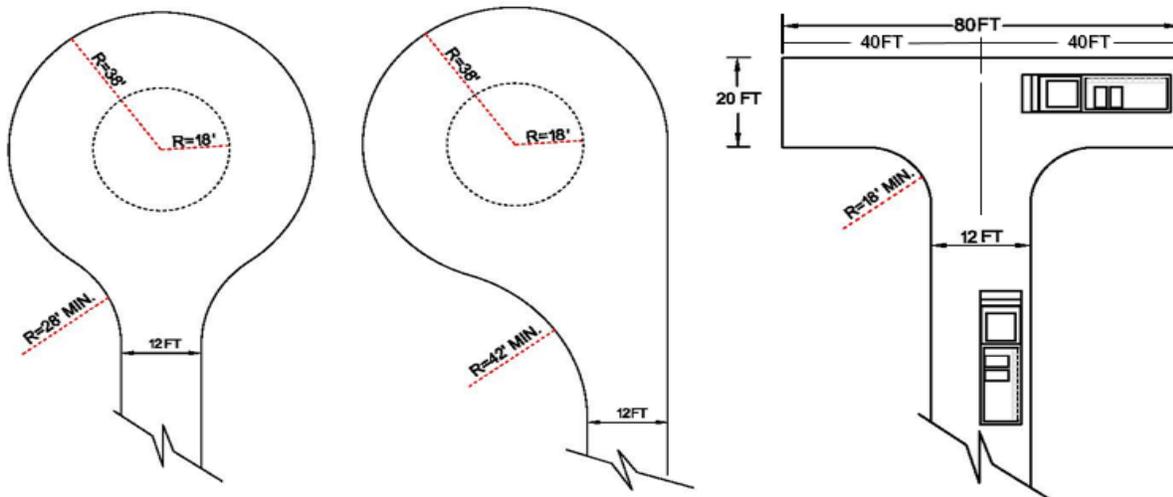
For those parcels located in the State Responsibility Area (SRA):

- A turnaround shall be provided to all building sites on fire apparatus access roads over 300 feet in length, and shall be within 50 feet of the building.
- The minimum outside turning radius for a turnaround shall be 40 feet, not including parking. If a hammerhead/T is used instead, the top of the "T" shall be a minimum of 60 feet in length.

The cross slope within a turnaround shall not exceed 5 percent in all directions.

Example diagrams of approved turnarounds

AHJ:



Turnouts

When a fire apparatus access road exceeds 150 feet in length, but less than 800 feet in length, a turnout shall be provided near the midpoint of the fire apparatus access road. Where the fire apparatus access road exceeds 800 feet, turnouts shall be provided no more than 400 feet apart. Turnouts shall be a minimum of 12 feet wide and 30 feet long with a minimum 25 foot taper on each end.

Surface and Load Capacities

Fire apparatus access roads shall be designed to support the imposed loads of fire apparatus [80,000 pound live load (gross vehicle weight) distributed over two axles] and shall be surfaced so as to provide all-weather driving capabilities [rear wheel drive apparatus] for the length and grade(s) of the fire apparatus access road. Storm water runoff/erosion control shall be incorporated. The final plans for the road construction, surface and storm water runoff/erosion control shall be signed and stamped by a California registered civil engineer responsible for the preparation of the design.

Bridges and Elevated Surfaces

Bridges or an elevated surface used as part of a fire apparatus access road shall be designed, constructed and maintained in accordance with CFC Section 503.2.6.

Gates

Gates securing fire apparatus access roads shall comply with all of the following:

- Minimum unobstructed gate width shall be not less than 14 feet.
- For parcels located in the SRA, gates shall be setback from the intersecting roadway at least 30 feet and shall open to allow a vehicle to stop without obstructing traffic on that road.
- Gates shall be swinging or sliding type.
- Gates shall have an approved means of emergency operation:
 - Manually operated gates shall not be locked with a padlock or chain and padlock unless,
 - a Knox box containing the key to the padlock is installed at the gate in an approved location, or
 - a Knox padlock capable of unlocking the gate is utilized, or
 - other means of emergency operation acceptable to the WFD Fire Marshal are provided.
 - Electric gates shall include the capability of being opened via a Knox key switch in an approved location.
- Electric gate operators, where provided, shall be listed in accordance with UL325.
- Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F2200.

Address Identification

New and existing buildings shall be provided with approved address identification. Approved numbers or addresses shall be placed on the front elevation of all new or existing buildings in such a position that is plainly visible and legible from the street or road on which the property is addressed. Addresses shall not be located where they have the potential of being obstructed by signs, awnings, vegetation, or other building/site elements. Address identification characters shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be not less than 4 inches high with a minimum stroke width of 1/2 inch for one- and two-family residential buildings.

Fire Protection Water Supply

New one- and two-family dwellings shall comply with CFC Section 507.

Additions to Existing One- and Two-Family Dwellings

Fire Apparatus Access

Additions to existing one- and two-family dwellings shall comply with the provisions for new one- and two family dwellings except as modified below:

- Additions up to 1,000 square feet in area are exempt from additional fire apparatus access requirements.^{1,2}

Fire Protection Water Supply

Additions to existing one- and two-family dwellings shall comply with the provisions for new one- and two family dwellings except as modified below:

- Additions up to 600 square feet in area are exempt from fire protection water supply confirmation provided the addition does not cause an increase in minimum fireflow demand in accordance with CFC Appendix B Section B105.1.¹
- Additions up to 1000 square feet in area are exempt from fire flow confirmation provided the addition does not cause an increase in minimum fireflow demand in accordance with CFC Appendix B Section B105.1 and there is an existing private fire protection water tank on the project parcel or an existing fire hydrant within 1,000 feet of all exterior ground floor walls of the addition.¹

Accessory Structures³ (must be accessory to One- or Two-Family Dwellings)

Fire Apparatus Access

Accessory structures shall comply with the provisions for new one- and two-family dwellings except as modified below:

- Accessory structures up to 600 square feet in area are exempt from additional fire apparatus access requirements if all exterior ground floor walls of the accessory structure are within 150 feet from an approved existing residential driveway.^{1, 4, 5}

Fire Protection Water Supplies

Accessory structures shall comply with the provisions for new one- and two-family dwellings except as modified below:

- Accessory structures up to 600 square feet in area are exempt from fire protection water supply confirmation.^{1, 4}
- Accessory structures up to 50% of the area of the largest existing building on the parcel are exempt from fire flow confirmation if there is an existing private fire protection water tank on the parcel or an existing fire hydrant within 1,000 feet of all exterior ground floor walls of the accessory structure.^{1, 4}

¹ Exemption permitted a maximum of one time per parcel.

² Exemption permitted only if the building and addition are equipped with an approved automatic sprinkler system throughout or, if not equipped with an approved automatic sprinkler system throughout, there will be no more than two (2) one- and two-family dwellings on the parcel with the construction of the addition.

³ One story detached accessory structures up to 120 square feet in area are exempt from construction permit requirements.

⁴ The accessory structure must be separated from other existing accessory structures and existing one- and two-family dwellings by a minimum distance of ten (10) feet or as otherwise permitted to be considered independent buildings by the California Residential Code or California Building Code as applicable.

⁵ Exemption permitted only if the new accessory structure will be equipped with an approved automatic sprinkler system throughout or, if not equipped with an approved automatic sprinkler system throughout, there will be no more than two (2) accessory structures without approved automatic sprinkler systems throughout on the parcel with the construction of the new accessory structure.

Manufactured Homes and Tiny Homes Used as Primary Residences

Applicability. To enhance fire and life safety protections for small-format dwellings, the City of Woodland adopts the following requirements for manufactured homes and tiny homes used as primary residences. These requirements address gaps in current building and fire codes by ensuring consistent access, suppression, and construction standards for long-term residential use.

Definitions. For the purposes of this section, the following definition applies:

Primary residence means a dwelling unit used or intended to be used as the legal residence of the owner or occupant for more than 183 days in any calendar year. This includes any one- or two-family dwelling, manufactured home, or tiny home that serves as the main living quarters for the owner, a tenant, or a long-term occupant.

A **tiny home** is defined as a residential structure intended for permanent or semi-permanent occupancy, with a total floor area of 400 square feet or less, excluding lofts. Tiny homes may be site-built, prefabricated, manufactured, or converted from alternative materials such as shipping containers (Connex boxes), park model RVs, modular units, converted buses (skoolies), or tiny homes on wheels. Regardless of the construction type, the structure must be designed as a single housekeeping unit with permanent provisions for living, sleeping, eating, cooking, and sanitation.

Scope. This section applies to all new manufactured homes and tiny homes placed, constructed, installed, or relocated within the City of Woodland for use as a primary residence, regardless of foundation type, wheel status, or classification under state or federal housing regulations. These standards apply to:

- a. All newly installed manufactured or tiny homes on wheels used as a primary residence.
- b. Existing units that are relocated, newly connected to utilities, or undergoing an occupancy change.
- c. Units in areas governed by local fire access and water supply regulations.

Fire Sprinkler Requirements. All manufactured and tiny homes defined as primary residences shall be protected by an automatic fire sprinkler system designed and installed in accordance with NFPA 13D.

- a. Installation must be performed by a California State licensed C-16 contractor.
- b. Plans shall be reviewed and approved by the Fire Department.
- c. The system must pass final inspection and functional testing before occupancy.

Exterior Materials. All exterior walls and roofing materials shall be constructed using non-combustible or ignition-resistant materials. Acceptable materials include, but are not limited to:

- a. Fiber cement board, stucco, masonry, metal siding, treated wood, and other fire-resistant materials.
- b. Roof coverings shall meet or exceed Class B fire rating.

Clearance and Site Safety. A minimum 5-foot clearance zone shall be maintained around the structure. Within this zone:

- a. Combustible ground coverings (e.g., bark, mulch, straw) are prohibited.
- b. Dry vegetation and refuse shall be cleared and maintained.
- c. Wood fences must be separated from the building by noncombustible material or offset.

Manufactured Homes and Tiny Homes Used as Primary Residences Cont.**Addressing and Emergency Access.**

- a. All new buildings shall have clearly visible address numbers, contrasting with the background, with minimum character height of 4 inches and stroke width of 0.5 inches. Address numbers shall be internally or externally illuminated.
 1. Buildings accessed from private driveways or not visible from a public street shall have additional address signage posted at the road entrance.
- b. Driveways or fire access routes shall:
 1. Be at least 16 feet wide with 13 feet 6 inches vertical clearance.
 2. Be all-weather and support emergency vehicle loads of at least 80,000 pounds.
 3. Remain clear of vegetation, fences, or other obstructions.

Homes Constructed on Permanent Wheels. To ensure consistent fire and life safety standards, the following requirements apply to all manufactured homes and tiny homes constructed on permanent wheels when used as primary residences within the City of Woodland:

- a. **Foundation Pad Requirement:** All manufactured homes and tiny homes on wheels intended for permanent or long-term residential use shall be placed on a reinforced concrete pad no less than 4 inches thick, large enough to fully support the base of the structure. The pad must provide a stable, non-combustible, all-weather surface.
- b. **Skirting and Concealment:** The underside of the unit, including wheels, axles, and chassis, shall be fully enclosed with approved skirting or perimeter screening to provide visual concealment and reduce fire hazards from accumulated debris and combustible materials.
 1. Skirting shall allow for adequate ventilation as required by code but shall prevent entry of debris and combustible storage beneath the unit.
 2. Access panels for maintenance must be included and properly secured.
 3. **Approved Skirting Materials.** Skirting shall be constructed of durable, fire-resistant, or non-combustible materials, such as:
 - a. Cement fiberboard
 - b. Metal panels
 - c. Fire-rated treated wood
 - d. Other approved exterior-rated material
 4. Vinyl or plastic skirting is not permitted unless specifically listed and approved for permanent residential use by the Building Official or Fire Marshal.

Defensible Space and Clearance. A minimum 5-foot defensible space must be maintained around the entire perimeter of the home. This area shall remain clear of:

- a. Combustible vegetation;
- b. Stored materials;
- c. Open flame sources; and,
- d. Any structure or enclosure that would obstruct fire access.