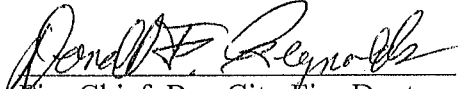


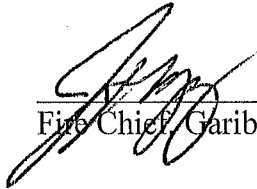
**Tillamook County Fire Defense Board**

The Tillamook Fire Defense Board hereby adopts attached Fire Department Access Guidelines (updated 04/21/2005) with Supplement #1 as fire department roadway minimum design standards for new road construction within Tillamook County.

**Tillamook Fire Defense Board**

  
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Fire Chief, Bay City Fire Dept.

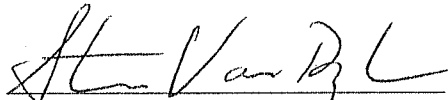
Date Adopted 4/21/05

  
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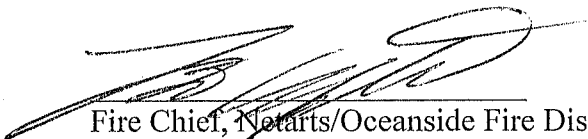
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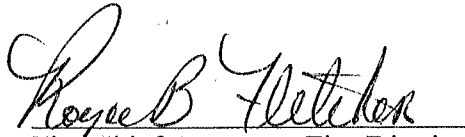
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Fire Chief, Nehalem Fire Dept.

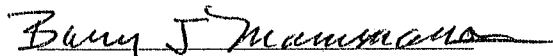
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Fire Chief, Netarts/Oceanside Fire District

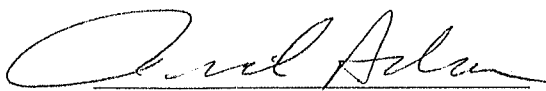
Date Adopted 4-21-05

  
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Fire Chief, Nestucca Fire District

Date Adopted 4-21-05

  
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Fire Chief, Rockaway Beach Fire Dept.

Date Adopted 5-5-05

  
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Fire Chief, Tillamook Fire District

Date Adopted 4/21/05

# TILLAMOOK COUNTY FIRE DEFENSE BOARD

## Residential Development Road Access Guidelines

*See  
Oregon Fire Code "OFC" 2004, Chapter 5  
&  
Appendix D*

### Section 1 General

**1.1 Scope-** The provisions of the State of Oregon Fire Code Chapter 5 apply unless specifically modified by this document and as approved by the fire chief. This document is intended to provide minimum requirements and alternative guidelines to be considered by the fire chief when determining fire department access for residential developments. Approved alternatives for fire department access should include the needs of the local fire department and the following sections which shall consist of fire lanes, no parking areas, public and private access roadways, or a combination thereof.

**1.2 Plans-** When required by the fire chief, fire apparatus access road plans shall be provided and shall be stamped by a registered engineer and may require the inclusion of a topographic map and grade profile in conjunction with the roadway plot plan. *Construction documents for proposed fire apparatus access, location of fire lane, construction documents and hydraulic calculation for fire hydrant systems, shall be submitted to the fire department for review and signature approval prior to construction.*

### Section 2 Definitions

**2.1 Definitions-** For the purpose of Chapter 5 and Appendix D, the following terms are defined.

**Access Control Device.** Any means of restricting or limiting public vehicle access to a roadway or designated fire lane such as, electric or manual gates, chains, cables and padlocks.

**Additional Access.** An approved secondary means of fire apparatus access from a fire station to a facility, building or portion thereof. This is a general term inclusive of all other terms such as fire lane, public or private street, and parking lot lane and access roadway.

**Development.** A residential development, e.g. a subdivision or major land partition, as approved and recorded according to local planning and zoning regulations, and includes all residential units and occupancies as classified in the building code.

**Fire Apparatus Access Road.** A road that provides fire apparatus access from a fire station to a facility, building or portion thereof. This is a general term inclusive of all other terms such as fire lane, public street, private street, parking lot lane and access roadway.

**Fire Lane.** A road or other passageway developed to allow the passage of fire apparatus. A fire lane is not necessarily intended for vehicular traffic other than fire apparatus.

**Fire Department Master Key.** A limited issue key of special or controlled design to be carried by fire department officials in command which will open key boxes on all specified properties.

**Key Box.** A secure, tamperproof device with a lock operable only by a fire department master key, and containing building entry keys and other keys that may be required for access in an emergency.

### **Section 3 Fire Apparatus Access Roads**

**3.1 Where required-** Fire apparatus access roads shall be provided and maintained in accordance with Sections 503.1.1 through 503.1.3 of the Oregon Fire Code 2004 Edition.

**3.2 Buildings and facilities-** Approved fire apparatus access roads shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and 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.

**3.3 Additional Access-** The fire chief shall require two means of access in accordance with Appendix D for a development having thirty or more sites for dwelling units, including multi-family residential occupancies of two or more dwelling units, and single family residences, or residential building sites.

#### **Exceptions:**

- a. Where there are 30 or fewer dwelling units on a single public or private access way and all dwelling units are protected by approved residential sprinkler systems, access from two directions shall not be required.

- b. The number of dwelling units on a single fire apparatus access road shall not be increased unless fire apparatus access roads will connect with future development, as determined by the code official.
- c. When two means of access cannot be provided due to location on property: topography, waterways, non-negotiable grades or other similar conditions, the fire chief is authorized to require additional protection.

**3.4 Access in Urban-Wildland Interface Areas-** For egress and access concerns in urban-wildland locations, the fire chief may be guided by the *Urban-Wildland Interface Code*, or other related codes as approved by the State of Oregon.

**3.5 Road Widths-** Access roadways for streets in a development shall comply with the provisions of Chapter 5, Section 503.2.1. Fire apparatus access roads shall have an unobstructed width of not less than 20 feet. Minimum unobstructed width shall be defined as 16 feet of travel surface and 2 feet of shoulder on both sides.

1. 20 feet wide when parking is not allowed on either side of the roadway.
2. 28 feet wide when parking is only allowed on one side of the roadway and not on the other.
3. 32 feet wide when parking is not restricted to either side.

**Exceptions:** The provisions of Section 5.1 may be modified by the fire chief when:

- a. All building in a development are completely protected with an approved automatic fire sprinkler system.
- b. When provisions are made for the emergency use of side-walks by such means as rolled, or mountable curbs capable of supporting the fire department's apparatus.
- c. When streets or roadways in a development are identified for one-way circulating flow of traffic or pullouts are provided every 150 feet on streets or roadways identified for two-way traffic.
- d. When a grid system for traffic flow is provided in a development and streets or roadways in the grid do not exceed 300 feet in length, but are accessible at each end from approved access roadways or streets.

**3.6 Vertical Clearance-** Fire apparatus access roads shall have an unobstructed vertical clearance of not less than 13 feet 6 inches for the entire width and length of the access road.

**3.7 Road Surface-** Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced so as to provide all-weather driving capabilities. Appendix D of the 2004 OFC requires access roads to be capable of supporting 75,000 GVW. All roadbeds with a load limit of less than 75,000 GVW must be posted and fire department vehicles over the posted weight limit are not permitted to use the road.

**Exception:** Proposed alternate design criteria for an “all weather surface” fire department access road or street, bearing the stamp of a professional licensed engineer shall be subject to the approval of the fire chief.

**3.8 Angles of Approach-** The angles of approach and departure for any means of access shall not be less than the design limitations of the fire apparatus of the fire department, subject to the approval of the fire chief.

**3.9 Turning Radius-** The required turning radius of a fire apparatus access road shall not be less than 50 feet on the outside radius and the minimum inside turning radius shall not be less than 30 feet, unless otherwise approved by the fire chief.

**3.10 Dead Ends-** Dead end fire department access roadways shall be in accordance with OFC Section 503.2.5, such that when dead-end access roads in excess of 150 feet in length shall be provided with an approved area for turning around fire apparatus. There are options to consider for provisions relating to the turning around of fire apparatus, such as, bulb or cul-de-sacs, hammer-heads, “Y” heads, or other methods which address the need of the fire department, based on the capabilities of the fire apparatus in the jurisdiction, and as approved by the fire chief.

**See Supplement #1**

**3.10.1 Cul-de-sacs-** Cul-de-sacs shall have a clear and unobstructed turning radius that is consistent with the capabilities of the fire apparatus of the local fire department and not less than 96 feet in diameter, subject to approval by the fire chief.

**Exception:** When alternate methods and means relating to the turning around of fire apparatus are provided, the provisions of Section 6.2 may be modified by the fire chief.

**3.11 Grades-** The gradient for fire department access roadways or streets shall be in accordance with OFC Section 503.2.7 and Appendix D. The Oregon Fire Code allows a maximum grade of 10%. Grades in excess of 10% not to exceed 15% may be approved by the fire chief with an approved exception:

**Exceptions:**

- a. The fire chief is authorized to allow increased steepness of grade, depending on the apparatus requirements of the fire department, when every building in the development is provided with an approved automatic fire sprinkler system.
- b. The fire chief may allow an increase of the maximum grade that does not exceed 200 feet and 15%, when other approved fire protection measures are provided, including a requirement for the installation of non-combustible roofing materials.

**3.12 Bridges and Culverts-** When a bridge or culvert is required to be used as part of a fire apparatus access road it shall be constructed and maintained in accordance with OFC Section 503.2.6 and AASHTO *Standard Specifications for Highway Bridges*. Vehicle load limits shall be posted at both entrances for every bridge not capable of supporting 75,000 GVW.

**Section 4  
Parking & Identification**

**4.1 Parking-** When motor vehicle parking is allowed on access roadways in a development, such parking shall not encroach in the fire department access roadway. When this provision is compromised, or restricted, the fire chief may require signage to indicate parking restriction in accordance with Section 4.2.

**4.2 No Parking Signage-** When parking is restricted due to motor vehicle encroachment into fire department access roadways, “NO PARKING” shall be painted on the curbs, or signs shall be installed, in accordance with Section 4.2.

**4.2.1 Curbs-** “NO PARKING” areas may be identified by curbs that are painted red, or in accordance with State or local requirements, and as approved by the fire chief, which identify the area where “NO PARKING” is required. When appropriate, lettering on the painted curb may be required by the fire chief or local road department.

**4.2.2 Signs-** Vertical signs shall be mounted no lower than 4 feet and no higher than 8 feet, or as approved by the chief. Spacing of signs and the type of sign used needs to be consistent with the standards of the local road department and as approved by the fire chief.

**4.3 Marking-** Marking of fire apparatus access roads, addresses and fire protection equipment shall be in accordance with OFC 503.3. Approved signs or other approved notices shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. Signs or notices shall be maintained in a clean and legible

condition at all times and replaced or repaired when necessary to provide adequate visibility.

**4.4 Premise Identification-** Premises identification shall be in accordance with OFC 505.1. Building numbers or approved identification shall be placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Address numbers shall be Arabic numerals or alphabet letters at minimum of 4 inches high with a minimum brush stroke width of not less than .5 inches.

## **Section 5 Access Control & Key Boxes**

**5.1 Access-Control Devices-** When required fire department access to a development is restricted by the installation of access-control devices, such devices shall provide an adequate clear width of not less than 20 feet with a minimum 30 foot setback from the street accessing the roadway for fire department apparatus, be maintained operable at all times, and shall be approved by the fire chief.

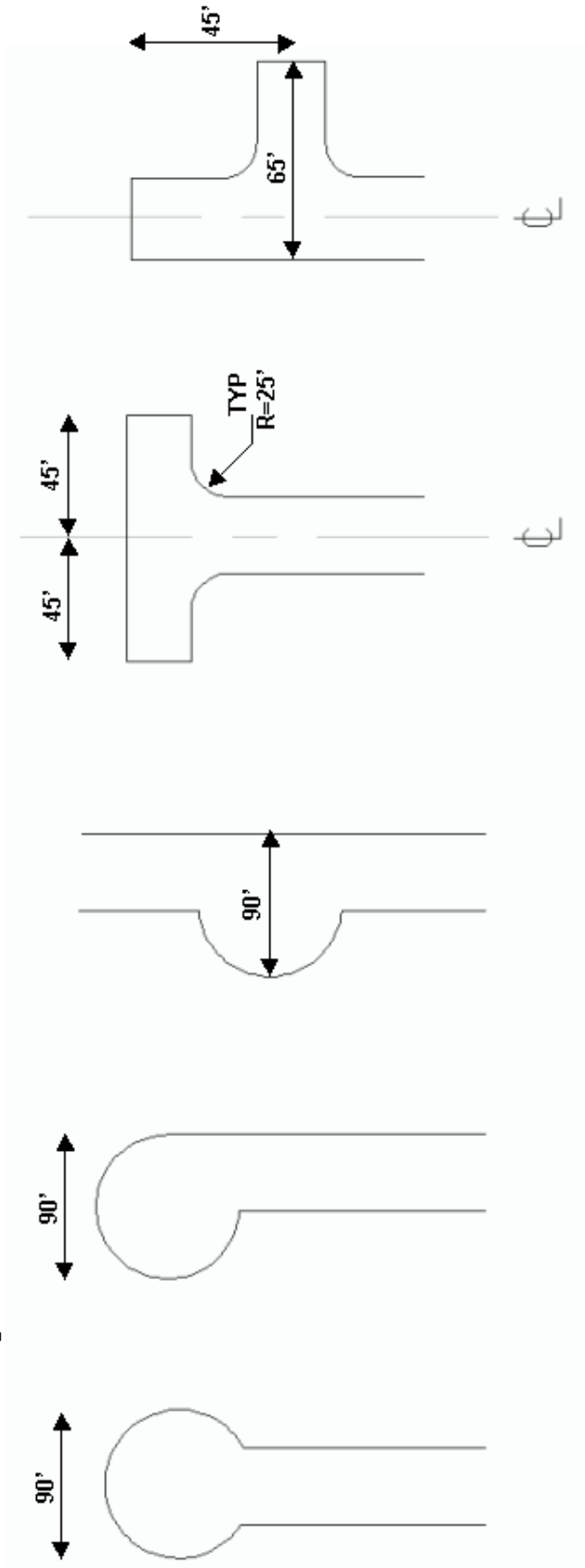
**5.2 Where Required-** Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for life-saving or fire-fighting purposes, the fire chief shall require a key box to be installed in an approved location. The key box shall be of an approved type and shall contain keys to gain necessary access as required by the fire chief.

**5.2.1 Locks-** An approved lock shall be installed on gates or similar barriers when required by the fire chief.

**5.3 Key Box Maintenance-** The operator of the building shall immediately notify the fire chief and provide the new key when a lock is changed or re-keyed. The key to such lock shall be secured in the key box.

**SUPPLEMENT #1 TO THE TILLAMOOK FIRE DEFENSE BOARD  
FIRE DEPARTMENT ACCESS GUIDELINES**

The following are standard turnaround designs acceptable to the Fire Departments in Tillamook County:



- Above drawings simplified for presentation
- The width of the road and turnaround legs shall be a minimum unobstructed width of 20 ft or that of respective local jurisdiction with road design authority (whichever is more restrictive). The above dimensions include travel surface and road shoulders.
- Proposed road designs with curbs shall be reviewed consistent with local fire department and local jurisdiction requirements.
- Local fire department or local jurisdiction may incorporate additional requirements or modifications, if needed.
- Variation from the above standard drawings may only be considered by the local fire department after applicant submission of proposal justification and mitigation.
- Easement widths determined by the local jurisdiction