

## LAND MANAGEMENT DIVISION



# FIRE SAFETY STANDARDS for ROADS AND DRIVEWAYS

PUBLIC WORKS DEPARTMENT 3050 NORTH DELTA HIGHWAY, EUGENE OR 97408  
PLANNING: 541-682-3577 BUILDING: 541-682-4651 SANITATION: 541-682-3754

*This guide outlines the fire safety standards for roads and driveways for new dwellings, manufactured dwellings and structures in the F1 (Nonimpacted Forest) zone and F2 (Impacted Forest) Zone. This guide is for informational purposes only and is not to be considered a substitute for the language of state or local regulations. Specific language may be found in Lane Code 16.210(6)(b) and 16.211(6)(b)*

### Road and Driveway Surfaces.

Roads shall have unobstructed widths of at least 20 feet including: travel surfaces with widths of at least 16 feet constructed with gravel to a depth sufficient to provide access for fire fighting vehicles and containing gravel to a depth of at least six-inches or with paving having a crushed base equivalent to six inches of gravel, an unobstructed area two feet in width at right angles with each side of the constructed surface, curve radii of at least 50 feet, and a vertical clearance of at least 13 feet 6 inches. Driveways shall have: constructed widths of at least 12 feet with at least six inches of gravel or with paving having a crushed base equivalent to six inches of gravel and shall have a vertical clearance of 13 feet 6 inches.

### Turnarounds.

Any dead-end road over 200 feet in length and not maintained by Lane County shall meet these standards for turnarounds. Dead-end roads shall have turnarounds spaced at intervals of not less than 500 feet. Turnarounds shall comply with these design and construction standards:

#### -Hammerhead Turnarounds.

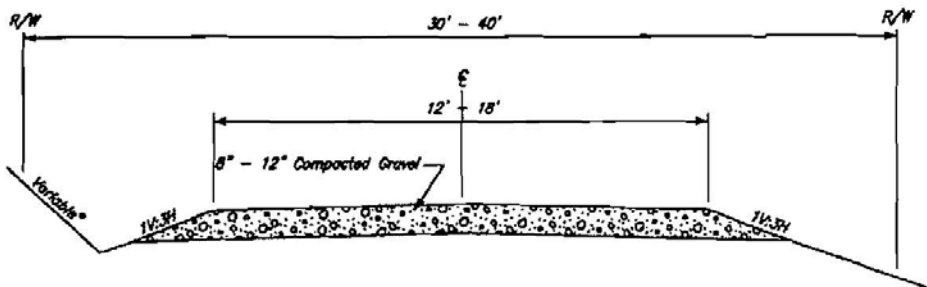
Hammerhead turnarounds (for emergency vehicles to drive into and back out of to reverse their direction on the road) shall intersect the road as near as possible at a 90 degree angle and extend from the road at that angle for a distance of at least 20 feet. They shall be constructed to the standards for driveways in LC 16.211(6)(b)(iii)(aa) above and shall be marked and signed by the applicant as "NO PARKING." Such signs shall be of metal or wood construction with minimum dimensions of 12 inches by 12 inches; or

#### -Cul-de-sac Turnarounds.

Cul-de-sac turnarounds shall have a right-of-way width with a radius of at least 45 feet and an improved surface with a width of at least 36 feet and shall be marked and signed by the applicant as "NO PARKING." Such signs shall be of metal or wood construction with minimum dimensions of 12 inches by 12 inches; and

No cul-de-sacs or hammerhead turnarounds shall be allowed to cross any slope which will allow chimney-effect draws unless the dangerous effects of the chimney-effect draws have been mitigated by the location of the road and, where necessary, by the creation of permanent fire breaks around the road.

LOCAL ACCESS ROAD  
AND  
PRIVATE ROAD/EASEMENT  
(Gravel Road)



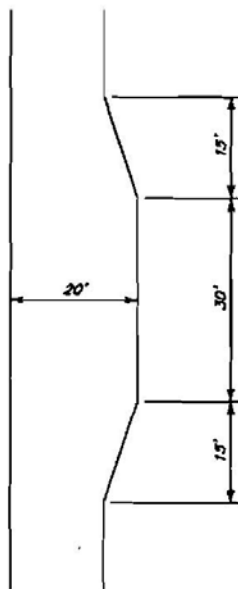
## Bridges and Culverts.

Bridges and culverts shall be constructed to sustain a minimum gross vehicle weight of 50,000 lbs. and to maintain a minimum 16-foot road width surface or a minimum 12-foot driveway surface. The Planning Director may allow a single-span bridge utilizing a converted railroad flatcar as an alternative to the road and driveway surface width requirements, subject to verification from a engineer licensed in the State of Oregon that the structure will comply with the minimum gross weight standard of 50,000 lbs.

## Road and Driveway Grades.

Road and driveway grades shall not exceed 16 percent except for short distances when topographic conditions make lesser grades impractical. In such instances, grades up to 20 percent may be allowed for spans not to exceed 100 feet. An applicant must submit information from a Fire Protection District or engineer licensed in the State of Oregon demonstrating that road and driveway grades in excess of eight percent are adequate for the fire fighting equipment of the agency providing fire protection to access the use, fire fighting equipment and water supply.

## VEHICLE PASSAGE TURNOUTS FOR LOCAL ACCESS ROADS AND PRIVATE ROADS/EASEMENTS



$$\% \text{ slope} = \frac{V}{H} \times 100$$

Vertical distance  
Horizontal distance

Use clinometer to obtain percent slope or find H by scaling it off the map. Find V by contour differences.

**HASTY METHOD: EYESIGHT AND PACE**

**EXAMPLE:**  
Your height: 1.75m  
1 pace: .75m

$V = 2 \times 1.75 = 3.5\text{m}$   
 $H = (.75 + 1.25) (.75) = 150\text{m}$

$\% \text{ of slope} = \frac{150}{3.5} \times 100 = 2.3\%$

**NOTE:** Vertical distance and horizontal distance must be in the same units.

## Identification.

Roads shall be named and addressed in compliance with LC 15.305 through 15.335.

## Driveway Vehicle Passage Turnouts.

Driveways in excess of 200 feet shall provide for a 20-foot long and eight-foot wide passage space (turn out) with six inches in depth of gravel and at a maximum spacing of 400 feet. Shorter or longer intervals between turnouts may be authorized by the Planning Director where the Director inspects the road and determines that topography, vegetation, corners, or turns obstruct visibility.

