

W. S. C.

AGENDA COVER MEMO

DATE: May 15, 2006 Date of Memo
 May 24, 2006 Date of Work Session

TO: LANE COUNTY BOARD OF COMMISSIONERS

FROM: Public Works Department/Land Management Division

PRESENTED BY: Bill Sage, Associate Planner

AGENDA ITEM TITLE: **Discussion with the Board of County Commissioners on the review to implement new plan policies and fire safety standards in the Wildland-Urban Interface (WUI) of rural Lane County.**

I. ISSUE

Direction from the Board of County Commissioners on *Action Items ST: 2.1.1* and *ST: 2.1.2* of the Lane County Community Wildfire Protection Plan:

Action Item ST: 2.1.1 – Review and make recommendations to the Lane County Board of Commissioners for amendments to Rural Residential Zones [Lane Code 16.290 (RR) and Lane Code 16.231 (NR)] for implementation of fire safety standards within the WUI.

Action Item ST: 2.1.1 – Review and make recommendations to Lane County Board of Commissioners for implementation of Oregon Residential Specialty Code Section R324 – Wildfire Hazard Mitigation regulations within the WUI.

Please refer to **Attachment “A”** – (Lane County Planning Commission agenda cover memo, January 30, 2006) for background information and an in-depth analysis of the policy issues and **Attachment “G”** for an outline of the implementing process for fire safety standards in the WUI. The DISCUSSION section below includes a summary of those documents.

II. DISCUSSION

Background

Three proactive elements of any proposed standards are essential for protecting people, property and resources within the Wildland-Urban Interface:

- (1) Reduction of fuels surrounding structures;
- (2) Selection of building materials and structural standards; and
- (3) Access routes for emergency equipment and evacuation of residents.

Since 1984, Lane County has required owners of forest land, primarily F2 Impacted Forest Land, to construct access driveways and roads as well as fuel breaks around new dwellings and accessory structures. These regulations were implemented to protect the forest resources on both private and public lands from the threat of a

wildfire spreading outward from a residential fire. The public benefited from the protection to a public resource and the property owners benefited from the reduction in risk if their residence were in the path of a wildfire originating somewhere else. It was understood from the outset that the right to a dwelling in a forested area included responsibilities to other property owners and the public. And, some benefits would flow in return. However, wildfires do not respect property or zoning boundaries. They go where winds, fuels and slopes dictate.

Over the past 20 years, people have grown in their respect for wildfires. Most rural residents recognize the names of major wildfires of the past decade that have resulted in catastrophic loss of homes and forests throughout the Pacific Northwest. They also know that without adequate fuel breaks around dwellings, the dwellings became fuel. Without adequate access roads, the emergency fire fighters could not reach the dwellings or forests threatened by wildfire. Without access, there was no defense against the thirst of the fires for the fuel.

Lane County has been relatively fortunate. We haven't had to calculate after a calamity how many homes were spared because of maintained fuel breaks and how many were lost because of inadequate protection standards. We have played with fire for too long.

When the Oregon Natural Hazards Workgroup surveyed the stakeholders during the drafting of the Community Wildfire Protection Plan, the consensus was that fire safety standards should apply evenly across all zoning districts that provide for residential use. If the safety of lives and property, private and public, is the goal, then the standards should apply where the people reside, shop, are educated and recreate.

The requirement of implementing fire safety standard will increase the costs of developing a residential site for some property owners. Some already incorporate fuel breaks around their dwellings and adequate access routes stemming from their awareness of the benefits versus risks. Others may need additional financial incentives to act. Staff is pursuing discussions with property insurance underwriters to determine if there could be a linkage between the verification of the driveway/road and fuel break standards and a reduction in insurance premiums thereafter.

Under this scenario, the fire safety standards would be implemented in the following zoning districts:

Nonimpacted Forest Lands Zone (F-1, RCP)	LC 16.210
Impacted Forest Lands Zone (F-2, RCP)	LC 16.211
Exclusive Farm Use Zone (E-RCP)	LC 16.212
Natural Resource Zone (NR-RCP)	LC 16.213
Marginal Lands Zone (ML-RCP)	LC 16.214
Park and Recreation Zone (PR-RCP)	LC 16.215
Rural Residential Lands Zone (RR-RCP)	LC 16.231
Destination Resort Zone (DR-RCP)	LC 16.232
Rural Residential Zone (RR, RCP)	LC 16.290
Rural Commercial Zone (RC, RCP)	LC 16.291
Rural Industrial Zone (RI, RCP)	LC 16.292
Rural Public Facilities Zone (RPF, RCP)	LC 16.294
Rural Park and Recreation Zone (RPR, RCP)	LC 16.295

Each of these zones allow owner or caretaker residences and some conditionally permit temporary or permanent habitable structures including medical hardship residences, guest houses, farm help dwellings, bed and breakfast accommodations, child care facilities, residential homes for the elderly or group care facilities, lodges, motels or hotels. Some of these zones also allow facilities used by the public such as schools, conference centers, grange halls, and churches. Employment and commerce for rural residents stem from uses allowed in the commercial and industrial zones. All of these uses are either occupied or frequented by people on a daily basis and the potential loss of life and property due to lack of preparation or the threat to emergency response personnel are risks that are addressed by the proposed fire safety standards.

Fire safety standards

Two drafts of Lane Code 16.266 *Wildland –Urban Interface Protection Standards (WUI, RCP)* are attached for the Board’s consideration.

The “original” draft is attached as **Attachment “B” - Working draft – as of January 23, 2006 wfs** and is based on the assumption that the standards could protect a structure from the encroachment of a wildfire. It is printed on yellow paper. It is a composite of existing F2 Impacted Forest Land Zone - Lane Code 16.211(8)(c)-(e) fuel break and road standards and the International Urban-Wildland Interface Code (2003), which has its base in the International Building Code and the International Fire Code. The International Building Code, with some revisions, is implemented as the Oregon Specialty Codes. In essence, the proposed “original” LC 16.266 regulations are a tapestry of the International Fire Code, State of Oregon Specialty (building) Codes, and guidelines published by the Oregon Department of Forestry in 1988-1990. This draft would require a 30-foot primary fuel break and an additional 100-foot secondary fuel break around all new residential structures in the WUI. The primary and secondary fuel breaks require removal of trees to create an “open-canopy” environment with spacing between tree crowns of 10 feet or more.

The “revised” draft is attached as **Attachment “C” -- Working draft – “structural defensible space” March 3, 2006**. It is printed on green paper. It includes the contributions of some of the fire protection districts and the Oregon Department of Forestry in February-March and is based on the Coburg Fire Department’s revisions to the “original” draft. This draft is focused on establishing a defensible space around new residential structures that will provide a safe and effective area for suppression of onsite structural fires. This draft would require a 30-foot structural defensible space around all new residential structures and approximately 65% of all new structures in the WUI would require only this standard of protection. The remaining 35% of new residential structures in the WUI would require the 30-foot defensible space and an additional 30-foot secondary fuel break. This draft provides for a “closed-canopy” environment with the emphasis on eliminating ladder fuels under or adjacent to trees within the structural defensible space.

Both drafts retain the same road and driveway standards that are now required in the Impacted Forest Land Zone (F2) for access by fire fighting and emergency equipment, and evacuation of citizens.

Policy decisions

The Board of County Commissioners has three policy decisions to consider which will provide direction to staff on how to proceed with these two *Action Items*.

(1) Should fire safety standards:

- (a) Be mandatory requirements for all new residential development in the WUI; or
- (b) Be advisory standards with the emphasis on providing educational materials to property owners through LMD customer service activities?

(2) Should the advisory or mandatory fire safety standards:

- (a) Be the “original” draft requiring a 30-foot primary fuel break, an additional 100-foot secondary fuel break, and an open canopy of trees spaced apart from one another, which is intended as protection from the encroachment of a wildfire; or
- (b) Be the “structural defensible space” draft requiring a 30-foot fuel break and a closed canopy, intended to provide a safe and effective area to suppress an onsite fire?

A third policy decision may be required depending on the Board’s direction on the above two policy issues. If the Board elects to implement the “structural defensible space” option as an “advisory” set of standards, then the issue of the current fuel break standards Impacted Forest Lands (F2) should be discussed and direction provided to staff.

(3) Should the current LC 16.211(8)(c) fuel break standards in the F2 zone be amended to require the 30-foot, “structural defensible space” and eliminate the 100-foot secondary fuel break?

If the science and professional advice convinces the Board to select the 30-foot “structural defensible space” as the appropriate mandatory standard, then staff will prepare an ordinance for public hearing to implement the 30-foot in radius, structural defensible space, and the minimum driveway/road standards for all new residential structures in all of the thirteen zones including the F2 Impacted Forest Land Zone.

If the science and professional advice convinces the Board to select the 30-foot “structural defensible space” as the appropriate advisory standard, then staff recommends that the Board consider eliminating the additional 100-foot, secondary fuel break currently required per LC 16.211(8)(c)(i)(bb) for new residences and residential accessory structures in the Impacted Forest Land Zone.

With either option, the implementing amendment would be back to the Board for public hearings in September 2006.

III. RECOMMENDATIONS

Lane County Planning Commission.

Attachment “D” includes all of the written comments received in the LCPC record prior to March 8th, concerning the two working drafts of Lane Code 16.266.

Approximately 140 interested parties submitted written testimony (primarily e-mail) over a four-month period of time.

The Planning Commission held a public hearing on LC 16.266 on February 7th, 2006. Approximately 50 people testified at the hearing in opposition to any mandatory standards. The public did not embrace the need for fire safety standards for new residential development and were convinced that it would eventually lead to the County applying the standards retroactively to existing structures in the future.

In deliberations on April 18th, the Planning Commission acted with the following recommendations:

- (1) By a vote of 6-0, the LCPC approved a motion to recommend that the Board pursue an advisory role to promote wildland-urban interface issues with the emphasis on providing educational materials to property owners through LMD customer service activities.
- (2) By a vote of 4-2, the LCPC approved a motion to recommend that the appropriate advisory fire safety standards be for the establishment of "structural defensible spaces" of 30-feet in radius around residential development.

LMD staff

LMD staff respects the Planning Commission recommendation for Lane County to pursue an aggressive educational program to raise awareness of the need for fire safety standards to protect resources and residences and to only present the "structural defensible space" as an advisory standard. Staff also has concerns about ensuring that private driveways and roads be constructed to minimum standards for safe passage of emergency response vehicles and that a structural defensible space is available to fire crews to defend against wildfires and suppress structural fires. These local fire district crews are the ones responding with assistance into a fire zone when residents are evacuating. The expectation that these crews will be there in an emergency should be coupled with the acceptance of the responsibility to not hinder their mission and to provide for their safety.

It is the Board's prerogative to decide if the County should require adequate driveway and road construction standards and minimum reductions of fuel loads around residences that would allow fire protection districts to get to a structural fire and the minimal 30-foot defensible space within which to suppress it.

Staff recommends that a 30-foot structural defensible space be mandatory for all new habitable structures within the WUI in the following zoning districts:

Nonimpacted Forest Lands Zone (F-1, RCP)	LC 16.210
Impacted Forest Lands Zone (F-2, RCP)	LC 16.211
Exclusive Farm Use Zone (E-RCP)	LC 16.212
Natural Resource Zone (NR-RCP)	LC 16.213
Marginal Lands Zone (ML-RCP)	LC 16.214
Park and Recreation Zone (PR-RCP)	LC 16.215
Rural Residential Lands Zone (RR-RCP)	LC 16.231
Destination Resort Zone (DR-RCP)	LC 16.232
Rural Residential Zone (RR, RCP)	LC 16.290

Rural Commercial Zone (RC, RCP)	LC 16.291
Rural Industrial Zone (RI, RCP)	LC 16.292
Rural Public Facilities Zone (RPF, RCP)	LC 16.294
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The 30-foot, "structural defensible space" standards would apply to all new residences in the above thirteen zones within the rural area of the Wildland-Urban Interface of Lane County. It would apply to replacement dwellings and to additions to existing dwellings if the proposed addition was 50 percent or more of the square footage of habitable space in the original dwelling. Otherwise, the standards would not apply retroactively to existing residential structures. It would not apply within the urban growth boundaries or city limits of the twelve incorporated cities in the County.

Staff also recommends that all new driveways and roads across land under the control of the property owner proposing to construct or place a new residence in the thirteen zones listed above, comply with the proposed Lane Code 16.266 standards, which have been a requirement of forest land owners for the development of a residence in the Impacted Forest Land Zone (F2) since 1984.

IV. IMPLEMENTATION AND FOLLOW-UP

A. Alternatives/Options

1. **Advisory option** -- Direct staff to coordinate with the Oregon State Fire Marshal, Oregon Department of Forestry, Lane County Fire Defense Board, and individual fire districts to promote an educational format designed to inform Lane County citizens about voluntary actions and advisory fire safety standards for the protection of their property, families and surrounding forest resources.
2. **Mandatory option** -- Direct staff to prepare an ordinance for implementation of mandatory LC 16.266 fire safety standards for new residential development within the WUI and process the ordinance for public hearing before the Board of County Commissioners.

The Board elects the proposed fuels reduction standards would be:

- a. A "structural defensible space" of 30-feet in radius surrounding all new habitable structures within the Wildland-Urban Interface; **or**
- b. A 30-foot primary safety zone and an additional 100-foot secondary fuel break surrounding all new habitable structures within the Wildland-Urban Interface.
3. **Forest Zones only option** -- Direct staff to prepare an ordinance for proposed amendments to LC 16.211(8)(c) to implement the "structural defensible space" standard in the Impacted Forest Land Zone (F2) and process the ordinance for public hearing before the Board of County Commissioners.

4. Direct staff to provide additional information and documentation for the Board's consideration prior to the Board making decisions on these policy issues.

B. Notice

If the Board elects to conduct a public hearing on either of the proposed drafts of LC 16.266 or revisions solely to the fuel break requirements of LC 16.211, staff will be required to mail Ballot Measure 56 written notices to the appropriate rural property owners within the WUI prior to the first evidentiary hearing.

V. ATTACHMENTS

- A. Lane County Planning Commission agenda cover memo, January 30, 2006.
- B. *"Original" Lane Code 16.266 – Working Draft - as of January 23, 2006 (yellow).*
- C. *LC 16.266 Working Draft – "structural defensible space" March 3, 2006 (green).*
- D. Written testimony on proposed Lane Code 16.266 fire safety standards.
- E. Lane County Planning Commission Minutes: February 7, 2006.
- F. Lane County Planning Commission Minutes: April 18, 2006.
- G. Implementing processes for fire safety standards (Excel).

AGENDA COVER MEMO

DATE: January 30, 2006 (Date of Memo)
February 7, 2006 (Date of Public Hearing)

TO: LANE COUNTY PLANNING COMMISSION

FROM: Bill Sage, Associate Planner

I. ISSUE

The Planning Commission will be hearing testimony at 7:00 PM on February 7, 2006 in Harris Hall concerning the proposed Lane Code 16.266 (Draft) for implementation of fire safety standards for new residential development within the Wildland-Urban Interface of rural Lane County.

The LCPC received background information prior to the October 4, 2005 work session. This staff memo will highlight some of that information to bring you up to speed on the proposed fuel break and access standards.

II. DISCUSSION

A. Background

On July 12, 2005, the Board of Commissioners adopted by resolution the Lane County Community Wildfire Protection Plan including the implementation phase consisting of 21 action items.

On August 24, 2005, the Board of Commissioners approved Title III grant funding to implement the 21 action items that included:

Action Item ST: 2.1.1 – Review and make recommendations to Lane County Board of Commissioners for amendments to Rural Residential Zone LC 16.290 (RR) and LC 16.231 (NR) for implementation of fire safety standards within the Wildland-Urban Interface.

In order to address this action item, Land Management Division is required to answer six questions:

- Who should the fire safety standards apply to?
- What will the fire safety standards require?
- How will the standards be implemented?
- Who will have the responsibility of verifying the standards are being met?
- Who will bear the expense for the verification?
- Does it comply with the Lane County Strategic Plan?

B. Analysis

1. Who should the fire safety standards apply to?

Since 1984, Lane County has required owners of forest land, primarily F2 Impacted Forest Land, to construct access driveways and roads as well as fuel breaks around new dwellings and

accessory structures. These regulations were implemented to protect the forest resources on both private and public lands from the threat of a wildfire spreading outward from a residential fire. The public benefited from the protection to a public resource and the property owners benefited from the reduction in risk if their residence were in the path of a wildfire originating somewhere else. It was understood from the outset that the right to a dwelling in a forested area included responsibilities to other property owners and the public. And, some benefits would flow in return.

Wildfires do not respect property or zoning boundaries. They go where winds, fuels and slopes dictate.

Over the past 20 years, people have grown in their respect for wildfires. Most rural residents recognize the names of major wildfires of the past decade that have resulted in catastrophic loss of homes and forests throughout the Pacific Northwest. They also know that without adequate fuel breaks around dwellings, the dwellings became fuel. Without adequate access roads, the emergency fire fighters could not reach the dwellings or forests. Without access, there was no defense against the thirst of the fires for the fuel.

Lane County has been lucky. We haven't had to calculate after a calamity how many homes were spared because of maintained fuel breaks and how many were lost because of inadequate protection standards. We have played with fire to long.

When the Oregon Natural Hazards Workgroup surveyed the stakeholders during the drafting of the Community Wildfire Protection Plan, the overwhelming consensus was that fire safety standards should apply evenly across all zoning districts that provide for residential use. If the safety of lives and property, private and public, is the goal, then the standards should apply where the people reside, shop, are educated and recreate.

Staff recommends that fire safety standards be implemented in the following zoning districts:

Nonimpacted Forest Lands Zone (F-1, RCP)	LC 16.210
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Each of these zones allow owner or caretaker residences and some conditionally permit temporary or permanent habitable structures including medical hardship residences, guest houses, farm help dwellings, bed and breakfast accommodations, child care facilities, residential homes for the elderly or group care facilities, lodges, motels or hotels. Some of these zones also allow facilities used by the public such as schools, conference centers, grange halls, and churches. Employment and commerce for rural residents stem from uses allowed in the commercial and industrial zones. All of these uses are either occupied or frequented by people on a daily basis and the potential lost of life and property due to lack of preparation or

the threat to emergency response personnel are risks that are addressed by the proposed fire safety standards.

2. What will the fire safety standards require?

Lane Code 16.266 requires compliance with objective fire safety standards. It is a composite of F2 Impacted Forest Land Zone - Lane Code 16.211(8)(c)-(e) and the International Urban-Wildland Interface Code (2003), which has its base in the International Building Code and the International Fire Code. The International Building Code, with some revisions, is implemented as the Oregon Specialty Codes. In essence, the proposed LC 16.266 regulations are a tapestry of the International Fire Code, State of Oregon Specialty (building) Codes, and guidelines published by the Oregon Department of Forestry.

Three proactive elements in the proposed standards are essential for protecting people, property and resources within the Wildland-Urban Interface:

- (1) Reduction of fuels surrounding structures;
- (2) Materials and structural standards; and
- (3) Access routes for emergency equipment and evacuation of residents.

The proposed Lane Code 16.266 *Wildland –Urban Interface Protection Standards (WUI, RCP)* are attached as Exhibit “A”.

(1) Reduction of fuels.

Lane Code 16.266 includes standards for “defensible spaces” surrounding the perimeter of a structure based on the risk assessment rating of the subject property and vicinity, and the slope on which the structure will be sited or adjacent to. The standards also require a “secondary fuel break” encircling the defensible space.

- (a) Defensible Space. A “*defensible space*” is a primary fire break surrounding a new residence or accessory structure that is intended to exclude fuels that will produce flame lengths in excess of one foot. LC 16.266 provisions require that ground cover be maintained at less than 24 inches in height, trees be spaced at 15 feet between crowns, and lower branches be limbed to a height of eight feet or above roof lines within ten feet. Gutters and roofs are kept clear of debris and dead fuels on the ground are removed. Landscaping within ten feet of the structure is with nonflammable materials such as rock rather than bark mulch.

A defensible space can vary from:

- 30 feet in radius for a structure in a “low” risk area , approximately 55% of the rural area of the County;
- 50 feet within a “moderate” risk area, approximately 39% of the rural area of the County; or
- 75 feet in a “high” risk area, approximately 6% of the rural area of the County.

A second element, degree of slope, can extend the required distance an additional 10 feet for each 10 degrees of slope within the development site.

The defensible space is mandatory for new residences and accessory buildings and for additions to existing residences when the square footage of the proposed addition is 50% or more of the square footage of the existing residence.

- (b) Secondary Fuel Break. The “*secondary fuel break*” is an area 100 feet in radius around the defensible space. The standards in LC 16.266(b)(i)(bb) are intended to reduce the intensity of an advancing wildfire and the likelihood of a crown fire (the advancement of a fire through the canopy of one tree to another). Trees are spaced and pruned and smaller trees and scrub underneath are removed to prevent a fire from climbing up the “ladder” into the crowns. Slash and dead fuels are removed from the secondary fuel break.

The secondary fuel break is a requirement on a property owner that applies to the subject property he or she owns and the contiguous land that the individual(s) has control over. Small lots or parcels may not provide ample space in some directions for all of the secondary fuel breaks to be implemented. The Building Official has authority, after consultation with the local Fire Protection District, under LC 16.266(9)(a) to acknowledge modifications where the size or configuration of the subject property boundaries do not provide sufficient space to implement the secondary fuel break. Secondary fuel breaks are exempted within sensitive habitat such as riparian corridors, wetlands, and coastal overlay setbacks by LC 16.266(6).

Secondary fuel breaks are intended to provide a “donut” of lesser fuels around structures which a fire will divert to more heavily laden fuel loads and thus not penetrate to the defensible space.

(2) Materials and structural standards.

The “*Structural Fire Standards*” in LC 16.266(2)(c)(i)-(vii) excludes some materials from use in the WUI and requires some construction techniques of property owners.

All roofing materials must comply with Class C rated roof covering. Wood shingle and shake roofs are not allowed on new construction and any replacement of 25% or more of an existing roof must comply with the standard. Additions and alterations to habitable structures must comply with the standard.

Required construction techniques include enclosure of roof eaves and installation of metal mesh screens over attic and foundation vents as well as under decks. All chimneys must have fitted spark arrestors. Exterior materials shall have one-hour fire resistive rating from State of Oregon Structural Special Code, Underwriting Laboratories, American Gypsum Association, or similar testing approval.

Fences within ten feet of a structure shall be open-wire mesh or of noncombustible materials.

(3) Access routes for emergency equipment and evacuation of residents.

The LC 16.266(2)(f) “*Fire Safety Design Standards for Roads and Driveways*” provide for 16-foot travel surfaces for “roads” providing access to two or more dwellings. “Driveways” serving only one dwelling will have 12-foot wide travel surfaces. Both will consist of rock base and gravel surfaces a minimum of six inches in depth. Culverts and

bridges must support a minimum load of 50,000 pounds. Turnouts are required at specified intervals to allow passage of vehicles in opposite directions. Hammerhead turnarounds or cul-de-sacs are required at the end of roads and driveways sufficient for the use by fire district vehicles.

Road and driveway grades are limited to 12 percent without an alternative to the minimum construction standards such as asphalt surfaces with prior approval by the Building Official after consultation with the local fire district pursuant to LC 16.266(3) Modifications and Alternatives.

3. How will the standards be implemented?

The Fire protection standards of LC 16.266(2) would be established by the property owner and verified by the Lane County Building Official as a component of the building permit review and approval process and the required Specialty Code inspections.

The Lane County building inspectors conduct multiple, scheduled inspections at various intervals beginning with site excavation and the construction form inspections, and ending with the final inspection for occupancy. The implementation and verification of the fuel breaks and the driveway or road standards are scheduled at both ends of the building inspection process.

Prior to any vertical construction beyond the setting of forms for the foundation and monolithic pours, the establishment of the defensible space must be inspected and approved. This will most likely be entwined with the request for inspection of the footings and foundation forms. The preliminary approval of the route, grade, and initial layers of rock or gravel of the road or driveway must also be approved at the same time before the concrete is poured for the footings and foundation.

Construction and inspections will continue under the scheduled Specialty Code requirements after the initial approvals are granted.

Prior to the final inspection of the structure or granting of approval for occupancy of a structure, the secondary fuel break and the road or driveway standards must be approved by the building inspectors. No occupancy of the structure for the intended use will be allowed without the final approval of all of the fire safety standards.

4. Who will have the responsibility of verifying the standards are being met?

The Lane County building inspectors currently have the authority and responsibility for inspections of the (1) construction of structures under approved building permits and plans, (2) domestic water systems from a well head to the structure and throughout, (3) plumbing and distribution lines to the septic tank of a subsurface sanitation disposal system, as well as (4) electrical and mechanical installations. The inspectors develop rapport with property owners during these processes and maintain this rapport with developers and contractors from construction site to construction site.

With upfront training by the State Fire Marshall, Lane County Building Official and qualified fire safety personnel, and a continuing reliance on fire protection district personnel for consultations as necessary, the four building inspectors are the logical choice to implement a consistent and efficient verification of the standards on a site by site basis.

5. Who will bear the expense for the verification?

Land Management Division consists of four programs that are dependent on permit fees to finance day-to-day activities such as building permit review and field inspections to insure compliance with State law and local regulations. Whether the Planning Program or the Building Program was to assume the responsibilities, a fee would have to be charged the property owner to cover the expenses of the inspections.

The LMD Planning Program currently does the verification of the fuel break and access standards for new dwellings, replacement dwellings, temporary medical hardship dwellings and guest houses in the Impacted Forest Land Zone (F2). It is part of the verification of conditions of approval for special use permits for those uses in the forest zone. In the fiscal year 2004-2005, the Planning Program conducted 35 verifications of the fire safety standards at a cost to the property owner of \$490.00 per structure. In addition, Planning also conducted fire safety inspections on 48 additional properties for additions, alterations or replacements of forest dwellings originating from the review of building permits at an expense of \$450.00 per structure. Revenue from those verifications in FY 04/05 was:

F2 Verifications	35 @ \$490	= \$17,150
Other verifications	48 @ \$450	= <u>\$21,600</u>
Total	83	\$38,750

These verifications by a member of the Planning staff require coordination between the staff member and the property owner to schedule the site inspections. One or more trips are required to the property to verify the road or driveway and fuel breaks are in compliance with the code.

LMD is proposing to move the verifications to the Building Program and have the four building inspectors conduct the inspections and approvals. There are several reasons for this shift:

- (1) Realities of fire behavior dictate that similar structures regardless of zoning designation need protection of life and property. This means expanding the protection standards from one to thirteen zoning designations.
- (2) Expanding the standards to 13 zoning districts increases the number of building permits needing inspections from the 83 sites in the F2 Impacted Forest Zone to approximately 861 sites spread throughout the 13 zoning districts. One person under the current procedures could not conduct that many inspections on a countywide basis in an efficient manner. Construction or placement permits for new dwellings or accessory buildings throughout the 13 candidate zones totaled 295 in FY 04/05. Construction permits for alteration or additions to existing structures and other categories of development requiring fire safety standards throughout the 13 candidate zones totaled 566 in FY 04/05. Combined, they total 861.

(a) Proposed Fee and Revenue

LMD is proposing a surcharge of \$150.00 to the Building Permit fee for the combined fuel break and access inspections when a new dwelling or accessory structure is built or placed.

It is a reasonable fee considering that two inspections are required for the fuel breaks and two for the road construction in most cases. Other advantages to the property owners and LMD are:

- (1) The reduction in fee from \$490 to \$150 represents a savings for F2 property owners of \$340 per building permit.
- (2) The cost of depreciation of an automobile, maintenance and gas attributed to fire safety inspections are eliminated and the planning staff member's time (wages and overhead) would be re-channeled to planning permit processing.
- (3) Fire safety inspections would be interwoven with construction, plumbing, electrical, mechanical, and final building inspections and conducted in conjunction with one of the other building inspections thus reducing the need for an inspector to go to the property for just the fire safety standards. Travel time and mileage for just a fuel break or driveway inspection would be eliminated at considerable savings to LMD.
- (4) Coordination for scheduling inspections would be processed through the building program's current telephone system for convenience of owner and staff.

In short, building inspectors are qualified to do the inspections and could do them in conjunction with other inspections at opportune times without having to schedule special treks to and from the property and everyone saves money and time. There were 295 in this category in FY 04-05.

LMD is proposing a surcharge of \$75.00 to the Building Permit fee for just the fuel break inspections for an addition or alteration to an existing dwelling or one of the other qualifying development permits. There were 556 of this category in FY 04-05.

Revenue generated from the building inspectors surcharge would be:

New construction	295 @ \$150 = \$ 44,250
Additions, other uses	<u>566 @ \$ 75 = \$ 42,450</u>
	861 \$ 86,700

The above fees were calculated at the four current building inspectors scale and step.

Category 1: \$150.00 Fuel break and road inspections combined for new construction.

Senior Building Inspector @ Step 10 @ \$25.63 hr x 1.814 overhead= \$ 46.86.

Three hours was calculated for completing the required coordination in the field and site inspections over the course of the construction project.

- 3 hours x \$ 46.86 per hour = \$ 140.58

\$10.00 was added for processing the inspection requests and reviewing the PASO fire safety component of the development plans.

Category 2: \$ 75.00 Fuel break inspections only for addition, alterations and other uses.

Senior Building Inspector @ Step 10 @ \$25.63 hr x 1.814 overhead= \$ 46.86.

One and one-half hours was calculated for completing the required coordination in the field and site inspections over the course of the construction project.

- 1 ½ hours x \$ 46.86 per hour = \$ 70.29

\$5.00 was added for processing the inspection requests and reviewing the PASO fire safety component of the development plans.

(b) Use of the revenue and benefits to Lane County.

The added revenue provides an opportunity for LMD to reallocate some personnel hours to the benefit of the programs and citizens.

The successful rapid permit processing of building permits (PASO) implemented in 2003 requires appointments where representatives from the Planning, Building and Sanitation programs meet with the property owner or developer to review and approve the development. The process includes a planner (full time), a plans examiner (on call), and a sanitarian (on call). A fourth position is fully staffed to research, check setbacks on plot plans and log actions, which is shared by three programs (Administration, Planning, and Sanitation) and is staffed each day on a rotation basis. Planning commits a person three days a week with Administration and Sanitation covering one each.

LMD is proposing to use \$86,700 revenue identified above to hire one Land Management Technician within the Building program under the Building Official to staff the PASO process on a full time basis. This would put two full time people in the process, one from Building and one from Planning, and release the rotating personnel and 40 hours per week to be utilized in the parent programs. Planning would benefit from having 24 hours of returned staffing for customer service, permit processing and long range planning projects. Administration and Sanitation would benefit from an additional eight hours of staff time each, back in their respective programs.

The loss of revenue to the Planning Program identified above at \$38,750 would be offset by the 24 hours recovered from the PASO process and the eight hours per week currently committed by Planning for the fuel break and road inspections in the field related to F2 permits.

Reassigning the inspection process to the building inspectors addresses a countywide commitment to fire safety in an efficient manner, improves the PASO building permit process, frees much needed hours for increased productivity in three LMD programs, reduces a financial burden for forest land owners, and provides a valuable service to property owners at a reasonable expense.

(6) Does it comply with the Lane County Strategic Plan.

This Land Management Division proposal must address core strategies in the Lane County Strategic Plan and the implementation of this fee proposal either addresses those strategies directly or will enable the Division to better address them. The strategies are:

A4: Promote Continuous Quality Improvement.

The Division has twice utilized Rapid Process Improvement (RPI) to make changes in the review of building permits; once, in November, 2002 resulting in significant changes to the review process and again in December, 2004 to identify refinements. The principles have also been informally applied in several other work processes in the Division. The Strategic Plan says:

Lane County Government encourages continuous process improvement efforts initiated by work units in County departments.

This fee proposal provides an opportunity to:

- (i) Implement the fire safety standards countywide and improve the verification process by coordinating the standards with Specialty Code inspections by the four building inspectors;
- (ii) Streamline the building permit review process by adding a FTE in the Building Program in balance with the existing FTE in the Planning Program committed to building permit review;
- (iii) Reallocate within LMD the equivalent of one FTE back to Planning Program [24 hours per week: Miller (8), Sillapere (8), Crawford (8)], Sanitation Program [8 hours per week (Lansbery)] and Administration Program [8 hours pr week (Gardner)] to customer service, permit processing, E-commerce, GIS and long-range planning projects;
- (iv) Reallocate the equivalent of 8 hours per week (Nickell) within the Planning Program to permit processing instead of field verifications of fire safety standards; and
- (v) Charge a minimal \$150 fee for review of the fire protection plan and field verification of the standards and use the revenue from the fee to fund the FTE added to the Building Program in (ii), above.

This is a third LMD effort to build on the prior achievements of RPI to serve property owners in the office and the field.

B3: Allocate resources strategically.

The implementation of the proposed Lane Code 16.266 fire safety standards and improvements in LMD service fits into the following *funding priorities*:

a. The County's funding priorities are as follows:

- 1. The County's highest funding priority will be those services that are effective in addressing the immediate and critical life and health safety needs of our citizens.*

Priorities will be guided by the relative severity and immediacy of the threat to life and health safety and or the effectiveness of long-term or future deterrent to threats that the service provides. For prevention services, early intervention will be a higher priority than later intervention.

- 2. This second funding priority is for those services that are a direct response to the County's broad goals. Primary emphasis will be placed on services that relate to:*
 - Personal safety*
 - Property safety*
 - Infrastructure safety*
 - Health safety*

The implementation of the LC 16.266 - *Wildland-Urban Interface Protection Standards(WUI)* throughout the WUI in the rural lands and within the identified thirteen zoning districts will result in the prevention of loss of life, private property and public facilities from the catastrophic impact of wildfires in the future. It will also provide increased protection for private and public forest lands from the threat of fires originating from residential uses.

b. The following resource allocation principles will apply to all budgetary situations:

3. In seeking new sources of revenue, those that allow more flexible spending will be given priority over those that are restricted. However, the county also recognizes in some cases it may be more acceptable to taxpayers or the payers of user fees that certain revenues be dedicated to particular purposes.

LMD is proposing to implement a countywide protection standard, staff the field inspections with existing personnel, and use the revenue generated to fund a position directly associated with the efficient processing of building permits in general and in specific, review of the property owners fire safety plans as part of those building permits.

4. The County will attempt to leverage its County dollars as much as possible. For example, other factors being equal, higher priority will be given to funding those services or programs where the investment of County dollars matches funds provided by the state or federal government or others and a County match is required in order to receive the non-County funds.

The County has completed two phases of planning under Title III of the Secure Rural Schools and Community Self-Determination Act of 2000. In 2004 the Board allocated funding for development of the Community Wildfire Protection Plan (CWPP) that was adopted by resolution on July 12, 2005. On August 24, 2005, the Board authorized Title III funding to implement the action items of the CWPP. A County match is not required to receive the funding for implementation. However, the County does and will in fact expend considerable resources in coordinating the effective implementation of the 21 CWPP action items in the coming years. One of those ongoing expenditures will be insuring that citizens are properly educated about the threat of wildfires and fire safety measures. Another expense will be implementing the fire safety standards consistently in the decades ahead. These Lane Code provisions and the fees structure proposed for their implementation addresses the "implied" match in the formula. Citizens, private corporations and public entities will be required to spend money to protect their lives, structures, infrastructure, and resources. This proposal requires a reasonable fee to insure citizens are informed and establish effective protective standards for their benefit and the 2,000,000 acres of State and Federal lands in Lane County.

8. Lane County will seek funding for innovative projects that can benefit Lane County citizens and are consistent with the other principles stated here.

Lane Code 16.266 fire safety standards will benefit homeowners, neighbors, resource managers, special districts, and local, State and Federal agencies.

D: Revenue Development

For the last three years, the Board has been clear and consistent in directing the Division to keep its expenditures in line with its revenues (not to rely on the General Fund in the event of a deficit) and to operate in a more business-like fashion. The Plan sets out the following standards for user fees:

D2: Identify and recover user fees and charges

- a. Lane County Government will assure that fair and reasonable user fees are established and collected for those services where state law permits such fees and where the usage of the service is affected by consumer choice. We will follow the following principles:*

Those who benefit should pay; those who pay should benefit.

Where appropriate, fees will be based on costs, including reasonable allocations of overhead and a fair return on investment, where appropriate.

The County will also assure that the costs used as the basis for fees reflect efficient levels of operation of the service.

This proposal is consistent with the standards set out in the core strategies above and will provide the financial capacity required to move forward with the implementation of the proposed Lane Code 16.266.

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Attachment B -- Working draft -- as of January 23, 2006 wfs

16.266

Lane Code

16.266

WILDLAND-URBAN INTERFACE COMBINING ZONE (/WUI-RCP) RURAL COMPREHENSIVE PLAN

- (1) Purpose
- (2) Applicability
 - (a) New dwellings and residential units.
 - (b) Replacement of existing dwellings and residential units. Construction of residential accessory structures. Additions to existing dwellings and residential accessory structures.
 - (c) Exemptions.
- (3) Definitions
- (4) Process and General Standards
 - (a) Submittal of building permit
 - (b) Site Development Plan
 - (c) Approval of defensible space and preliminary access road/driveway design
 - (d) Approval of secondary fuel break and final access road/driveway construction
 - (e) Maintenance in perpetuity
 - (f) Compliance
 - (g) Fire Protection District
 - (h) Fire Protection Plan
- (5) Setbacks
- (6) Defensible Space and Secondary Fuel Breaks
 - (a) Defensible Space
 - (b) Secondary Fuel Break
 - (c) Exceptions to Defensible Space and Secondary Fuel Break Standards
 - (i) Class I Stream Riparian Regulations
 - (ii) National Wetlands Inventory
 - (iii) Coastal Resource Management Plan Combining Zones
- (7) Structural Standards
 - (a) Roofs
 - (b) Eaves, fascias and soffits
 - (c) Fences
 - (d) Attic and foundation vents
 - (e) Chimneys
 - (f) Unenclosed accessory structures – decks, porches
 - (g) Liquefied petroleum gas (LP-gas)

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- (h) Water storage and pumping facilities
- (i) Electrical pumps
- (8) Road and Driveway Standards
 - (a) Non-applicability to commercial farm and forest activities and uses
 - (b) Route of access
 - (c) Roads
 - (d) Driveways
 - (e) Dead-end private driveways and roads
 - (i) Hammerhead Turnarounds
 - (ii) Cul-de-sac Turnarounds
 - (f) Bridges and culverts
 - (g) Road and driveway grade
 - (h) Road naming and addressing
 - (i) Turn outs
- (9) Modifications and Alternatives
 - (a) Building Official authority
 - (b) Risk assessment – fire hazard maps

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16.266 Wildland-Urban Interface Combining Zone (/WUI, RCP).

- (1) Purpose. The purposes of the Wildland–Urban Interface Combining Zone (/WUI-RCP) are:
- (a) To implement the policies of the Lane County Rural Comprehensive Plan and the goals, objectives and action items of the Lane County Community Wildfire Protection Plan (July 2005);
 - (b) To provide a defensible space and fuels reduction zones around structures to protect life, property, communities, and private and public resource lands from the threat of wildfire within the Wildland-Urban Interface (WUI) of rural Lane County.
- (2) Applicability.
- (a) The Defensible Space and Secondary Fuel Break standards of LC 16.266(6), Structural Standards of LC 16.266(7), and the Road and Driveway Standards of LC 16.266(8) shall apply to all new dwellings and residential units within the Wildland-Urban Interface (WUI) designated for protection in the Rural Comprehensive Plan, in the zoning districts identified in Table 1 below.

Table 1

Zone Name	Chapter
Nonimpacted Forest Lands Zone (F-1, RCP)	LC 16.210
Impacted Forest Lands Zone (F-2, RCP)	LC 16.211
Exclusive Farm Use Zone (E-RCP)	LC 16.212
Natural Resource Zone (NR-RCP)	LC 16.213
Marginal Lands Zone (ML-RCP)	LC 16.214
Park and Recreation Zone (PR-RCP)	LC 16.215
Rural Residential Lands Zone (RR-RCP)	LC 16.231
Destination Resort Zone (DR-RCP)	LC 16.232
Rural Residential Zone (RR, RCP)	LC 16.290
Rural Commercial Zone (RC, RCP)	LC 16.291
Rural Industrial Zone (RI, RCP)	LC 16.292
Rural Public Facilities Zone (RPF, RCP)	LC 16.294
Rural Park and Recreation Zone (RPR, RCP)	LC 16.295

- (b) The Defensible Space and Secondary Fuel Break standards of LC 16.266(6) and the Structural Standards of LC 16.266(7) shall apply to the replacement of lawfully existing dwellings, residential units, construction of new residential accessory structures, and to additions to existing dwellings, residential units, and residential accessory structures that exceed 50% of the existing floor area of the structure being modified.
- (c) The following structures within the WUI combining zone are exempted from LC 16.266 fire safety standards:
 - (i) Accessory structures not exceeding 200 square feet in floor area when located at least 50 feet from buildings containing habitable spaces.
 - (ii) Agricultural buildings at least 50 feet from buildings containing habitable space.
 - (iii) Forest-related structures accessory to the production of trees or the processing of forest products at least 50 feet from buildings containing habitable space.

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The following use within the WUI combining zone is exempted from LC 16.266(6) requirements to establish a defensible space and secondary fuel break:

- (iv) Land cultivated in agricultural crops or products including but not limited to horticultural specialties (berry, nut, or fruit orchards), Christmas tree plantations, and nurseries.

(3) Definitions For the purposes of this LC 16.266 the following definitions shall apply.

(a) "Agricultural buildings" means a structure located on a farm and used in the operation of the farm for:

- (i) Storage, maintenance or repair of farm machinery and equipment;
- (ii) The raising, harvesting and selling of crops;
- (iii) The feeding, breeding, management and sale of, or the produce of, livestock, poultry, fur-bearing animals or honeybees;
- (iv) Dairying and the sale of dairy products;
- (v) Any other agricultural or horticultural use or animal husbandry, or any combination thereof, including the preparation and storage of the produce raised on the farm for human use and animal use and disposal by marketing or otherwise; or
- (vi) An equine facility used by the farm owner or public for:
 - (A) Stabling or training equines; or
 - (B) Riding lessons and training clinics.

"Agricultural building" does not include:

- (i) A dwelling;
 - (ii) A structure used for a purpose other than growing plants in which 10 or more persons are present at any one time;
 - (iii) A structure regulated by the State Fire Marshall pursuant to ORS chapter 476 .
- (b) "Defensible space" is an area either natural or manmade, where material capable of allowing a fire to spread unchecked has been treated, cleared, or modified to slow the rate and intensity of a wildfire originating from or advancing to a structure and to create an area for fire suppression operations to occur.
- (c) "Development site" refers to the specific location on a lot, parcel, or piece of land where development is intended to occur and also includes the defensible space and secondary fuel break surrounding the proposed building site.
- (d) "Driveway" means a way of access used for only one dwelling or manufactured dwelling.
- (e) "Fire-resistive vegetation" refers to vegetation that will not produce flame lengths in excess of 12 inches.
- (f) "Ladder fuels" means vegetation that serves as a link between grasses and tree tops. This arrangement can carry fire to a structure or from a structure to vegetation.
- (g) "Public road" shall be as defined in LC 15.010.

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- (h) "Residential accessory structure" includes structures incidental, appropriate and subordinate to a residence including garages, shops, guest houses, etc.
 - (i) "Residential units " includes multiple-family dwelling, duplex, family day care facility, residential care facility, lodge, hotel, motel, rental cabin or condominium.
 - (j) "Road" means a way of access used for more than one dwelling, manufactured dwelling, or residential accessory structure.
 - (k) "Secondary fuel break" is a fuel break extending a minimum of 100 feet in all directions around the defensible space.
 - (l) "Vertical construction" includes any aspect of construction except the following actions performed in conformance with the approved construction plans:
 - (i) Excavation of the development site,
 - (ii) Construction of the access road or driveway,
 - (iii) Setting of construction forms prior to the pouring of footings, stem walls or a monolithic slab.
 - (m) "Wildland-Urban Interface" is the zone where structures and other human development meets or intermingles with undeveloped wildland fuels or other natural features. In Lane County these areas are identified on the Community Wildfire Protection Plan Wildland Urban Interface Map.
- (4) Process and General Standards
- (a) Prior to review of the fire protection site plan, the applicant shall submit the application form required by the Building Official and pay the fee as established by order of the Board of County Commissioners.
 - (b) Prior to issuance of a building permit for the construction of a new dwelling, manufactured dwelling, replacement dwelling, accessory structure, or addition to a dwelling or other structure within the Wildland-Urban Interface (WUI), the property owner shall secure approval from the Building Official for a Fire Protection Site Plan clearly showing the following:
 - (i) Location of the access point of the private road or driveway with the right-of-way of a public road;
 - (ii) Route of the proposed road or driveway from the public road to the development site addressing the standards of LC 16.266(8), and depicting all sections of the road or driveway with grades over 12 percent. Any sections with grades in excess of 12 percent shall require prior approval of a modification pursuant to LC 16.266(9)(a);
 - (iii) Location of the proposed dwelling or structures with dimensions to at least two property lines and all property lines within 130 feet of the perimeter of the proposed structures;
 - (iv) Location of the proposed defensible space and secondary fuel break around the proposed structures in compliance with the standards of LC 16.266(6);
 - (v) Location of any existing structures and interior roads or driveways on the subject property;

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- (vi) Location of the proposed subsurface sewage sanitation system and proposed well site or other domestic water source;
 - (vii) Location of trees and vegetation within the defensible space and secondary fuel break that will be removed;
 - (viii) Area and degree where slopes exceed 10 percent within the proposed defensible space and secondary fuel breaks;
 - (ix) Location of any Class I Streams designated for riparian protection by the Rural Comprehensive Plan or delineated wetlands designated for protection on National Wetland Inventory (NWI) maps;
 - (x) Photographs of the location of the proposed dwelling or structure and the vegetated area surrounding proposed defensible space and secondary fuel breaks.
- (c) Prior to any vertical construction pursuant to an issued building permit within the Wildland-Urban Interface, the property owner shall secure approval from the Building Official that:
- (i) The removal of slash, snags, ground fuels, ladder fuels, dead trees and thinning of live trees within the defensible space are in compliance with LC 16.266(6)(a); and
 - (ii) The route and grade of the access road and/or driveway complies with LC 16.266(8).
- (d) Prior to approval for final inspection of the dwelling or structure and certificate of occupancy by the Building Official, the property owner shall:
- (i) Secure approval for completion of the secondary fuel break in compliance with LC 16.266(6)(b) standards; and
 - (ii) Secure final approval for construction of the road and/or driveway in compliance with LC 16.266(8) standards.
- (e) All defensible space, secondary fuel break, road and driveway, and water system standards of LC 16.266 shall be maintained in perpetuity on an annual basis prior to fire seasons for as long as the structure or use remains on the property.
- (f) Failure to maintain the fire safety standards of LC 16.266 shall be subject to enforcement by the Lane County Building Official and/or Compliance Officer.
- (g) Fire Protection District. New dwellings or manufactured dwellings shall be located upon a lot or parcel within a fire protection district or shall be provided with residential fire protection as evidenced by a long term contract with a fire protection district (FPD) recorded in Lane County Deeds and Records.
- (i) If the dwelling or manufactured dwelling is not within a FPD, the applicant shall provide evidence that the applicant has submitted a written request for a long term services contract with the nearest FPD and to be annexed into the FPD boundaries.
 - (ii) If the FPD determines that inclusion within a FPD or contracting for residential fire protection is impracticable, the Building Official shall require that the property owner implement and maintain a Fire Protection Plan as an alternative means for

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protecting the dwelling or manufactured dwelling from fire hazards, consistent with Lane County.

- (h) Fire Protection Plan. When the Building Official determines a Fire Protection Plan is required, that Plan shall include the following:
- (i) Implementation and maintenance in perpetuity of a 100-foot wide defensible space surrounding the perimeter of the dwelling or manufactured dwelling in compliance with the standards in LC 16.266(6)(a), and an additional secondary fuel break in compliance with LC 16.266(6)(b).
 - (ii) An external fire protection system to mitigate the threat to the dwelling or accessory structures by a wildfire or the threat to the forest resource base from a fire originating on the parcel, in compliance with the following standards:
 - (A) Provide a minimum of two all-weather, one-inch valve, fire hydrants and two fire hose reels with sufficient length of fire suppression hose at each hydrant to reach around fifty percent of the exterior of the dwelling and residential accessory structures. The hose reels shall be installed along the perimeter of the defensible space. The minimum fire hose interior diameter shall be one-inch;
 - (B) Provide a fire nozzle with each fire hose with multiple settings to allow stream, spray and fog applications of water on the exterior of the structures and landscape;
 - (C) Provide and annually maintain a water supply and pumping system connected to the fire hydrants in compliance with the following minimum requirements: a swimming pool, pond, lake or similar body of water that at all times contains a minimum of 4,000 gallons of water; or a stream that has a continuous year-round flow of at least one cubic foot per second; or a 1,500-gallon storage tank, e.g., concrete septic tank connected to an operating groundwater well for refilling; or a high-yield groundwater well with a minimum yield of 30 gallons per minute for one hour; and a pump system capable of maintaining 80 psi line pressure to the two fire hydrants. If the water supply and pump system are connected to the domestic water supply, the property owner shall install an anti-backflow device approved by the Building Official to avoid contamination of the domestic water system.
 - (D) The property owner shall provide verification from the Water Resources Department that any permits or registrations required for water diversions have been obtained or that such permits or registrations are not required under state law for the use; and
 - (E) Road or driveway access to within 10 feet of the water supply shall be provided for pumping units. The road or driveway access shall accommodate the turnaround of fire fighting equipment during the fire season.
 - (F) Permanent signs shall be posted along the access route to indicate the location of the emergency water source.

(5) Setbacks

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(i) Setbacks. Dwellings or manufactured dwellings, residential units and accessory structures shall be at least 30 feet away from any ravine, ridge or slope greater than 40 percent;

(6) Defensible Space and Secondary Fuel Breaks.

(a) Defensible Space.

Property owners are required to create and maintain a defensible space for all dwellings, manufactured dwellings, residential units, accessory structures, and additions of 50% or more of floor area to dwellings and accessory structures on land that is owned or controlled by the property owner within the Wildland-Urban Interface. The applicable defensible space shall be determined by either method set forth in 16.266(6)(a)(i) or 16.266(6)(a)(ii).

(i) The required defensible space for a structure identified in LC 16.266(6)(a) shall be linked to the severity of the fire hazard as determined by the risk assessment rating for the site in the Lane County Community Wildfire Protection Plan (CWPP). The risk assessment rating for all unincorporated areas are depicted on a series of five assessment area maps entitled "CWPP Assessment Areas". The minimum defensible space for specific fire hazard areas shall be as noted in *Table 2*, below.

Table 2

WUI Area Fire Hazard	Minimum Defensible Space (10% slope or less)
Low hazard	30 feet in radius around perimeter
Medium Hazard	50 feet in radius around perimeter
High hazard	75 feet in radius around perimeter
The minimum defensible space shall be increased by 10 feet for each 10 percent increase in slope over 10 percent for a maximum of 100 feet.	

The WUI Area Fire Hazard Maps shall be adopted by the Board of County Commissioners. The WUI Area Fire Hazard Maps shall indicate the general location of areas of low, moderate and high susceptibility to the threat of wildfire. These maps shall be based on the best available risk assessment information and may be amended by the Planning Director after consultation with the applicable Fire Protection District or Oregon Department of Forestry based upon the receipt of corrected, updated or refined data or upon the revision of studies upon which the maps were initially based.

(ii) The defensible space for a structure identified in LC 16.266(6)(a) may be determined by the Fire Chief or his/her appointed representative of the applicable Fire Protection District, or the Fire Chief or appointed representative of another Fire Protection District pursuant to a mutual aid agreement, or the Oregon Department of Forestry. Prior to the submittal of a building permit application, the property owner shall secure written certification from the appropriate fire protection professional that an inspection of the development site has occurred. The certification shall include the following:

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- (A) A signed and dated certification checklist from the appropriate fire protection professional indicating the hazard rating for the proposed development site including the dimensions of the required defensible space based upon the determined hazard rating, slopes and other important factors; and
 - (B) A plot plan that conforms to the standards set forth in LC16.266 (4)(b)(i)-(x) that has been signed and dated by the appropriate fire protection professional. The plot plan shall clearly identify the specific development site that has been reviewed under certification checklist.
- (iii) Except as specifically allowed, the defensible space shall be cleared of vegetation that is not fire-resistive. Suggestions for specific types of vegetation that may reduce the risk from wildfire can be found in the OSU Extension Service publication *Fire-Resistant Plants for Oregon Home Landscapes*, which is available from Oregon Department of Forestry and Lane County Land Management Division. Vegetation within the defensible space could include green lawns or cultivated ground cover such as succulents or similar plants, and fire resistant vegetation not to exceed 24 inches in height. Fire-resistive vegetation burns at a relatively low intensity, with slow rates of spread and with short flame lengths. The following are characteristics of fire resistant vegetation:
- (A) Growth with little or no accumulation of dead vegetation (either on the ground or standing upright).
 - (B) Nonresinous plants (willow, poplar or tulip trees).
 - (C) Low volume of total vegetation (for example, a maintained grass area with a height of six inches or less, as opposed to a forest or shrub-cover land).
 - (D) Plants with high live fuel moisture (plants that contain a large amount of water in comparison to their dry weight).
 - (E) Drought tolerant plants (deeply rooted plants with thick, heavy leaves).
 - (F) Stands without ladder fuels (plants without small, fine branches and limbs between ground and the canopy of overtopping shrubs and trees).
 - (G) Plants requiring little maintenance (slow-growing plants that, when maintained, require little care).
 - (H) Plants with woody stems and branches that require prolonged heating to ignite).
- (iv) Trees are allowed within the defensible space, provided the horizontal distance between crowns of adjacent trees and crowns of trees and structures, overhead electrical facilities or unmodified fuel is not less than 15 feet. "Tree crowns" include the primary and secondary branches growing out from the main stem, together with twigs and foliage. "Distance between crowns" shall be the measured from the extension of the foliage of one tree to the foliage of another tree. Trees shall be limbed to a height of 8 feet above the ground surface adjacent to the tree or to three times the height of shrubbery located under tree canopies. Tree crowns shall be pruned to maintain a minimum horizontal clearance of 10 feet between the canopy and the structure. Portions of tree crowns within 15 feet of the outlet of a

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chimney shall be pruned to maintain a minimum horizontal clearance of 15 feet. Deadwood and litter shall be regularly removed from trees.

- (v) Accumulated leaves, needles, and other dead vegetation shall be removed from gutters and not allowed to accumulate to a depth greater than one inch on the ground beneath trees.
 - (vi) Lawns or pathways of nonflammable materials (i.e., rock) instead of flammable materials (i.e., bark mulch) shall be used for landscaping within 10 feet of the structure.
 - (vii) Stacks of firewood or kindling shall be located outside the defensible space or inside an enclosed structure.
- (b) Secondary Fuel Break. Where the surrounding landscape of the subject lot or parcel or contiguous lots or parcels are owned or under the control of the property owner, a 100-foot secondary fuel break surrounding the defensible space shall be required.
- (i) Vegetation and fuels shall be removed from the secondary fuel break to reduce the overall intensity of any wildfire and the likelihood of crown fires.
 - (ii) Trees within the secondary fuel break shall have a maintained horizontal distance between crowns of adjacent trees, overhead electrical facilities or unmodified fuel of not less than 10 feet. Trees shall be limbed to a height of 8 feet above the ground surface adjacent to the tree.
 - (iii) Understory vegetation (shrubs and brush) within the secondary fuel break shall be pruned to not more than 3 feet of vertical height. Small trees and brush growing underneath larger trees shall be removed or the larger trees shall be limbed to three times the height of shrubbery located under the tree canopies to prevent spread of fire up into the crowns of the larger trees. Dead fuels and slash shall be removed.
- (c) Exceptions to the Defensible Space and Secondary Fuel Break Standards.
- (i) Class I Stream Riparian Regulations
 - (I) Only the minimal removal or alteration of vegetation within the Riparian Setback Area is allowed to establish a Defensible Space. The removal shall not exceed the limitations of LC 16.253(2)(a) and (b).
 - (J) Secondary Fuel Breaks are not required in the Riparian Setback Area.
 - (ii) Wetlands. No vegetation removal or disturbance of topography shall occur within a jurisdictional wetlands site in the National Wetland Inventory for purposes of establishing a Defensible Space or Secondary Fuel Break, without the prior approval of the Oregon Department of State Lands.
 - (iii) Coastal Resource Management Plan. For development within a zone listed in Table 3, the more restrictive protection standards for alteration or removal of vegetation or disturbance of topography shall prevail over the fire safety standards of LC 16.266.
 - (A) Defensible Space. Vegetation removal and alteration to establish a Defensible Space shall not exceed the vegetation removal/alteration limits of the Site and Development Requirements of the zones listed in Table 3, below.

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- (B) Secondary Fuel Breaks. Secondary Fuel Breaks are not required in the Site and Development Requirements setback areas of the zones listed in Table 3, below.

Table 3

Zone Name	Chapter
Natural Estuary Zone (NE-RCP)	LC 16.234
Conservation Estuary Zone (CE-RCP)	LC 16.235
Development Estuary Zone (DE-RCP)	LC 16.236
Significant Natural Shorelands Combining Zone (/SN-RCP)	LC 16.237
Prime Wildlife Shorelands Combining Zone (/PW-RCP)	LC 16.238
Residential Development Shorelands Combining Zone (/RD-RCP)	LC 16.240
Shorelands Mixed Development Combining Zone (/MD-RCP)	LC 16.241

(7) Structural Standards

- (a) All habitable roofed structures shall be regulated by the State of Oregon Structural Specialty Code or the State of Oregon One and Two Family Specialty Code. Roofing for dwellings and manufactured dwellings shall be asphalt shingles in accordance with Section R903, slate shingles in accordance with Section R904, metal roofing in accordance with Section R905, tile, clay or concrete shingles in accordance with Section R907, or other approved roofing which is deemed to be equivalent to Class C rated roof covering. Wood shingles and shake roofs are not permitted. When 50 percent or more of the roof covering of any dwelling or manufactured dwelling is repaired or replaced in a twelve month period, the roof covering shall be made to comply with this section (Section R324).
- (b) Combustible eaves, fascias and soffits shall be enclosed with solid materials with a minimum thickness of $\frac{3}{4}$ inch. No exposed rafter tails shall be permitted unless constructed of heavy timber materials.
- (c) Fences within 10 feet of a structure shall be constructed with open-wire mesh or noncombustible material to prevent fire from spreading to the structure. Stone and masonry walls can act as heat shields and deflect flames within the defensible space.
- (d) Attic ventilation openings, foundation or under floor vents, or other ventilation openings in vertical exterior walls and vents through roofs shall not exceed 144 square inches each. Such vents shall be covered with noncombustible corrosion-resistant mesh with openings not to exceed $\frac{1}{4}$ inch. Under floor ventilation openings shall be located as close to grade as practical.
- (e) Chimneys serving fireplaces, barbecues, incinerators or decorative heating appliances in which solid or liquid fuel is used, shall be provided with a spark arrester. Spark arresters shall be constructed of woven or welded wire screening of 12 USA standard gauge wire (0.1046 inch)(2.66 mm) having openings not exceeding $\frac{1}{2}$ inch (12.7 mm).
- (f) When an unenclosed accessory structure is attached to a building with habitable spaces and the projection, such as a deck, is located and constructed so that the structure or any portion thereof projects over a descending slope surface greater than 10 percent, the

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projection shall have all under-floor areas enclosed to within 6 inches of the ground with reinforced framing covered with noncombustible corrosion-resistant mesh with openings not to exceed ¼ inch.

- (g) Liquefied petroleum gas (LP-gas) containers shall be located within the defensible space of a residential structure or provided with a separate defensible space of not less than 30 feet in radius. LP-gas includes any material which is composed predominantly of the following hydrocarbons or mixtures of them: propane, propylene, butane (normal butane or isobutane) and butylenes. Minimum separation between containers and buildings, public ways or lot lines of adjoining property shall be in compliance with the Oregon Fire Code, Chapter 38 Liquefied Petroleum Gases, Section 3804.
- (h) Water storage and pumping facilities shall be provided with a defensible space of not less than 30 feet clear of nonfire-resistive vegetation or growth around and adjacent to such facilities. Persons owning, controlling, operating or maintaining water storage and pumping systems requiring this defensible space are responsible for clearing and removing nonfire-resistive vegetation and maintaining the defensible space on the property owned, leased or controlled by said person. Portions of trees that extend within 15 feet of combustible portions of water storage and pumping facilities shall be removed.
- (i) When electrical pumps are used to provide the required water supply, such pumps shall be connected to a standby power source to automatically maintain electrical power in the event of power loss. The standby power source shall be capable of providing power for a minimum of two hours in accordance with the NEC *Electrical Code*. A standby power source is not required where the primary power service to the pumps is underground as approved by the Building Official.

(8) Road and Driveway Standards

- (a) Private driveways, roads or bridges accessing only commercial forest or farm uses are not subject to compliance with these fire safety design standards for roads and driveways.
- (b) The route of access for fire fighting equipment, from the public road to the structure shall comply with the standards specified in LC 16.266(8). Evidence of compliance with these standards shall include objective information about:
 - (i) The fire fighting equipment,
 - (ii) The physical nature of the access route,
 - (iii) The nature of any proposed improvements to the access route, and
 - (iv) Written verification of compliance from the agency providing fire protection, or a written certification of compliance from an Oregon Registered Professional Engineer.
- (c) Roads shall have unobstructed widths of at least 20 feet including:
 - (i) Travel surfaces with widths of at least 16 feet constructed with gravel to a depth sufficient to provide access for fire fighting vehicles with a minimum depth of at least six-inches or with paving having a crushed base equivalent to six inches of gravel;

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- (ii) An unobstructed area two feet in width at right angles with each side of the constructed surface;
 - (iii) Inside curve radii of at least 50 feet; and
 - (iv) A vertical clearance of at least 13 feet 6 inches.
 - (v) Access points within public road right-of-ways shall have approach widths, aprons, and culverts in compliance with Lane County Public Works facility permit requirements.
- (d) Driveways shall have unobstructed widths of at least 16 feet including:
- (i) Travel surfaces with 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;
 - (ii) An unobstructed area two feet in width at right angles with each side of the constructed surface;
 - (iii) Inside curve radii of at least 50 feet; and
 - (iv) A vertical clearance of at least 13 feet 6 inches.
- (e) Dead-end driveways and roads not maintained by Lane County shall meet these standards for turnarounds. Any dead-end road 150 feet or longer shall include a turnaround at the terminus. Long driveways or roads shall have additional turnarounds spaced at intervals of not less than 500 feet. Turnarounds shall comply with these design and construction standards:
- (i) 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/driveway as near as possible at a 90 degree angle with a 30-foot radius and extend from the road/driveway at that angle for a distance of at least 36 feet in both directions (72 feet total across the "T"). Other alternatives are available with prior approval of the design by the Building Official after consultation with the applicable Fire Protection District. They shall be constructed to the standards for driveways in LC 16.266(7)(d) 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
 - (ii) Cul-de-sac Turnarounds.
 - (A) Cul-de-sacs shall have a turn-around width with a radius of at least 45 feet and an improved surface with a radius 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
 - (B) No cul-de-sac or hammerhead turnaround 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.
- (f) 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 Building Official may allow a single-span bridge utilizing a

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converted railroad flatcar as an alternative to the road and driveway surface width requirements, subject to verification from an engineer licensed in the State of Oregon that the structure will comply with the minimum gross weight standard of 50,000 lbs.

- (g) Road and driveway grades shall not exceed 12 percent except for short distances when topographic conditions make lesser grades impractical. In such instances, grades up to 16 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 12 percent are adequate for the fire fighting equipment of the agency providing fire protection to access the use or structure(s) and water supply.
- (h) Roads shall be named and addressed in compliance with LC 15.305 through 15.335.
- (i) Driveways in excess of 400 feet shall provide for a 50-foot long and eight-foot wide passage spaces (turn outs) with six inches in depth of gravel and at maximum intervals of 400 feet. Shorter or longer intervals between turnouts may be authorized by the Building Official after consultation with the applicable Fire Protection District or Oregon Department of Forestry where the Building Official inspects the road and determines that topography, vegetation, corners or turns obstruct visibility.

(9) Modifications and Alternatives

- (a) Wherever there are practical difficulties involved in carrying out the provisions of LC 16.266(7) or (8), the Building Official, after consultation with the applicable Fire Protection District and/or Oregon Department of Forestry, shall have the authority to grant modifications for individual cases, provided the Building Official shall first find that special siting circumstances make the strict letter of this code impractical and the modification granted is the minimum deviation from the required standard as is practicable under the circumstances. The circumstances and action granting the modification shall be entered in the building permit files of Lane County Land Management Division.
- (b) The determination that a development site is within a Low, Medium or High fire hazard area may be modified by the Planning Director or by the appropriate Fire Protection District or the Oregon Department of Forestry as outlined in 16.266(6)(a)(i). The modification shall be based on objective evidence that supports a finding that the development site is within a different fire hazard area than shown on the adopted fire hazard map.

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Attachment C - Working draft – “structural defensible space” March 3, 2006

16.266

Lane Code

16.266

WILDLAND-URBAN INTERFACE COMBINING ZONE (/WUI-RCP) RURAL COMPREHENSIVE PLAN

- (1) Purpose
- (2) Applicability
 - (a) New dwellings and residential units.
 - (b) Replacement of existing dwellings and residential units. Construction of residential accessory structures. Additions to existing dwellings and residential accessory structures.
 - (c) Exemptions for structures.
- (3) Definitions
- (4) Process and General Standards
 - (a) Submittal of building permit
 - (b) Wildfire Risk Classification Rating
 - (c) Risk Classification Rating Certification
 - (d) Site Development Plan
 - (e) Approval of Structural Defensible Space and preliminary access road/driveway design
 - (f) Approval of Secondary Fuel Break and final access road/driveway construction
 - (g) Maintenance of fire safety standards in perpetuity
 - (h) Compliance
 - (i) Fire Protection District
 - (j) Fire Protection Plan
- (5) Setbacks
- (6) Structural Defensible Space and Secondary Fuel Break
 - (a) Structural Defensible Space
 - (b) Structural Defensible Space Characteristics
 - (c) Secondary Fuel Break
 - (d) Road and Driveway Defensible Space
 - (e) Water Storage Defensible Space
 - (f) Exceptions to Structural Defensible Space and Secondary Fuel Break Standards
 - (i) Class I Stream Riparian Regulations
 - (ii) National Wetlands Inventory
 - (iii) Coastal Resource Management Plan Combining Zones
 - (iv) Willamette Greenway
- (7) Road and Driveway Standards
 - (a) Non-applicability to commercial farm and forest activities and uses

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- (b) Route of access
- (c) Road standards
- (d) Driveway standards
- (e) Dead-end private driveways and roads
 - (i) Hammerhead Turnarounds
 - (ii) Cul-de-sac Turnarounds
- (f) Bridges and culverts
- (g) Road and driveway grade
- (h) Road naming and addressing
- (i) Turn outs
- (8) Modifications and Alternatives
 - (a) Building Official authority
 - (b) Risk assessment – Fire Hazard Maps

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16.266 Wildland-Urban Interface Combining Zone (/WUI, RCP).

- (1) Purpose. The purposes of the Wildland-Urban Interface Combining Zone (/WUI-RCP) are:
- (a) To implement the policies of the Lane County Rural Comprehensive Plan and the goals, objectives and action items of the Lane County Community Wildfire Protection Plan (July 2005);
 - (b) To provide a defensible space and fuels reduction zones around structures to minimize or mitigate a wildfire hazard or risk to life, property, communities, and private and public resource lands within the Wildland-Urban Interface (WUI) of rural Lane County.
 - (c) It is recognized that owners have a variety of objectives to achieve while applying the standards, including objectives related to aesthetics, dust barriers, fish and wildlife habitat, gardening, soil stabilization, sound barriers, and visual barriers. It is the intent of the standards to allow owners to meet such objectives, provided there is no compromise of the standards needed to mitigate wildfire hazards or risks.
 - (d) The standards are considered to be minimum measures which are intended to improve the survivability of structures during a wildfire, but which will not guarantee survivability.
- (2) Applicability.
- (a) The Structural Defensible Space and Secondary Fuel Break standards of LC 16.266(6) and the Road and Driveway Standards of LC 16.266(7) shall apply to all new dwellings and residential units within the Wildland-Urban Interface (WUI) designated for protection in the Rural Comprehensive Plan, in the zoning districts identified in Table 1 below.

Table 1

Zone Name	Chapter
Nonimpacted Forest Lands Zone (F-1, RCP)	LC 16.210
Impacted Forest Lands Zone (F-2, RCP)	LC 16.211
Exclusive Farm Use Zone (E-RCP)	LC 16.212
Natural Resource Zone (NR-RCP)	LC 16.213
Marginal Lands Zone (ML-RCP)	LC 16.214
Park and Recreation Zone (PR-RCP)	LC 16.215
Rural Residential Lands Zone (RR-RCP)	LC 16.231
Destination Resort Zone (DR-RCP)	LC 16.232
Rural Residential Zone (RR, RCP)	LC 16.290
Rural Commercial Zone (RC, RCP)	LC 16.291
Rural Industrial Zone (RI, RCP)	LC 16.292
Rural Public Facilities Zone (RPF, RCP)	LC 16.294
Rural Park and Recreation Zone (RPR, RCP)	LC 16.295

- (b) The Structural Defensible Space and Secondary Fuel Break standards of LC 16.266(6) shall apply to the replacement of lawfully existing dwellings and residential units, construction of new residential accessory structures, and to additions to existing

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dwellings, residential units, and residential accessory structures that exceed 50% of the existing floor area of the structure being modified.

- (c) Lawfully established dwellings, manufactured dwellings, residential units and residential accessory structures existing on _____, the date of effectiveness of Lane Code 16.266, are exempt from compliance with LC 16.266 fire safety standards.

The following new structures within the WUI combining zone are also exempted from LC 16.266 fire safety standards:

- (i) Residential accessory structures not exceeding 200 square feet in floor area.
- (ii) Agricultural buildings.
- (iii) Forest-related structures accessory to the production of tree stock or the processing of forest products.

The following agricultural uses within the WUI combining zone are exempted from LC 16.266(6) requirements to establish a defensible space and secondary fuel break:

- (iv) Land cultivated in agricultural crops or products including but not limited to horticultural specialties (berry, nut, or fruit orchards), Christmas tree plantations, vineyards, and nurseries including greenhouses.

- (3) Definitions. For the purposes of this LC 16.266 the following definitions shall apply.

- (a) "Agricultural buildings" means a structure located on a farm and used in the operation of the farm for:

- (i) Storage, maintenance or repair of farm machinery and equipment;
- (ii) The raising, harvesting and selling of crops;
- (iii) The feeding, breeding, management and sale of, or the produce of, livestock, poultry, fur-bearing animals or honeybees;
- (iv) Dairying and the sale of dairy products;
- (v) Any other agricultural or horticultural use or animal husbandry, or any combination thereof, including the preparation and storage of the produce raised on the farm for human use and animal use and disposal by marketing or otherwise; or
- (vi) An equine facility used by the farm owner or public for:
 - (A) Stabling or training equines; or
 - (B) Riding lessons and training clinics.

"Agricultural building" does not include:

- (i) A dwelling;
 - (ii) A structure used for a purpose other than growing plants in which 10 or more persons are present at any one time;
 - (iii) A structure regulated by the State Fire Marshall pursuant to ORS Chapter 476.
- (b) "Defensible space" is an area either natural or manmade, where material capable of allowing a fire to spread unchecked has been treated, cleared, or modified to slow the

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rate of spread and intensity of a wildfire originating from or advancing to a structure and to create an area in which fire suppression operations may more safely occur.

- (c) "Development site" refers to the specific location on a lot, parcel, or piece of land where development is intended to occur and also includes the defensible space and secondary fuel break surrounding the proposed building site.
 - (d) "Driveway" means a way of access used for only one dwelling or manufactured dwelling.
 - (e) "Fire-resistive vegetation" refers to vegetation that will not produce flame lengths in excess of 12 inches.
 - (f) "Ladder fuels" means vegetation that serves as a link between grasses and tree tops. It means branches, leaves, needles, and other combustible vegetation that may allow a wildfire to spread from lower growing vegetation to higher growing vegetation.
 - (g) "Public road" shall be as defined in LC 15.010.
 - (h) "Residential accessory structure" includes structures incidental, appropriate and subordinate to a residence including garages, shops, guest houses, etc.
 - (i) "Residential units " includes multiple-family dwelling, duplex, family day care facility, residential care facility, lodge, hotel, motel, rental cabin or condominium.
 - (j) "Road" means a way of access used for more than one dwelling, manufactured dwelling, or residential accessory structure.
 - (k) "Secondary fuel break" is a fuel break immediately adjacent to primary fuel breaks, for the distance necessary to comply with the total fuel break distance specified.
 - (l) "Vertical construction" includes any aspect of construction except the following actions performed in conformance with the approved construction plans:
 - (i) Excavation of the development site,
 - (ii) Construction of the access road or driveway,
 - (iii) Setting of construction forms prior to the pouring of footings, stem walls or a monolithic slab.
 - (m) "Wildland-Urban Interface" is the zone where structures and other human development meets or intermingles with undeveloped wildland fuels or other natural features. In Lane County these areas are identified on the Community Wildfire Protection Plan Wildland Urban Interface Map.
- (4) Process and General Standards
- (a) Prior to review of the fire protection site plan, the applicant shall submit the application form required by the Building Official and pay the fee as established by order of the Board of County Commissioners.
 - (b) The Building Official shall determine the severity of a wildfire hazard as determined by the risk classification rating of the proposed development site. The classification rating of the proposed development site shall be:

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- (i) Determined by the classification process set forth in ORS 477.031 to 477.052 and 477.057 if completed for the proposed development site; or in the absence of this classification,
- (ii) Determined by the risk assessment rating as listed in the Lane County Community Wildfire Protection Plan (CWPP). The risk assessment rating for all unincorporated areas are depicted on a series of five assessment area maps entitled "CWPP Assessment Areas".

The WUI Area Fire Hazard Maps shall be adopted by the Board of County Commissioners. The WUI Area Fire Hazard Maps shall indicate the general location of areas of low, moderate and high susceptibility to the threat of wildfire. These maps shall be based on the best available risk assessment information and may be amended by the Planning Director after consultation with the applicable Fire Protection District or Oregon Department of Forestry based upon the receipt of corrected, updated or refined data or upon the revision of studies upon which the maps were initially based.

- (c) Risk Classification Rating Certification. The risk classification predicting the severity of a wildfire hazard may be determined by the Fire Chief or his/her appointed representative of the applicable Fire Protection District, or the Fire Chief or appointed representative of another Fire Protection District or the Oregon Department of Forestry pursuant to a mutual aid agreement. Risk classification for a proposed development site located outside a fire protection district may be determined by a representative of the Oregon Department of Forestry. Prior to the submittal of a building permit application, the property owner shall secure written certification from the appropriate fire protection professional that an inspection of the development site has occurred. The certification shall include the following:
 - (i) A signed and dated certification checklist from the appropriate fire protection professional indicating the hazard rating for the proposed development site including the dimensions of the required defensible space based upon the determined hazard rating, topography, natural vegetation, wildfire weather hazard factor (aspect) and other important factors; and
 - (ii) A site development plan that conforms to the standards set forth in LC16.266 (4)(d)(i)-(ix) that has been signed and dated by the appropriate fire protection professional. The plot plan shall clearly identify the specific development site that has been reviewed under certification checklist.
- (d) Site Development Plan. Prior to issuance of a building permit for the construction of a new dwelling, manufactured dwelling, replacement dwelling, accessory structure, or addition to a dwelling or other structure within the Wildland-Urban Interface (WUI), the property owner shall secure approval from the Building Official for a Site Development Plan clearly showing the following:
 - (i) Location of the access point of the private road or driveway with the right-of-way of a public road;
 - (ii) Route of the proposed road or driveway from the public road to the development site addressing the standards of LC 16.266(7), and depicting all sections of the road

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- or driveway with grades over 12 percent. Any sections with grades in excess of 12 percent shall require prior approval of a modification pursuant to LC 16.266(8)(a);
- (iii) Location of the proposed dwelling or structures with dimensions to at least two property lines and all property lines within 100 feet of the perimeter of the proposed structures;
 - (iv) Location of the proposed defensible space and secondary fuel break around the proposed structures in compliance with the standards of LC 16.266(6);
 - (v) Location of any existing structures and interior roads or driveways on the subject property;
 - (vi) Location of the proposed subsurface sewage sanitation system and proposed well site or other domestic water source;
 - (vii) Location of trees and vegetation within the defensible space and secondary fuel break that will remain after the defensible space and fuel break have been established;
 - (viii) Location of any Class I Streams designated for riparian protection by the Rural Comprehensive Plan or delineated wetlands designated for protection on National Wetland Inventory (NWI) maps;
 - (ix) Photographs of the location of the proposed dwelling or structure and the vegetated area surrounding proposed defensible space and secondary fuel breaks.
- (e) Prior to any vertical construction pursuant to an issued building permit within the Wildland-Urban Interface, the property owner shall secure approval from the Building Official that:
- (i) The removal of slash, snags, ground fuels, ladder fuels, dead trees and thinning of live trees within the defensible space are in compliance with LC 16.266(6)(a); and
 - (ii) The route and grade of the access road and/or driveway complies with LC 16.266(7).
- (f) Prior to approval for final inspection of the dwelling or structure and certificate of occupancy by the Building Official, the property owner shall:
- (i) Secure approval for completion of the secondary fuel break in compliance with LC 16.266(6)(b) standards; and
 - (ii) Secure final approval for construction of the road and/or driveway in compliance with LC 16.266(7) standards.
- (g) All defensible space, secondary fuel break, road and driveway, and water system standards of LC 16.266 shall be maintained in perpetuity on an annual basis prior to fire seasons for as long as the structure or use remains on the property.
- (h) Failure to maintain the fire safety standards of LC 16.266 shall be subject to enforcement by the Lane County Building Official and/or Compliance Officer.
- (i) Fire Protection District. The proposed development site shall be located upon a lot or parcel within a fire protection district or shall be provided with residential fire

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protection as evidenced by a contract with a fire protection district (FPD) recorded in Lane County Deeds and Records.

- (i) If the proposed development site is not within a FPD, the applicant shall provide evidence that the applicant has submitted a written request for a services contract with the nearest FPD or to be annexed into the FPD boundaries.
 - (ii) If the FPD determines that inclusion within a FPD or contracting for residential fire protection is impracticable, the Building Official shall require that the property owner implement and maintain a Fire Protection Plan as an alternative means for protecting the dwelling, manufactured dwelling, or residential unit from fire hazards, consistent with Lane County.
- (j) Fire Protection Plan. When the Building Official determines a Fire Protection Plan is required, that Plan shall include the following:
- (i) Implementation and maintenance in perpetuity of a 30-foot wide defensible space surrounding the perimeter of the dwelling or manufactured dwelling in compliance with the standards in LC 16.266(6)(a), and an additional 50-foot wide secondary fuel break in compliance with LC 16.266(6)(b).
 - (ii) An external fire protection system to mitigate the threat to the dwelling or accessory structures by a wildfire or the threat to the forest resource base from a fire originating on the parcel, in compliance with the following standards:
 - (A) Provide a minimum of two all-weather, one-inch valve, fire hydrants and two fire hose reels with sufficient length of fire suppression hose at each hydrant to reach around fifty percent of the exterior of the dwelling and residential accessory structures. The hose reels shall be installed along the perimeter of the defensible space. The minimum fire hose interior diameter shall be one-inch;
 - (B) Provide a fire nozzle with each fire hose with multiple settings to allow stream, spray and fog applications of water on the exterior of the structures and landscape;
 - (C) Provide and annually maintain a water supply and pumping system connected to the fire hydrants in compliance with the following minimum requirements: a swimming pool, pond, lake or similar body of water that at all times contains a minimum of 4,000 gallons of water; or a stream that has a continuous year-round flow of at least one cubic foot per second; or a 1,500-gallon storage tank, e.g., concrete septic tank connected to an operating groundwater well for refilling; or a high-yield groundwater well with a minimum yield of 30 gallons per minute for one hour; and a pump system capable of maintaining 80 psi line pressure to the two fire hydrants. If the water supply and pump system are connected to the domestic water supply, the property owner shall install an anti-backflow device approved by the Building Official to avoid contamination of the domestic water system.
 - (D) The property owner shall provide verification from the Water Resources Department that any permits or registrations required for water diversions

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have been obtained or that such permits or registrations are not required under state law for the use; and

- (E) Road or driveway access to within 10 feet of the water supply shall be provided for pumping units. The road or driveway access shall accommodate the turnaround of fire fighting equipment during the fire season.
 - (F) Permanent signs shall be posted along the access route to indicate the location of the emergency water source.
- (5) Setbacks. New dwellings or manufactured dwellings, residential units and accessory structures shall be at least 30 feet away from any ravine, ridge or slope greater than 40 percent.
- (6) Structural Defensible Space and Secondary Fuel Breaks.
- (a) Structural Defensible Space.

Property owners are required to create and maintain a structural defensible space which complies with LC 16.266(6)(a) for all new dwellings, manufactured dwellings, residential units, accessory structures, and additions of 50% or more of floor area to dwellings and accessory structures on land that is owned or controlled by the property owner within the Wildland-Urban Interface. The required defensible space for a new structure identified in LC 16.266(6)(a) shall be at least 30 feet, or to the property line, whichever is the shortest distance. The distance shall be measured horizontally along the slope and from the furthest extension of the structure, including attached carports, decks, or eaves. Alterations of existing vegetation and activities within the defensible space shall include:

- (i) Remove any portion of a tree which extends to within 10 feet of the outlet of a structure's chimney or a stove pipe.
- (ii) Maintain the portion of any tree which overhangs a dwelling, residential unit or residential accessory structure substantially free of dead plant material;
- (iii) Accumulated leaves, needles, and other dead vegetation shall be removed from gutters.
- (iv) Roofs. New dwellings and habitable structures shall be regulated by the State of Oregon Structural Specialty Code or the State of Oregon One and Two Family Specialty Code. Roofing for new dwellings, manufactured dwellings and residential units shall be asphalt shingles in accordance with Section 903, slate shingles in accordance with Section 904, metal roofing in accordance with Section 905, tile, clay or concrete shingles in accordance with Section 907, and other approved roofing which is deemed to be equivalent to Class C rated roof covering. Wood shingles and shake roofs are not permitted. When 50% or more of the roof covering of any one or two family dwelling, manufactured dwelling, or residential unit is repaired or replaced in one year, the roof covering shall be made to comply with this section.
- (v) Chimneys. Chimneys serving fireplaces, barbecues, incinerators or decorative heating appliances in which solid or liquid fuel is used, shall be provided with a spark arrester. Spark arresters shall be constructed of woven or welded wire

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screening of 12 USA standard gauge wire (0.1046 inch)(2.66 mm) having openings not exceeding ½ inch (12.7 mm).

- (vi) Maintain the area under decks substantially free of firewood, stored flammable building material, leaves, needles, and other similar flammable material; and
- (vii) During times of the year when wildfire may be a threat, locate firewood, flammable building material, and other similar flammable material:
 - (A) At least 20 feet away from a structure; or
 - (B) In a fully enclosed space.
- (b) Structural defensible space characteristics.
 - (i) The purpose of a structural defensible space is to:
 - (A) Create an area in which fire suppression operations may more safely occur; and
 - (B) Slow the rate of spread and the intensity of an advancing wildfire; and
 - (ii) A structural defensible space shall be a natural or a manmade area where material capable of allowing a wildfire to spread:
 - (A) Does not exist; or
 - (B) Has been cleared, modified, or treated in such a way that the rate of spread and the intensity of an advancing wildfire will be significantly reduced.
 - (iii) A structural defensible space shall be comprised of one or more of the following:
 - (A) An area of fire-resistive ground cover and vegetation. Examples include gardens, flower beds, clover, green grass, ivy, mulches, rock, succulent ground cover, or wildflowers. Suggestions for specific types of fire-resistive shrubby vegetation that may reduce the risk from wildfire can be found in the OSU Extension Service publication *Fire-Resistant Plants for Oregon Home Landscapes*, which is available from Oregon Department of Forestry and Lane County Land Management Division.
 - (B) An area of single specimens or isolated groupings of ornamental shrubbery, native trees, or other plants, provided they are:
 - aa. Maintained substantially free of dead plant material;
 - bb. Maintained free of ladder fuel. The ladder fuel trim zone is three times the shrub height. To remove ladder fuels, either remove overhanging tree limbs within the trim zone or remove/reduce the height of the shrub;
 - cc. Arranged and maintained in such a way that minimizes the possibility a wildfire can spread to adjacent vegetation; and
 - dd. Maturing trees may be retained and planting of new trees is permitted within the defensible space provided the horizontal distance between

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crowns of adjacent non-hardwood trees such as cedars, firs, and pine, and overhead electrical facilities or unmodified fuel is not less than 10 feet. "Tree crowns" include the primary and secondary branches growing out from the main stem, together with twigs and foliage. "Distance between crowns" shall be the measured from the extension of the foliage of one tree to the foliage of another tree. Clusters of five or fewer maturing trees can be considered as one crown if they are tightly clustered (entwined) and a 10-foot horizontal distance around the periphery of the combined "cluster crown" and other nearby non-hardwood trees is maintained.

ee. In compliance with the intent of subsections LC 16.266(6)(b)(i) and (ii).

(C) An area of dry grass which is maintained to an average height of less than four inches.

(D) An area of cut grass, leaves, needles, twigs, and other similar flammable materials provided such materials do not create a continuous fuel bed and are in compliance with the intent of LC 16.266(6)(b)(i) and (ii).

(c) Secondary Fuel Break.

Property owners in moderate and high risk classification areas are required to create and maintain a secondary fuel break which complies with LC 16.266(6)(c), for all new dwellings, manufactured dwellings, residential units, accessory structures, and additions of 50% or more of floor area to dwellings and accessory structures on land that is owned or controlled by the property owner within the Wildland-Urban Interface. The required secondary fuel break for a structure identified in LC 16.266(6)(c) above shall be as specified in *Table 2* below, or to the property line, whichever is the shortest distance. The distance shall be measured horizontally along the slope and from the furthest extension of the structure, including attached carports, decks, or eaves.

Table 2

Defensible Space and Secondary Fuel Break		
Fire Risk Classification Rating	Structural Defensible Space	Secondary Fuel Break
Low	30 feet	---
Moderate	30 feet	30 feet
High	30 feet	50 feet

The applicable secondary fuel break distance shall be determined by fire risk classification using either method set forth in 16.266(4)(b) or 16.266(4)(c).

A secondary fuel break shall be comprised of single specimens or isolated grouping of ornamental shrubbery, native trees, or other plants, provided they are:

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- (i) Maintained substantially free of dead plant material;
 - (ii) Maintained free of ladder fuel. The ladder fuel trim zone is three times the shrub height. To remove ladder fuels, either remove tree limbs within the trim zone or remove/reduce the height of the shrub;
 - (iii) Arranged and maintained in such a way that minimizes the possibility a wildfire can spread to adjacent vegetation.
- (d) Road or Driveway Defensible Space.

Property owners are required to create and maintain a defensible space adjacent to roads or driveways providing access to new dwellings, manufactured dwellings, residential units, accessory structures, and additions of 50% or more of floor area to dwellings and accessory structures on land that is owned or controlled by the property owner within the Wildland-Urban Interface.

- (i) Road defensible space (road providing access to two or more residential uses).

The required road defensible space shall be at least 10 feet from the centerline of a driveway (20 feet total) or to the property line, whichever is the shortest distance. The distance shall be measured from the center line of the road. Including the driving surface, a fuel break shall result in an open area which is not less than 13 feet 6 inches in height and 20 feet in width with two feet of cleared area on both shoulders parallel to the 16-foot gravel, travel surface or to the property line, whichever is the shortest distance.

- (ii) Driveway defensible space (driveway providing access to one new residential use).

The required driveway defensible space shall be at least 8 feet from the centerline of a driveway (16 feet total) or to the property line, whichever is the shortest distance. The distance shall be measured from the center line of the driveway. Including the driving surface, a fuel break shall result in an open area which is not less than 13 feet 6 inches in height and 16 feet in width with two feet of cleared area on both shoulders parallel to the 12-foot gravel, travel surface or to the property line, whichever is the shortest distance.

- (e) Water Storage Defensible Space.

Water storage and structural pumping facilities shall be provided with a defensible space which complies with LC 16.266(6)(f) of not less than 30 feet clear of such facilities. Persons owning, controlling, operating or maintaining water storage and pumping systems requiring this defensible space are responsible for maintaining the defensible space on the property owned, leased or controlled by said person. Portions of trees that extend within 10 feet of combustible portions of water storage and pumping facilities shall be removed.

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(f) Exceptions to the Defensible Space and Secondary Fuel Break Standards.

(i) Class I Stream Riparian Regulations.

(A) Only the minimal removal or alteration of vegetation within the Riparian Setback Area is allowed to establish a Structural Defensible Space. The removal shall not exceed the limitations of LC 16.253(2)(a) and (b).

(B) Secondary Fuel Breaks are not required in the Riparian Setback Area.

(ii) Wetlands. No vegetation removal or disturbance of topography shall occur within a jurisdictional wetlands site in the National Wetland Inventory for purposes of establishing a Structural Defensible Space or Secondary Fuel Break, without the prior approval of the Oregon Department of State Lands.

(iii) Coastal Resource Management Plan. For development within a zone listed in *Table 3*, below, the more restrictive protection standards for alteration or removal of vegetation or disturbance of topography shall prevail over the fire safety standards of LC 16.266.

(A) Structural Defensible Space. Vegetation removal and alteration to establish a Defensible Space shall not exceed the vegetation removal/alteration limits of the Site and Development Requirements of the zones listed in *Table 3*, below.

(B) Secondary Fuel Breaks. Secondary Fuel Breaks are not required in the Site and Development Requirements setback areas of the zones listed in *Table 3*, below.

Table 3

Zone Name	Chapter
Natural Estuary Zone (NE-RCP)	LC 16.234
Conservation Estuary Zone (CE-RCP)	LC 16.235
Development Estuary Zone (DE-RCP)	LC 16.236
Significant Natural Shorelands Combining Zone (/SN-RCP)	LC 16.237
Prime Wildlife Shorelands Combining Zone (/PW-RCP)	LC 16.238
Residential Development Shorelands Combining Zone (/RD-RCP)	LC 16.240
Shorelands Mixed Development Combining Zone (/MD-RCP)	LC 16.241

(iv) Willamette Greenway.

(A) Only the minimal removal or alteration of vegetation within the Willamette Greenway is allowed to establish a Structural Defensible Space.

(B) Secondary Fuel Breaks are not required in the Willamette Greenway.

(7) Road and Driveway Standards

(a) Private driveways, roads or bridges accessing only small woodlot or commercial forest practices or farm uses are not subject to compliance with these fire safety design standards for roads and driveways.

(b) The route of access for fire fighting equipment, from the public road to a new dwelling or residential unit shall comply with the standards specified in LC 16.266(7).

(c) Roads shall have unobstructed widths of at least 20 feet including:

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- (i) Travel surfaces with widths of at least 16 feet constructed with gravel to a depth sufficient to provide access for fire fighting vehicles with a minimum depth of at least six-inches or with paving having a crushed base equivalent to six inches of gravel;
 - (ii) An unobstructed area two feet in width at right angles with each side of the constructed surface;
 - (iii) Inside curve radii of at least 50 feet; and
 - (iv) A vertical clearance of at least 13 feet 6 inches.
 - (v) Access points within public road right-of-ways shall have approach widths, aprons, and culverts in compliance with Lane County Public Works facility permit requirements.
- (d) Driveways shall have unobstructed widths of at least 16 feet including:
- (i) Travel surfaces with 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;
 - (ii) An unobstructed area two feet in width at right angles with each side of the constructed surface;
 - (iii) Inside curve radii of at least 50 feet; and
 - (iv) A vertical clearance of at least 13 feet 6 inches.
- (e) Dead-end driveways and roads not maintained by Lane County shall meet these standards for turnarounds. Any dead-end road 150 feet or longer shall include a turnaround at the terminus. Long driveways or roads shall have additional turnarounds spaced at intervals of not less than 500 feet. Turnarounds shall comply with these design and construction standards:
- (i) 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/driveway as near as possible at a 90 degree angle with a 30-foot radius and extend from the road/driveway at that angle for a distance of at least 36 feet in both directions (72 feet total across the "T"). Other alternatives are available with prior approval of the design by the Building Official after consultation with the applicable Fire Protection District. They shall be constructed to the standards for driveways in LC 16.266(7)(d) above.
 - (ii) Cul-de-sac Turnarounds.
 - (A) Cul-de-sacs shall have a turn-around width with a radius of at least 45 feet and an improved surface with a radius of at least 36 feet. They shall be constructed to the standards for driveways in LC 16.266(7)(d) above; and
 - (B) No cul-de-sac or hammerhead turnaround 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.

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- (f) 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 Building Official 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 an engineer licensed in the State of Oregon that the structure will comply with the minimum gross weight standard of 50,000 lbs. Vehicle load limits shall be posted at both entrances to a bridge.
 - (g) Road and driveway grades shall not exceed 12 percent except for short distances when topographic conditions make lesser grades impractical. In such instances, grades up to 16 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 12 percent are adequate for the fire fighting equipment of the agency providing fire protection to access the use or structure(s) and water supply.
 - (h) Roads shall be named and addressed in compliance with LC 15.305 through 15.335.
 - (i) Driveways in excess of 500 feet shall provide for a 50-foot long and eight-foot wide passage spaces (turn outs) with six inches in depth of gravel and at maximum intervals of 500 feet. Shorter or longer intervals between turnouts may be authorized by the Building Official after consultation with the applicable Fire Protection District or Oregon Department of Forestry where the Building Official inspects the road and determines that topography, vegetation, corners or turns obstruct visibility.
- (8) Modifications and Alternatives.
- (a) Wherever there are practical difficulties involved in carrying out the provisions of LC 16.266(6) or (7), the Building Official, after consultation with and approval of the applicable Fire Protection District and/or Oregon Department of Forestry, shall have the authority to grant modifications for individual cases, provided the Building Official shall first find that special siting circumstances make the strict letter of this code impractical and the modification granted is the minimum deviation from the required standard as is practicable under the circumstances. The circumstances and action granting the modification shall be entered in the building permit files of Lane County Land Management Division.
 - (b) The determination that a development site is classified as Low, Medium, or High fire hazard area may be modified by the Planning Director or by the appropriate Fire Protection District or the Oregon Department of Forestry as outlined in 16.266(4)(c). The modification shall be based on objective evidence that supports a finding that the development site is within a different fire hazard area than shown on the adopted Fire Hazard Map.

Determining defensible space and secondary fuel break and submittal of building permit.

Property owner contemplates constructing a dwelling or accessory structure on land

Property owner contacts LMD

1. Discusses building permit process and reviews land use issues with planner by telephone; and
 2. Receives information packet by mail for all applicable combining zone requirements including wetlands, Willamette Greenway, floodplain, coastal overlays, riparian and WUI fire safety standards (LC 16.266).

or

1. Discusses building permit process and reviews land use issues with planner on duty at LMD service counter; and
 2. Receives information packet for all applicable combining zoning requirements including wetlands, Willamette Greenway, floodplain, coastal overlays, riparian and WUI fire safety standards (LC 16.266).

Option #1: LC 16.266(6)(a)(ii)
 Property owner contacts local fire protection district and makes an appointment with the FPD chief to conduct a site visit with the owner/contractor to review the proposed site and access route;

or

Option #2: LC 16.266(6)(a)(i)
 Property owner receives the CWPP risk assessment rating from LMD-GIS for either low, medium or high fire hazard and elects to implement the standard without additional review.

LC 16.266(4)(b)(i)-(x)
 Property owner or contractor prepares fire protection site plan (plot plan) with FPD determination of defensible space or CWPP fire hazard rating.

Property owner contacts LMD to schedule PASO meeting to review building permit including plot plan (fire protection site plan).

LC 16.266(6), (7) and (8)
 LMD issues building permit with requirement to implement the fire protection standards.

**Inspection process for defensible space and secondary fuel break,
and access driveway or road construction.**

Property owner receives approved building permit
including fire protection site plan.

LC 16.266(3)(j)

Property owner and contractor construct access driveway and
apply base rock to the route in compliance with **LC 16.266(8)**
driveway standards and prepares defensible space
in compliance with standards of **LC 16.266(6)(a)**.

Contractor excavates development site and sets foundation
forms in preparation of building inspector's initial inspection
prior to pouring monolithic slabs, footings or stem walls.

LC 16.266(4)(c)

Property owner/contractor calls LMD and schedules initial
building inspection of construction forms in conjunction with
defensible space and preliminary road/driveway inspections.

LMD building inspector conducts initial inspection of the
construction forms for compliance with Oregon Specialty Code
and inspection/approval of defensible space and access route
(base rock, grade, width and depth, turnouts and turn-arounds).
Approval of forms is contingent on approval of fire protection
standards of **LC 16.266(6)(a)** and **LC 16.266(8)**.

Once property owner/contractor has secured approval for the
defensible space and preliminary approval for the road and/or
driveway, the construction of the dwelling or accessory structure
would move forward through the normal building inspection
process until the project is ready for final inspections and
a certification for occupancy.

Prior to scheduling the final inspection for the completion of
the dwelling or accessory structure, the property owner and/or
contractor are required to (1) implement the 100-foot secondary
fuel break around the defensible space [**LC 16.266(6)(b)**], and
complete the final aspects of the driveway or road construction
in compliance with **LC 16.266(8)**.

LC 16.266(4)(d)

Property owner or contractor calls LMD building program and
schedules inspections of the secondary fuel break, access route,
and final inspection of the structure per the building permit.

LMD building inspector conducts final inspections.