IN THE BOARD OF COMMISSIONERS OF LANE COUNTY, OREGON

ORDINANCE NO. 2-98

PASSED

IN THE MATTER OF AMENDING CHAPTERS 10 AND 16 OF LANE CODE TO REVISE PROVISIONS WITH REGARD TO THE FLOODPLAIN COMBINING DISTRICT (/FP) AND THE FLOODPLAIN COMBINING ZONE (/FP-RCP) (LC 10.271 AND 16.244) AND DECLARING AN EMERGENCY

The Board of County Commissioners of Lane County ordains as follows:

Chapters 10 and 16 of Lane Code are hereby amended by removing and substituting the following pages:

REMOVE THESE PAGES	INSERT THESE PAGES
10.171-05 - 10.271-15 to 10.271-45(2) - 10.271-45(2), i.e. 10-292 to 10-301 (a total of 10 pages)	10.171-05 - 10.271-15 to 10.271-45(2) - 10.271-45(2), i.e. 10-292 to 10-301 (a total of 10 pages)
16.244(1) - 16.244(3) 16.244(8) - 16.244(9), i.e. 16-263 to 16-274 (a total of 12 pages)	16.244(1) - 16.244(3) 16.244(8) - 16.244(9), i.e. 16-263 to 16-274 (a total of 12 pages)

Said pages are attached hereto and incorporated herein by reference. The purpose of these substitutions is to revise provisions with regard to the Floodplain Combining District (/FP) and the Floodplain Combining Zone (/FP-RCP) (LC 10.271 and 16.244).

While not part of this Ordinance, findings attached as Exhibit "A" and incorporated herein by this reference are adopted in support of this decision.

An emergency is hereby declared to exist and this Ordinance, being enacted by the Board in the exercise of its police power for the purpose of meeting such emergency and for the immediate preservation of the public peace, health and safety, shall take effect immediately upon adoption.

Enacted this 22 day of April, 1998.

Chair, Lane County Board of Commissioners

Recording Secretary for this Meeting of the Board

APPROVED AS TO FORM
Date: 3-24-98 lane county
OFFICE OF LEGAL COUNSEL

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FLOODPLAIN COMBINING DISTRICT (/FP)

-05 Purpose. It is the purpose of this section to promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas. The provisions of this section are designed to:

(1) Protect human life and health.

(2) Minimize expenditure of public money and costly flood control projects.

(3) Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public.

(4) Minimize prolonged business interruptions.

(5) Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, and streets and bridges located in area of special flood hazards.

(6) Help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas.

(7) Ensure that potential buyers are notified that property is in an area of special flood hazard.

(8) Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

-10 Methods of Reducing Flood Losses. In order to accomplish its purpose, this section includes methods and provisions for:

(1) Restricting or prohibiting uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities.

(2) Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction.

(3) Controlling the alteration of natural floodplains, stream channels and natural protective barriers, which help accommodate or channel flood waters.

(4) Controlling filling, grading, dredging and other development, which may increase flood damage.

(5) Preventing or regulating the construction of flood barriers, which will unnaturally divert flood waters or which may increase flood hazards in other areas.

-15 Lands to Which This Section Applies. This section shall apply to all areas of flood hazard within Lane County, and overlay the regulations of the underlying zone. Areas of flood hazard for Lane County are identified by the Federal Insurance Administration in a scientific and engineering report entitled "THE FLOOD INSURANCE STUDY FOR LANE COUNTY, OREGON, UNINCORPORATED AREAS," with accompanying Flood Insurance Rate Maps (FIRM) and Floodway Maps. Areas of flood hazard shall also include any land areas designated by the Director as susceptible to inundation of water from any source where the above referenced maps have not identified any special flood areas. Flood hazard areas shall be adopted by Board Order, made a part of Lane Manual (LM 11.020) and filed in the office of the Department. Such studies shall form the basis for the administration and implementation of this section.

-20 Warning and Disclaimer of Liability. The degree of flood protection required by this section is considered reasonable for regulatory purposes. Larger floods can and will occur on rare occasions. Flood heights may be increased by human-made or natural causes. This section does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This section shall not create liability on the part of Lane County, any officer or employee thereof, for any flood damages that result from reliance on this section or any administrative decision lawfully made hereunder.

-25 Development Subject to Director Approval. Approval shall be obtained before construction or development begins within any area of special flood hazard. Approval shall be required for all structures, manufactured homes, recreational vehicles as provided for by this section, and "development" as defined in LC 10.020. Application for approval shall be filed with the Department pursuant to LC 14.050.

-30 Designation of Administrator. The Director shall:

(1) Review all development applications to determine that the permit requirements of this section have been satisfied.

(2) Review all development application to determine that all necessary permits have been obtained from those federal, state or local governmental agencies from which prior approval is required.

(3) Review all development to determine if the proposed development is located in the floodway; and, if in the floodway, assure that the encroachment provisions of this section are satisfied.

(4) When base flood elevation data has not been provided in the Flood Insurance Study for Lane County, Oregon, unincorporated areas, the Director shall obtain, review and reasonably utilize any base flood elevation and floodway data available from a federal, state or other source in order to administer this section.

(5) Where base flood elevation data is provided through the Flood Insurance Study or required by this section, obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement.

(6) For all new or substantially improved flood-proofed structures:

(a) Verify and record the actual elevation (mean sea level); and

(b) Maintain the flood-proofing certifications required by LC 10.271-35(2)(b)(iii).

(7) Maintain for public inspection all records pertaining to the provisions of this section.

(8) Notify adjacent communities and the Division of State Lands, prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration upon request.

(9) Require that a program of periodic inspection and maintenance be provided with the altered or relocated portion of said watercourse so that the flood carrying capacity of the watercourse is not diminished.

(10) Make interpretation, where needed, as to exact location of the boundaries of areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and the actual field conditions). A person contesting the location of the boundary may appeal the interpretation to the hearings official as provided in LC 14.500.

-35 Provisions for Flood Hazard Reduction. In all areas of flood hazard, the following standards are required:

(1) Unnumbered "A" Zones, where base flood elevation cannot be supplied.

(a) Anchoring.

(i) All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.

(ii) All manufactured homes must likewise be anchored to prevent flotation, collapse or lateral movement, in accordance with the State of Oregon Manufactured Dwelling Standard .

(b) Construction Materials and Methods.

(i) All new construction and substantial improvements shall be constructed with approved materials and utility equipment resistant to flood damage.

(ii) All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.

(iii) Electrical, heating, ventilation, plumbing and air-conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating with the components during conditions of flooding.

(c) Utilities.

(i) All new or replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.

(ii) New and replacement sanitary systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters; and

(iii) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

(d) Subdivision Proposals.

(i) All subdivision proposals shall be consistent with the need to minimize flood damage;

(ii) All subdivision proposals shall have public utilities and facilities such as gas, electrical and water systems located and constructed to minimize flood damage;

(iii) All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; and

(iv) Where base flood elevation data has not been provided or is not available from another authoritative source, it shall be generated for subdivision proposal and other proposed developments which contain at least 50 lots or five acres, whichever is less.

(e) Review of Building Permits. Where elevation data is not available either through the Flood Insurance Study or from another authoritative source, applications for building and manufactured home placement permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness shall include the use of historical data, high water marks, photographs of past flooding, etc., where available.

(f) Elevation.

(i) Residential Construction: new construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated two feet above grade.

(ii) Nonresidential Construction: new construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated two feet above grade; or, together with attendant utility and sanitary facilities, shall be flood-proofed to a level two feet above grade, so the structure is watertight with walls substantially impermeable to the passage of water.

(iii) Manufactured Home Placement: all manufactured homes not in an existing manufactured home park shall have the lowest floor elevated two feet above grade.

(iv) All manufactured homes within an existing manufactured home park shall be elevated such that the underside of the floor of the manufactured home is three feet above the finish grade.

(g) Enclosed Areas. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect, or must meet or exceed the following minimum criteria:

(i) A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade.

(ii) Openings shall be located to allow unrestricted cross-flow of floodwaters through the enclosed area from one side to the other.

(iii) Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

(h) Roads. Adequate provisions shall be made for accessibility during a 100-year flood, so as to ensure ingress and egress for ordinary and emergency vehicles and services during potential future flooding.

(2) Numbered Zones A1-30, AH, AE, AO. In all areas of special flood hazards where base flood elevation data has been provided as set forth in LC 10.271-15 or 10.271-30(4) the following provisions are required:

(a) Residential Construction.

(i) New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to one foot above base flood elevation.

(ii) Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces in exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:

(aa) A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade.

(bb) Openings shall be located to allow unrestricted cross-flow of floodwaters through the enclosed area from one side to the other.

(cc) Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

(b) Nonresidential Construction. New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated to a level at least one foot above the base flood elevation; or, together with attendant utility and sanitary facilities shall:

(i) Be floodproofed to one foot above the base flood level, so the structure is watertight with walls substantially impermeable to the passage of water;

(ii) Have structural components capable of resisting hydrostatic and hydrodynamics loads and effects of buoyancy;

(iii) Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice based on their development and/or review of the structural design, specifications and plans. Such certification shall be provided to the official as set forth in LC 10.271-30(6)(b). Nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the lowest floor as described in LC 10.271-35(2)(a).

(iv) Applicants floodproofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the floodproofed level (e.g., a building constructed to the base flood level will be rated as one foot below that level).

(c) Manufactured Homes.

(i) All manufactured homes that are placed or substantially improved within Zones A1-30, AH and AE (i) on sites outside of a manufactured home park , (ii) on sites in a new manufactured home park , (iii) on sites in an expansion to an existing manufactured home park , or (iv) on sites within an existing manufactured home park and upon which manufactured homes have incurred substantial damage as the result of a flood, shall be elevated on a permanent foundation such that the underside of the floor of the manufactured home is elevated to a height of one foot above the base flood elevation.

(ii) All manufactured homes to be placed or substantially improved on sites in an existing manufactured home park within Zones A1-30, AH or AE that are not subject to the provisions of paragraph 10.271-35(2)(c)(i) above shall be elevated so that either (i) the underside of the floor of the manufactured home is one foot above the base flood level , or (ii) the manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade.

(iii) Recreational vehicles placed on sites within Zones A1-30, AH or AE shall (i) be on the site for fewer than 180 consecutive days and be fully licensed and ready for highway use, or (ii) shall satisfy the permit requirements of LC 10.271-25 above. "Ready for highway use" means that the recreational vehicle is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.

(d) Foundations.

(i) Foundations for all new construction, substantial improvements, and manufactured homes that are not in an existing manufactured home park or existing manufactured home subdivision subject to 18 inches or more of flood water during a 100-year flood or located within a designated floodway shall be certified by an Oregon registered professional engineer or architect to meet the following minimum requirements:

(aa) Concrete footings sized for 100 psf soil pressure unless data to substantiate the use of higher values are submitted.

(bb) Footings extending below the frost line.

(cc) Reinforced concrete, reinforced masonry, or other suitably designed supporting systems to resist all vertical and lateral loads which may reasonably occur independently or combined.

(ii) All manufactured homes subject to less than 18 inches of flood water during a 100-year flood shall be supported in accordance with the State of Oregon Manufactured Dwelling Standard.

(iii) All manufactured homes located in an existing manufactured home park or existing manufactured home subdivision shall be supported in accordance with the State of Oregon Manufactured Dwelling Standard.

(e) Anchoring.

(i) All new construction and substantial improvement subject to less than 18 inches of flood water during a 100-year flood shall be anchored to prevent flotation or lateral movement.

(ii) All new construction and substantial improvement subject to less than 18 inches of flood water during a 100-year flood shall be anchored in accordance with the State of Oregon Manufactured Dwelling Standard.

(iii) All new construction, substantial improvements and manufactured homes not in an existing manufactured home park or existing manufactured home subdivision subject to 18 inches or more of flood water during a 100-year flood or located within a designated floodway shall be anchored to prevent flotation or lateral movement which may reasonably occur independently or combined. Designs for meeting this requirement shall be certified by an Oregon registered engineer or architect.

(iv) All manufactured homes in existing manufactured home parks and existing manufactured home subdivisions shall be anchored in accordance with the State of Oregon Manufactured Dwelling Standard.

(f) Construction Materials and Methods.

(i) All new construction and substantial improvements shall be constructed with approved materials and utility equipment resistant to flood damage.

(ii) All new construction and substantial improvements shall be constructed using approved methods and practices that minimize flood damage.

(iii) Electrical, heating, ventilation, plumbing and air-conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

(g) Utilities.

(i) All new replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system. Public water systems which utilize wells for a source(s) shall be constructed such that the top well elevation is at least one foot above the 100-year flood elevation.

(ii) New and replacement sanitary systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharged from the systems into flood waters.

(h) Roads.

(i) Adequate provisions shall be made for accessibility during a 100-year flood, so as to ensure ingress and egress for ordinary and emergency vehicles and services during potential future flooding.

(ii) No road surface of any new street, road or access road shall be at an elevation less than one foot below the base flood height.

(i) Subdivision and Partitioning Proposals.

(i) All subdivision and partitioning proposals shall be consistent with the need to minimize flood damage.

(ii) All subdivision proposals shall have adequate drainage to reduce exposure to flood damage, including returning water.

(iii) 100-year flood elevation data shall be provided and shown on final partition maps and subdivision plats. Applicant must show the boundaries of the 100-year flood and floodway on the final subdivision plat.

(iv) A permanent monument shall be established and maintained on land partitioned or subdivided showing the elevation in feet above mean sea level. The location of such monument shall be shown on the final partition map or subdivision plat.

(v) All subdivision proposals shall have public utilities and facilities such as gas, electrical and water systems located and constructed to minimize flood damage.

(3) Floodways. Located within areas of special flood hazard established in LC 10.271-15 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles and erosion potential, the following provisions apply:

(a) Prohibit encroachments, including fill, new construction, substantial improvements, and other development unless certification by a registered professional engineer is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

(b) Where base flood elevations have been provided but floodways have not, the cumulative effect of any proposed development, when combined with all other existing and anticipated development, shall not increase the water surface elevation of the base flood more than one foot at any point.

(c) If LC 10.271-35(3)(a) is satisfied, all new construction and substantial improvements shall comply with all applicable provisions of LC 10.271-35(2).

(d) Subdivision and partitioning of land for residential purposes is prohibited if land is located entirely within the floodway.

-40 Emergency Permits. The Director may issue an emergency permit orally or in writing:

(1) If issued orally, a written permit shall follow within five days confirming the issuance and setting forth the conditions of operation.

(2) Emergency permits may be issued to protect existing shorelines or structures under immediate threat by flood or storm waters or for the prevention of channel changes that threaten immediate and significant loss of property.

(3) A representative of Lane County may inspect the project site to verify that an emergency condition exists and that the emergency action will not significantly impact water resources.

(4) Emergency permits shall be in effect for the time required to complete the authorized emergency action and shall not exceed 60 days.

(5) The emergency permit shall be circulated for public information within 10 days of issuance.

(6) The Director shall condition emergency permits to protect and conserve the waters of this County.

-45 Variance Procedures.

(1) Scope. Variance to a requirement standard or procedure of this section, with respect to the provisions for flood hazard reduction, may be approved by the Director if an application is submitted, reviewed and approved pursuant to the criteria for approving variances in LC 10.330, and the application complies with the additional criteria listed below.

(a) Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places of the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this subsection.

(b) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

(2) Conditions. Reasonable conditions may be established in connection with a variance as deemed necessary to secure the purpose and requirements of this section. In cases where a variance is granted to allow residential construction with a lowest floor elevation below the required minimum elevation, or nonresidential flood-proofing below the required minimum elevation, the applicant shall record a deed covenant, that the costs of flood insurance will be commensurable with the increased risk resulting from the reduced floor elevation of flood-proofing.

FLOODPLAIN COMBINING ZONE (/FP-RCP)

RURAL COMPREHENSIVE PLAN

16.244 Floodplain Combining Zone (/FP-RCP).

(1) Purpose. It is the purpose of this section to promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas. The provisions of this section are designed to:

(a) Protect human life and health.

(b) Minimize expenditure of public money and costly flood control projects.

(c) Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public.

(d) Minimize prolonged business interruptions.

(e) Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, and streets and bridges located in areas of special flood hazards.

(f) Help maintain a stable tax base by providing for the sound use and development of areas as special flood hazard so as to minimize future flood blight areas.

(g) Ensure that potential buyers are notified that property is in an area of special flood hazard.

(h) Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

(2) Methods of Reducing Flood Losses. In order to accomplish its purpose, this section includes methods and provisions for:

(a) Restricting or prohibiting uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities.

(b) Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction.

(c) Controlling the alteration of natural floodplains, stream channels and natural protective barriers, which help accommodate or channel flood waters.

(d) Controlling filling, grading, dredging and other development, which may increase flood damage.

(e) Preventing or regulating the construction of flood barriers, which will unnaturally divert flood waters or which may increase flood hazards in other areas.

(3) Lands to Which This Section Applies. This section shall apply to all areas of flood hazard within Lane County, and overlay the regulations of the underlying zone.

7-87; 6.17.87
12-87; 8.13.87
19-87; 10.14.87
3-91; 5.17.91

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Areas of flood hazard for Lane County under the jurisdiction of the Rural Comprehensive Plan are identified by the Federal Insurance Administration in a scientific and engineering report entitled "THE FLOOD INSURANCE STUDY FOR LANE COUNTY, OREGON UNINCORPORATED AREAS", with accompanying Flood Insurance Rate Maps and Floodway Maps.

Areas of flood hazard shall also include any land area designated by the Director as susceptible to inundation of water from any source where the above-referenced maps have not identified any special flood areas.

Flood hazard areas shall be adopted by Board Order, made a part of Lane Manual (LM 11.020) and filed in the office of the Department. Such studies shall form the basis for the administration and implementation of this section.

(4) Warning and Disclaimer of Liability. The degree of flood protection required by this section is considered reasonable for regulatory purposes. Larger floods can and will occur on rare occasions. Flood heights may be increased by human-made or natural causes. This section does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This section shall not create liability on the part of Lane County, any officer or employee thereof, for any flood damages that result from reliance on this section or any administrative decision lawfully made hereunder.

(5) Development Subject to Director Approval. Approval shall be obtained before construction or development begins within any area of special flood hazard. Approval shall be required for all structures, manufactured homes, and "development" as this term is defined in LC 16.090. Application for approval shall be filed with the Department pursuant to LC 14.050.

(6) Designation of Administrator. The Director shall:

(a) Review all development applications to determine that the permit requirements of this section have been satisfied.

(b) Review all development applications to determine that all necessary permits have been obtained from those Federal, State or Local governmental agencies from which prior approval is required.

(c) Review all development to determine if the proposed development is located in the floodway. If located in the floodway, assure that the encroachment provisions of LC 16.244(7)(c) are met.

(d) When base flood elevation data has not been provided in the Flood Insurance Study for Lane County, Oregon unincorporated areas, the Director shall obtain, review and reasonably utilize any base flood elevation and floodway data available from a Federal, State or other source in order to administer this section.

(e) Where base flood elevation data is provided through the Flood Insurance Study or required as in LC 16.244(6)(d),

obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement.

(f) For all new or substantially improved floodproofed structures:

(i) Verify and record the actual elevation (in relation to mean sea level); and

(ii) Maintain the flood-proofing certifications required in LC 16.244(7)(b)(ii)(cc).

(g) Maintain for public inspection all records pertaining to the Provisions of this section.

(h) Notify adjacent communities and the Division of State Lands prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration upon request.

(i) Require that a program of periodic inspection and maintenance be provided with the altered or relocated portion of said watercourse so that the flood carrying capacity of the watercourse is not diminished.

(j) Make interpretation, where needed, as to exact location of the boundaries of areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). A person contesting the location of the boundary may appeal the interpretation to the Hearings Official as provided in LC 14.500.

(7) Provisions for Flood Hazard Reduction. In all areas of flood hazard, the following standards are required:

(a) Unnumbered "A" Zones, where base flood elevation data cannot be supplied.

(i) Anchoring.

(aa) All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure.

(bb) All manufactured homes must likewise be anchored to prevent flotation, collapse or lateral movement; in accordance with the State of Oregon, Manufactured Dwelling Standard.

(ii) Construction Materials and Methods.

(aa) All new construction and substantial improvements shall be constructed with approved materials and utility equipment resistant to flood damage.

(bb) All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.

(cc) Electrical, heating, ventilation, plumbing and air-conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

(iii) Utilities.

(aa) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system.

(bb) New and replacement sanitary systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters; and

(cc) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

(iv) Subdivision Proposals.

(aa) All subdivision proposals shall be consistent with the need to minimize flood damage;

(bb) All subdivision proposals shall have public utilities and facilities such as gas, electrical and water systems located and constructed to minimize flood damage;

(cc) All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; and

(dd) Where base flood elevation data has not been provided or is not available from another authoritative source, it shall be generated for subdivision proposals and other proposed developments which contain at least 50 lots or five acres (whichever is less).

(v) Review of Building Permits. Where elevation data is not available either through the Flood Insurance Study or from another authoritative source, applications for building and manufactured home placement permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness shall include the use of historical data, high water marks, photographs of past flooding, etc., where available.

(vi) Elevation.

(aa) Residential Construction: new construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated two feet above grade.

(bb) Nonresidential Construction: new construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated two feet above grade; or, together with attendant utility and sanitary facilities, shall be flood-proofed to a level two feet above grade, so the structure is watertight with walls substantially impermeable to the passage of water.

(cc) Manufactured Home Placement: All manufactured homes not in an existing manufactured home park shall have the lowest floor elevated two feet above grade.

(dd) All manufactured homes within an existing manufactured home park shall be elevated such that the underside of the floor of the manufactured home is three feet above the finish grade.

(vii) Enclosed Areas. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect, or must meet or exceed the following minimum criteria:

-A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade.

-Openings shall be located to allow unrestricted cross-flow of floodwaters through the enclosed area from one side to the other.

-Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

7-87; 6.17.87
12-87; 8.13.87
19-87; 10.14.87
3-91; 5.17.91

WP I/co/00058/T
WP I/cr/98006/M

(viii) Roads. Adequate provisions shall be made for accessibility during a 100-year flood, so as to ensure ingress and egress for ordinary and emergency vehicles and services during potential future flooding.

(b) Numbered Zones A1-30, AH, AE, AO. In all areas of special flood hazards where base flood elevation data has been provided as set forth in LC 16.244(3) or LC 16.244(6)(d), the following provisions are required:

(i) Residential Construction

(aa) New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to one foot above base flood elevation.

(bb) Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces in exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:

-A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade.

-Openings shall be located to allow unrestricted cross-floor of floodwaters through the enclosed area from one side to the other.

-Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of flood waters.

(ii) Nonresidential Construction. New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated to a level at least one foot above the

base flood elevation; or, together with attendant utility and sanitary facilities shall:

(aa) be flood-proofed to one foot above the base flood level, so the structure is watertight with walls substantially impermeable to the passage of water;

(bb) have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;

(cc) be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this subsection based on their development and/or review of the structural design, specifications and plans. Such certification shall be provided to the official as set forth in LC 16.244(6)(f)(ii). Nonresidential structures that are elevated, not flood-proofed, must meet the same standards for space below the lowest floor as described in LC 16.244(7)(b)(i) (bb).

Applicants flood-proofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the flood-proofed level (e.g., a building constructed to the base flood level will be rated as one foot below that level).

(iii) Manufactured Homes.

(aa) All manufactured homes that are placed or substantially improved within Zones A1-30, AH and AE (i) on sites outside of a manufactured home park, (ii) on sites in a new manufactured home park, (iii) on sites in an expansion to an existing manufactured home park, or (iv) on sites within an existing manufactured home park and upon which manufactured homes have incurred substantial damage as the result of a flood, shall be elevated on a permanent foundation such that the underside of the floor of the manufactured home is elevated to a height of one foot above the base flood elevation.

7-87; 6.17.87
12.87; 8.13.87
19.87; 10.14.87
3-91; 5.17.91

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(bb) All manufactured homes to be placed or substantially improved on sites in an existing manufactured home park within Zones A1-30, AH or AE that are not subject to the provisions of paragraph 16.244(7)(b)(iii)(aa) above shall be elevated so that either (i) the underside of the floor of the manufactured home is one foot above the base flood level, or (ii) the manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade.

(cc) Recreational vehicles placed on sites within Zones A1-30, AH or AE shall (i) be on the site for fewer than 180 consecutive days and be fully licensed and ready for highway use, or (ii) shall satisfy the permit requirements of LC 16.244(5) and 16.244(7)(b)(iii)(aa) above. "Ready for highway use" means that the recreational vehicle is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.

(iv) Foundations.

(aa) Foundations for all new construction, substantial improvements, and manufactured homes that are not in an existing manufactured home park or existing manufactured home subdivision subject to 18 inches or more of flood water during a 100-year flood or located within a designated floodway shall be certified by an Oregon registered professional engineer or architect to meet the following minimum foundation requirements:

-concrete footings sized for 1000 psf soil pressure unless data to substantiate the use of higher values are submitted.

-footings extending below the frost line.

-reinforced concrete, reinforced masonry, or other suitably designed supporting systems to resist all vertical and lateral loads which may reasonably occur independently or combined.

(bb) All manufactured homes subject to less than 18 inches of flood water during a 100-year flood shall be supported in accordance with the State of Oregon, Manufactured Dwelling Standard.

(cc) All Manufactured homes located in an existing manufactured home park or existing manufactured home subdivision shall be supported in accordance with the State of Oregon, Manufactured Dwelling Standard.

(v) Anchoring.

(aa) All new construction and substantial improvements subject to less than 18 inches of flood water during a 100-year flood shall be anchored to prevent flotation or lateral movement.

(bb) All manufactured homes subject to less than 18 inches of flood water during a 100-year flood shall be anchored in accordance with the State of Oregon, Manufactured Dwelling Standard.

(cc) All new construction, substantial improvements and manufactured homes not in an existing manufactured home park or existing manufactured home subdivision subject to 18 inches or more of flood water during a 100-year flood or located within a designated floodway shall be anchored to prevent flotation or lateral movement which may reasonably occur independently or combined. Designs for meeting this requirement shall be certified by an Oregon registered engineer or architect.

(dd) All manufactured homes in existing manufactured home parks and existing manufactured home subdivisions shall be anchored in accordance with the State of Oregon, Manufactured Dwelling Standard.

(vi) Construction Materials and Methods.

(aa) All new construction and substantial improvements shall be constructed with approved materials and utility equipment resistant to flood damage.

(bb) All new construction and substantial improvements shall be constructed using approved methods and practices that minimize flood damage.

(cc) Electrical, heating, ventilation, plumbing and airconditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

(vii) Utilities.

(aa) All new replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system. Public water systems which utilize wells for a source(s) shall be constructed such that the top well elevation is at least one foot above the 100-year flood elevation.

(bb) New and replacement sanitary systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharged from the systems into flood waters.

(viii) Roads.

(aa) Adequate provisions shall be made for accessibility during a 100-year flood, so as to ensure ingress and egress for ordinary and emergency vehicles and services during potential future flooding.

(bb) No road surface of any new street, road or access road shall be at an elevation less than one foot below the base flood height.

(ix) Subdivision and Partitioning Proposals.

(aa) All subdivision and partitioning proposals shall be consistent with the need to minimize flood damage.

(bb) All subdivision proposals shall have adequate drainage to reduce exposure to flood damage, including returning water.

(cc) 100-year flood elevation data shall be provided and shown on final partition maps and subdivision plats. Applicant must show the boundaries of the 100-year flood and floodway on the final subdivision plat.

7-87; 6.17.87
12-87; 8.13.87
19.87; 10.14.87
3-91; 5.17.91

(dd) A permanent monument shall be established and maintained on land partitioned or subdivided showing the elevation in feet above mean sea level. The location of such monument shall be shown on the final partition map or subdivision plat.

(ee) All subdivision proposals shall have public utilities and facilities such as gas, electrical and water systems located and constructed to minimize flood damage.

(c) Floodways. Located within areas of special flood hazard established in LC 16.244(3) are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles and erosion potential, the following provisions apply:

(i) Prohibit encroachments, including fill, new construction, substantial improvements and other development unless certification by a registered professional engineer is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

(ii) Where base flood elevations have been provided but floodways have not, the cumulative effect of any proposed development, when combined with all other existing and anticipated development, shall not increase the water surface elevation of the base flood more than one foot at any point.

(iii) If LC 16.244(7)(c)(i) is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of LC 16.244(7)(b).

(iv) Subdivision and partitioning of land for residential purposes is prohibited if land is located entirely within the Floodway.

(8) Emergency Permits. The Director may issue an emergency permit orally or in writing:

(a) If issued orally, a written permit shall follow within five days confirming the issuance and setting forth the conditions of operation.

(b) Emergency permits may be issued to protect existing shorelines or structures under immediate threat by flood or storm waters or for the prevention of channel changes that threaten immediate and significant loss of property.

(c) A representative of Lane County may inspect the project site to verify that an emergency condition exists and that the emergency action will not significantly impact water resources.

(d) Emergency permits shall be in effect for the time required to complete the authorized emergency action and shall not exceed 60 days.

(e) The emergency permit shall be circulated for public information within 10 days of issuance.

(f) The Director shall condition emergency permits to protect and conserve the waters of this County.

(9) Variance Procedures.

(a) Scope. Variance to a requirement standard or procedure of this section, with respect to the provisions for flood hazard reduction, may be approved by the Director if an application is submitted, reviewed and approved pursuant to the criteria for approving variances in LC 16.256, and the application complies with the additional criteria listed below.

(i) Variances may be issued for the reconsideration, rehabilitation or restoration of structures listed on the National Register of Historic Places of the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this subsection.

(ii) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

(b) Conditions. Reasonable conditions may be established in connection with a variance as deemed necessary to secure the purpose and requirements of this section. In cases where a variance is granted to allow residential construction with a lowest floor elevation below the required minimum elevation, or nonresidential flood-proofing below the required minimum elevation, the applicant shall record a deed covenant, that the cost of flood insurance will be commensurable with the increased risk resulting from the reduced floor elevation of flood-proofing.

FLOODPLAIN COMBINING DISTRICT (/FP)

-05 Purpose. It is the purpose of this section to promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas. The provisions of this section are designed to:

(1) Protect human life and health.

(2) Minimize expenditure of public money and costly flood control projects.

(3) Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public.

(4) Minimize prolonged business interruptions.

(5) Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, and streets and bridges located in area of special flood hazards.

(6) Help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas.

(7) Ensure that potential buyers are notified that property is in an area of special flood hazard.

(8) Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

-10 Methods of Reducing Flood Losses. In order to accomplish its purpose, this section includes methods and provisions for:

(1) Restricting or prohibiting uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities.

(2) Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction.

(3) Controlling the alteration of natural floodplains, stream channels and natural protective barriers, which help accommodate or channel flood waters.

(4) Controlling filling, grading, dredging and other development, which may increase flood damage.

(5) Preventing or regulating the construction of flood barriers, which will unnaturally divert flood waters or which may increase flood hazards in other areas.

-15 Lands to Which This Section Applies. This section shall apply to all areas of flood hazard within Lane County, and overlay the regulations of the underlying zone. Areas of flood hazard for Lane County are identified by the Federal Insurance Administration in a scientific and engineering report entitled "THE FLOOD INSURANCE STUDY FOR LANE COUNTY, OREGON, UNINCORPORATED AREAS," with accompanying Flood Insurance Rate Maps (FIRM) and Floodway Maps. Areas of flood hazard shall also include any land areas designated by the Director as susceptible to inundation of water from any source where the above referenced maps have not identified any special flood areas. Flood hazard areas shall be adopted by Board Order, made a part of Lane Manual (LM 11.020) and filed in the office of the Department. Such studies shall form the basis for the administration and implementation of this section.

~~identified any special flood areas. Flood hazard areas shall be adopted by Board Order, made a part of Lane Manual (LM 11.020) and filed in the office of the Department. Such studies shall form the basis for the administration and implementation of this section.~~

-20 Warning and Disclaimer of Liability. The degree of flood protection required by this section is considered reasonable for regulatory purposes. Larger floods can and will occur on rare occasions. Flood heights may be increased by human-made or natural causes. This section does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This section shall not create liability on the part of Lane County, any officer or employee thereof, for any flood damages that result from reliance on this section or any administrative decision lawfully made hereunder.

-25 Development Subject to Director Approval. Approval shall be obtained before construction or development begins within any area of special flood hazard. Approval shall be required for all structures, manufactured homes, recreational vehicles as provided for by this section, and "development" as defined in LC 10.020. Application for approval shall be filed with the Department pursuant to LC 14.050.

-30 Designation of Administrator. The Director shall:

(1) Review all development applications to determine that the permit requirements of this section have been satisfied.

(2) Review all development application to determine that all necessary permits have been obtained from those federal, state or local governmental agencies from which prior approval is required.

(3) Review all development to determine if the proposed development is located in the floodway; and if in the floodway, assure that the encroachment provisions of this section are satisfied.

(4) When base flood elevation data has not been provided in the Flood Insurance Study for Lane County, Oregon, unincorporated areas, the Director shall obtain, review and reasonably utilize any base flood elevation and floodway data available from a federal, state or other source in order to administer this section.

(5) Where base flood elevation data is provided through the Flood Insurance Study or required by this section, obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement.

(6) For all new or substantially improved flood-proofed structures:

(a) Verify and record the actual elevation (mean sea level); and

(b) Maintain the flood-proofing certifications required by LC 10.271-35(2)(b)(iii).

(7) Maintain for public inspection all records pertaining to the provisions of this section.

(8) Notify adjacent communities and the Division of State Lands, prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration upon request.

(9) Require that a program of periodic inspection and maintenance be provided with the altered or relocated portion of said watercourse so that the flood carrying capacity of the watercourse is not diminished.

(10) Make interpretation, where needed, as to exact location of the boundaries of areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and the actual field conditions). A person contesting the location of the boundary may appeal the interpretation to the hearings official as provided in LC 14.500.

-35 Provisions for Flood Hazard Reduction. In all areas of flood hazard, the following standards are required:

(1) Unnumbered "A" Zones, where base flood elevation cannot be supplied.

(a) Anchoring.

(i) All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.

(ii) All manufactured homes must likewise be anchored to prevent flotation, collapse or lateral movement, in accordance with ~~standards of~~ the State of Oregon ~~Manufactured Dwelling Standard Building Codes Agency, Manufactured Structures Division.~~

(b) Construction Materials and Methods.

(i) All new construction and substantial improvements shall be constructed with approved materials and utility equipment resistant to flood damage.

(ii) All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.

(iii) Electrical, heating, ventilation, plumbing and air-conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating with the components during conditions of flooding.

(c) Utilities.

(i) All new or replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.

(ii) New and replacement sanitary systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters; and

(iii) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding."

(d) Subdivision Proposals.

(i) All subdivision proposals shall be consistent with the need to minimize flood damage;

(ii) All subdivision proposals shall have public utilities and facilities such as gas, electrical and water systems located and constructed to minimize flood damage;

(iii) All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; and

(iv) Where base flood elevation data has not been provided or is not available from another authoritative source, it shall be generated for subdivision proposal and other proposed developments which contain at least 50 lots or five acres, whichever is less.

(e) Review of Building Permits. Where elevation data is not available either through the Flood Insurance Study or from another authoritative source, applications for building and manufactured home placement permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness shall include the use of historical data, high water marks, photographs of past flooding, etc., where available.

(f) Elevation.

(i) Residential Construction: new construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated two feet above grade.

(ii) Nonresidential Construction: new construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated two feet above grade; or, together with attendant utility and sanitary facilities, shall be flood-proofed to a level two feet above grade, so the structure is watertight with walls substantially impermeable to the passage of water.

(iii) Manufactured Home Placement: all manufactured homes not in an existing manufactured home park ~~or existing manufactured home subdivision~~ shall have the lowest floor elevated two feet above grade.

~~(iv) All manufactured homes within an existing manufactured home park shall be elevated such that the underside of the floor joists of the manufactured home is elevated above the finish grade.~~

(g) Enclosed Areas. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect, or must meet or exceed the following minimum criteria:

(i) A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade.

(ii) Openings shall be located to allow unrestricted cross-flow of floodwaters through the enclosed area from one side to the other.

(iii) Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

(h) Roads. Adequate provisions shall be made for accessibility during a 100-year flood, so as to ensure ingress and egress for ordinary and emergency vehicles and services during potential future flooding.

(2) Numbered Zones A1-30, AH, AE, AO. In all areas of special flood hazards where base flood elevation data has been provided as set forth in LC 10.271-15 or 10.271-30(4) the following provisions are required:

(a) Residential Construction.

(i) New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to one foot above base flood elevation.

(ii) Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces in exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:

(aa) A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade.

(bb) Openings shall be located to allow unrestricted cross-flow of floodwaters through the enclosed area from one side to the other.

(cc) Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

(b) Nonresidential Construction. New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated to a level at least one foot above the base flood elevation; or, together with attendant utility and sanitary facilities shall:

(i) Be floodproofed to one foot above the base flood level, so the structure is watertight with walls substantially impermeable to the passage of water;

(ii) Have structural components capable of resisting hydrostatic and hydrodynamics loads and effects of buoyancy;

~~of flood water during a 100-year flood or located within a designated floodway shall be certified by an Oregon registered professional engineer or architect to meet the following minimum requirements:~~

(aa) Concrete footings sized for 100 psf soil pressure unless data to substantiate the use of higher values are submitted.

(bb) Footings extending below the frost line.

(cc) Reinforced concrete, reinforced masonry, or other suitably designed supporting systems to resist all vertical and lateral loads which may reasonably occur independently or combined.

(ii) All manufactured homes subject to less than 18 inches of flood water during a 100-year flood shall be supported in accordance with the State of Oregon ~~Manufactured Dwelling Standard~~Building ~~Codes Agency~~.

(iii) All manufactured homes located in an existing manufactured home park or existing manufactured home subdivision shall be supported in accordance with ~~standards of~~ the State of Oregon ~~Manufactured Dwelling Standard~~Building ~~Codes Agency, Manufactured Structures Division~~.

(e) Anchoring.

(i) All new construction and substantial improvement subject to less than 18 inches of flood water during a 100-year flood shall be anchored to prevent flotation or lateral movement.

(ii) All new construction and substantial improvement subject to less than 18 inches of flood water during a 100-year flood shall be anchored in accordance with ~~the standards of~~ the State of Oregon ~~Manufactured Dwelling Standard~~Building ~~Codes Agency, Manufactured Structures Division~~.

(iii) All new construction, substantial improvements and manufactured homes not in an existing manufactured home park or existing manufactured home subdivision subject to 18 inches or more of flood water during a 100-year flood or located within a designated floodway shall be anchored to prevent flotation or lateral movement which may reasonably occur independently or combined. Designs for meeting this requirement shall be certified by an Oregon registered engineer or architect.

(iv) All manufactured homes in existing manufactured home parks and existing manufactured home subdivisions shall be anchored in accordance with ~~standards of~~ the State of Oregon ~~Manufactured Dwelling Standard~~Building ~~Codes Agency, Manufactured Structures Division~~.

(f) Construction Materials and Methods.

(i) All new construction and substantial improvements shall be constructed with approved materials and utility equipment resistant to flood damage.

(iii) Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice based on their development and/or review of the structural design, specifications and plans. Such certification shall be provided to the official as set forth in LC 10.271-30(6)(b). Nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the lowest floor as described in LC 10.271-35(2)(a).

(iv) Applicants floodproofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the floodproofed level (e.g., a building constructed to the base flood level will be rated as one foot below that level).

(c) Manufactured Homes.

(i) All manufactured homes that are placed or substantially improved within Zones A1-30, AH and AE (i) on sites outside of a manufactured home park ~~or subdivision~~, (ii) on sites in a new manufactured home park ~~or subdivision~~, (iii) on sites in an expansion to an existing manufactured home park ~~or subdivision~~, or (iv) on sites within an existing manufactured home park ~~or subdivision~~ and upon which manufactured homes have incurred substantial damage as the result of a flood, shall be elevated on a permanent foundation such that the underside of the ~~lowest~~ floor of the manufactured home is elevated to a height of one foot above the base flood elevation.

(ii) All manufactured homes to be placed or substantially improved on sites in an existing manufactured home park ~~or subdivision~~ within Zones A1-30, AH or AE that are not subject to the provisions of paragraph 10.271-35(2)(c)(i) above shall be elevated so that either (i) ~~the underside of the floor of the manufactured home is one foot above the base flood level~~ ~~the lowest floor of the manufactured home is at or above the base flood elevation~~, or (ii) the manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade.

(iii) Recreational vehicles placed on sites within Zones A1-30, AH or AE shall (i) be on the site for fewer than 180 consecutive days and be fully licensed and ready for highway use, or (ii) shall satisfy the permit requirements of LC 10.271-25 above. "Ready for highway use" means that the recreational vehicle is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.

(d) Foundations.

(i) Foundations for all new construction, substantial improvements, and manufactured homes that are not in an existing manufactured home park or existing manufactured home subdivision subject to 18 inches or more ~~of flood water during a 100-year flood or located within a designated floodway~~ shall be certified by an Oregon registered professional engineer or architect to meet the ~~following minimum requirements~~:

(ii) All new construction and substantial improvements shall be constructed using approved methods and practices that minimize flood damage.

(iii) Electrical, heating, ventilation, plumbing and air-conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

(g) Utilities.

(i) All new replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system. Public water systems which utilize wells for a source(s) shall be constructed such that the top well elevation is at least one foot above the 100-year flood elevation.

(ii) New and replacement sanitary systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharged from the systems into flood waters.

(h) Roads.

(i) Adequate provisions shall be made for accessibility during a 100-year flood, so as to ensure ingress and egress for ordinary and emergency vehicles and services during potential future flooding.

(ii) No road surface of any new street, road or access road shall be at an elevation less than one foot below the base flood height.

(i) Subdivision and Partitioning Proposals.

(i) All subdivision and partitioning proposals shall be consistent with the need to minimize flood damage.

(ii) All subdivision proposals shall have adequate drainage to reduce exposure to flood damage, including returning water.

(iii) 100-year flood elevation data shall be provided and shown on final partition maps and subdivision plats. Applicant must show the boundaries of the 100-year flood and floodway on the final subdivision plat.

(iv) A permanent monument shall be established and maintained on land partitioned or subdivided showing the elevation in feet above mean sea level. The location of such monument shall be shown on the final partition map or subdivision plat.

(v) All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage.

(3) Floodways. Located within areas of special flood hazard established in LC 10.271-15 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles and erosion potential, the following provisions apply:

(a) Prohibit encroachments, including fill, new construction, substantial improvements, and other development unless certification by a registered professional engineer is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

~~professional engineer is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.~~

(b) Where base flood elevations have been provided but floodways have not, the cumulative effect of any proposed development, when combined with all other existing and anticipated development, shall not increase the water surface elevation of the base flood more than one foot at any point.

(c) If LC 10.271-35(3)(a) is satisfied, all new construction and substantial improvements shall comply with all applicable provisions of LC 10.271-35(2).

(d) Subdivision and partitioning of land for residential purposes is prohibited if land is located entirely within the floodway.

-40 Emergency Permits. The Director may issue an emergency permit orally or in writing:

(1) If issued orally, a written permit shall follow within five days confirming the issuance and setting forth the conditions of operation.

(2) Emergency permits may be issued to protect existing shorelines or structures under immediate threat by flood or storm waters or for the prevention of channel changes that threaten immediate and significant loss of property.

(3) A representative of Lane County may inspect the project site to verify that an emergency condition exists and that the emergency action will not significantly impact water resources.

(4) Emergency permits shall be in effect for the time required to complete the authorized emergency action and shall not exceed 60 days.

(5) The emergency permit shall be circulated for public information within 10 days of issuance.

(6) The Director shall condition emergency permits to protect and conserve the waters of this County.

-45 Variance Procedures.

(1) Scope. Variance to a requirement standard or procedure of this section, with respect to the provisions for flood hazard reduction, may be approved by the Director if an application is submitted, reviewed and approved pursuant to the criteria for approving variances in LC 10.330, and the application complies with the additional criteria listed below.

(a) Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places of the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this subsection.

(b) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

(2) Conditions. Reasonable conditions may be established in connection with a variance as deemed necessary to secure the purpose and requirements of this section. In cases where a variance is granted to allow residential construction with a lowest floor elevation below the required minimum elevation, or nonresidential flood-proofing below the required minimum elevation, the applicant shall record a deed covenant, that the costs of flood insurance will be commensurable with the increased risk resulting from the reduced floor elevation of flood-proofing.

FLOODPLAIN COMBINING ZONE (/FP-RCP)

RURAL COMPREHENSIVE PLAN

16.244 Floodplain Combining Zone (/FP-RCP).

(1) Purpose. It is the purpose of this section to promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas. The provisions of this section are designed to:

(a) Protect human life and health.

(b) Minimize expenditure of public money and costly flood control projects.

(c) Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public.

(d) Minimize prolonged business interruptions.

(e) Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, and streets and bridges located in areas of special flood hazards.

(f) Help maintain a stable tax base by providing for the sound use and development of areas as special flood hazard so as to minimize future flood blight areas.

(g) Ensure that potential buyers are notified that property is in an area of special flood hazard.

(h) Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

(2) Methods of Reducing Flood Losses. In order to accomplish its purpose, this section includes methods and provisions for:

(a) Restricting or prohibiting uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities.

(b) Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction.

(c) Controlling the alteration of natural floodplains, stream channels and natural protective barriers, which help accommodate or channel flood waters.

(d) Controlling filling, grading, dredging and other development, which may increase flood damage.

(e) Preventing or regulating the construction of flood barriers, which will unnaturally divert flood waters or which may increase flood hazards in other areas.

(3) Lands to Which This Section Applies. This section shall apply to all areas of flood hazard within Lane County, and overlay the regulations of the underlying zone.

Areas of flood hazard for Lane County under the jurisdiction of the Rural Comprehensive Plan are identified by the Federal Insurance Administration in a scientific and engineering report entitled "THE FLOOD INSURANCE STUDY FOR LANE COUNTY, OREGON UNINCORPORATED AREAS", with accompanying Flood Insurance Rate Maps and Floodway Maps.

Areas of flood hazard shall also include any land area designated by the Director as susceptible to inundation of water from any source where the above-referenced maps have not identified any special flood areas.

Flood hazard areas shall be adopted by Board Order, made a part of Lane Manual (LM 11.020) and filed in the office of the Department. Such studies shall form the basis for the administration and implementation of this section.

(4) Warning and Disclaimer of Liability. The degree of flood protection required by this section is considered reasonable for regulatory purposes. Larger floods can and will occur on rare occasions. Flood heights may be increased by human-made or natural causes. This section does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This section shall not create liability on the part of Lane County, any officer or employee thereof, for any flood damages that result from reliance on this section or any administrative decision lawfully made hereunder.

(5) Development Subject to Director Approval. Approval shall be obtained before construction or development begins within any area of special flood hazard. Approval shall be required for all structures, manufactured homes, and "development" as this term is defined in LC 16.090. Application for approval shall be filed with the Department pursuant to LC 14.050.

(6) Designation of Administrator. The Director shall:

(a) Review all development applications to determine that the permit requirements of this section have been satisfied.

(b) Review all development applications to determine that all necessary permits have been obtained from those Federal, State or Local governmental agencies from which prior approval is required.

(c) Review all development to determine if the proposed development is located in the floodway. If located in the floodway, assure that the encroachment provisions of LC 16.244(7)(c) are met.

(d) When base flood elevation data has not been provided in the Flood Insurance Study for Lane County, Oregon unincorporated areas, the Director shall obtain, review and reasonably utilize any base flood elevation and floodway data available from a Federal, State or other source in order to administer this section.

(e) Where base flood elevation data is provided through the Flood

Insurance Study or required as in LC 16.244(6)(d), obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement.

(f) For all new or substantially improved flood- proofed structures:

(i) Verify and record the actual elevation (in relation to mean sea level); and

(ii) Maintain the flood-proofing certifications required in LC 16.244(7)(b)(ii)(cc).

(g) Maintain for public inspection all records pertaining to the Provisions of this section.

(h) Notify adjacent communities and the Division of State Lands prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration upon request.

(i) Require that a program of periodic inspection and maintenance be provided with the altered or relocated portion of said watercourse so that the flood carrying capacity of the watercourse is not diminished.

(j) Make interpretation, where needed, as to exact location of the boundaries of areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). A person contesting the location of the boundary may appeal the interpretation to the Hearings Official as provided in LC 14.500.

(7) Provisions for Flood Hazard Reduction. In all areas of flood hazard, the following standards are required:

(a) Unnumbered "A" Zones, where base flood elevation data cannot be supplied.

(i) Anchoring.

(aa) All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure.

(bb) All manufactured homes must likewise be anchored to prevent flotation, collapse or lateral movement, in accordance with ~~standards of~~ the State of Oregon, ~~Manufactured Dwelling Standard~~ ~~Building Codes Agency, Manufactured Structures Division~~.

(ii) Construction Materials and Methods.

(aa) All new construction and substantial improvements shall be constructed with approved materials and utility equipment resistant to flood damage.

(bb) All new construction and substantial improvements shall be constructed using methods

and practices that minimize flood damage.

(cc) Electrical, heating, ventilation, plumbing and air-conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

(iii) Utilities.

(aa) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system.

(bb) New and replacement sanitary systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters; and

(cc) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

(iv) Subdivision Proposals.

(aa) All subdivision proposals shall be consistent with the need to minimize flood damage;

(bb) All subdivision proposals shall have public utilities and facilities such as gas, electrical and water systems located and constructed to minimize flood damage;

(cc) All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; and

(dd) Where base flood elevation data has not been provided or is not available from another authoritative source, it shall be generated for subdivision proposals and other proposed developments which contain at least 50 lots or five acres (whichever is less).

(v) Review of Building Permits. Where elevation data is not available either through the Flood Insurance Study or from another authoritative source, applications for building and manufactured home placement permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness shall include the use of historical data, high water marks, photographs of past flooding, etc., where available.

(vi) Elevation.

(aa) Residential Construction: new construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated two feet above grade.

(bb) Nonresidential Construction: new construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated two feet above grade; or, together with attendant utility and sanitary facilities, shall be flood-proofed to a level two feet above grade, so the structure is watertight with walls substantially impermeable to the passage of water.

(cc) Manufactured Home Placement: All manufactured homes not in an existing manufactured home park ~~or existing manufactured home subdivision~~ shall have the lowest floor elevated two feet above grade.

~~(dd) All manufactured homes within an existing manufactured home park shall be elevated such that the underside of the floor of the manufactured home is three feet above the finish grade.~~

(vii) Enclosed Areas. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect, or must meet or exceed the following minimum criteria:

-A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade.

-Openings shall be located to allow unrestricted cross-flow of floodwaters through the enclosed area from one side to the other.

-Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

(viii) Roads. Adequate provisions shall be made for accessibility during a 100-year flood, so

as to ensure ingress and egress for ordinary and emergency vehicles and services during potential future flooding.

(b) Numbered Zones A1-30, AH, AE, AO. In all areas of special flood hazards where base flood elevation data has been provided as set forth in LC 16.244(3) or LC 16.244(6)(d), the following provisions are required:

(i) Residential Construction.

(aa) New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to one foot above base flood elevation.

(bb) Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces in exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:

-A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade.

-Openings shall be located to allow unrestricted cross-floor of floodwaters through the enclosed area from one side to the other.

-Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of flood waters.

(ii) Nonresidential Construction. New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated to a level at least one foot above the base

flood elevation; or, together with attendant utility and sanitary facilities shall:

(aa) be flood-proofed to one foot above the base flood level, so the structure is watertight with walls substantially impermeable to the passage of water;

(bb) have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;

(cc) be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this subsection based on their development and/or review of the structural design, specifications and plans. Such certification shall be provided to the official as set forth in LC 16.244(6)(f)(ii). Nonresidential structures that are elevated, not flood-proofed, must meet the same standards for space below the lowest floor as described in LC 16.244(7)(b)(i) (bb).

Applicants flood-proofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the flood-proofed level (e.g., a building constructed to the base flood level will be rated as one foot below that level).

(iii) Manufactured Homes.

(aa) All manufactured homes that are placed or substantially improved within Zones A1-30, AH and AE (i) on sites outside of a manufactured home park ~~or subdivision~~, (ii) on sites in a new manufactured home park ~~or subdivision~~, (iii) on sites in an expansion to an existing manufactured home park ~~or subdivision~~, or (iv) on sites within an existing manufactured home park ~~or subdivision~~ and upon which manufactured homes have incurred substantial damage as the result of a flood, shall be elevated on a permanent foundation such that the underside of the ~~lowest~~ floor of the manufactured home is elevated to a height of one foot above the base flood elevation.

7-87; 6.17.87
12.87; 8.13.87
19.87; 10.14.87
3-91; 5.17.91

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(bb) All manufactured homes to be placed or substantially improved on sites in an existing manufactured home park ~~or subdivision~~ within Zones A1-30, AH or AE that are not subject to the provisions of paragraph 16.244(7)(b)(iii)(aa) above shall be elevated so that either (i) ~~the underside of the floor of the manufactured home is one foot above the base flood level~~ ~~the lowest floor of the manufactured home is at or above the base flood elevation~~, or (ii) the manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade.

(cc) Recreational vehicles placed on sites within Zones A1-30, AH or AE shall (i) be on the site for fewer than 180 consecutive days and be fully licensed and ready for highway use, or (ii) shall satisfy the permit requirements of LC 16.244(5) and 16.244(7)(b)(iii)(aa) above. "Ready for highway use" means that the recreational vehicle is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.

(iv) Foundations.

(aa) Foundations for all new construction, substantial improvements, and manufactured homes that are not in an existing manufactured home park or existing manufactured home subdivision subject to 18 inches or more of flood water during a 100-year flood or located within a designated floodway shall be certified by an Oregon registered professional engineer or architect to meet the following minimum foundation requirements:

-concrete footings sized for 1000 psf soil pressure unless data to substantiate the use of higher values are submitted.

-footings extending below the frost line.

-reinforced concrete, reinforced masonry, or other suitably designed supporting systems to resist all vertical and lateral loads which may reasonably occur independently or combined.

(bb) All manufactured homes subject to less than 18 inches of flood water during a 100-year flood shall be supported in accordance with ~~standards of~~ the State of Oregon, ~~Manufactured Dwelling Standard~~ ~~Department of Commerce, Manufactured home Division~~.

(cc) All Manufactured homes located in an existing manufactured home park or existing manufactured home subdivision shall be supported in accordance with ~~standards of~~ the State of Oregon, ~~Manufactured Dwelling Standard~~ ~~Department of Commerce, Manufactured home Division~~.

(v) Anchoring.

(aa) All new construction and substantial improvements subject to less than 18 inches of flood water during a 100-year flood shall be anchored to prevent flotation or lateral movement.

(bb) All manufactured homes subject to less than 18 inches of flood water during a 100-year flood shall be anchored in accordance with ~~standards of~~ the State of Oregon, ~~Manufactured Dwelling Standard~~ ~~Department of Commerce, Manufactured home Division~~.

(cc) All new construction, substantial improvements and manufactured homes not in an existing manufactured home park or existing manufactured home subdivision subject to 18 inches or more of flood water during a 100-year flood or located within a designated floodway shall be anchored to prevent flotation or lateral movement which may reasonably occur independently or combined. Designs for meeting this requirement shall be certified by an Oregon registered engineer or architect.

(dd)All manufactured homes in existing manufactured home parks and existing manufactured home subdivisions shall be anchored in accordance with ~~standards of~~ the State of Oregon, ~~Manufactured Dwelling Standard~~ ~~Department of Commerce, Manufactured home Division~~.

(vi) Construction Materials and Methods.

(aa) All new construction and substantial improvements shall be constructed with approved materials and utility equipment resistant to flood damage.

(bb) All new construction and substantial improvements shall be constructed using approved methods and practices that minimize flood damage.

(cc) Electrical, heating, ventilation, plumbing and air-conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

(vii) Utilities.

(aa) All new replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system. Public water systems which utilize wells for a source(s) shall be constructed such that the top well elevation is at least one foot above the 100-year flood elevation.

(bb) New and replacement sanitary systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharged from the systems into flood waters.

(viii) Roads.

(aa) Adequate provisions shall be made for accessibility during a 100-year flood, so as to ensure ingress and egress for ordinary and emergency vehicles and services during potential future flooding.

(bb) No road surface of any new street, road or access road shall be at an elevation less than one foot below the base flood height.

(ix) Subdivision and Partitioning Proposals.

(aa) All subdivision and partitioning proposals shall be consistent with the need to minimize flood damage.

(bb) All subdivision proposals shall have adequate drainage to reduce exposure to flood damage, including returning water.

(cc) 100-year flood elevation data shall be provided and shown on final partition maps and subdivision plats. Applicant must show the boundaries of the 100-year flood and floodway on the final subdivision plat.

7-87; 6.17.87
12-87; 8.13.87
19.87; 10.14.87
3-91; 5.17.91

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(dd) A permanent monument shall be established and maintained on land partitioned or subdivided showing the elevation in feet above mean sea level. The location of such monument shall be shown on the final partition map or subdivision plat.

(ee) All subdivision proposals shall have public utilities and facilities such as gas, electrical and water systems located and constructed to minimize flood damage.

(c) Floodways. Located within areas of special flood hazard established in LC 16.244(3) are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles and erosion potential, the following provisions apply:

(i) Prohibit encroachments, including fill, new construction, substantial improvements and other development unless certification by a registered professional engineer is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

(ii) Where base flood elevations have been provided but floodways have not, the cumulative effect of any proposed development, when combined with all other existing and anticipated development, shall not increase the water surface elevation of the base flood more than one foot at any point.

(iii) If LC 16.244(7)(c)(i) is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of LC 16.244(7)(b).

(iv) Subdivision and partitioning of land for residential purposes is prohibited if land is located entirely within the Floodway.

(8) Emergency Permits. The Director may issue an emergency permit orally or in writing:

(a) If issued orally, a written permit shall follow within five days confirming the issuance and setting forth the conditions of operation.

(b) Emergency permits may be issued to protect existing shorelines or structures under immediate threat by flood or storm waters or for the prevention of channel changes that threaten immediate and significant loss of property.

(c) A representative of Lane County may inspect the project site to verify that an emergency condition exists and that the emergency action will not significantly impact water resources.

(d) Emergency permits shall be in effect for the time required to complete the authorized emergency action and shall not exceed 60 days.

(e) The emergency permit shall be circulated for public information within 10 days of issuance.

(f) The Director shall condition emergency permits to protect and conserve the waters of this County.

(9) Variance Procedures.

(a) Scope. Variance to a requirement standard or procedure of this section, with respect to the provisions for flood hazard reduction, may be approved by the Director if an application is submitted, reviewed and approved pursuant to the criteria for approving variances in LC 16.256, and the application complies with the additional criteria listed below.

(i) Variances may be issued for the reconsideration, rehabilitation or restoration of structures listed on the National Register of Historic Places of the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this subsection.

(ii) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

(b) Conditions. Reasonable conditions may be established in connection with a variance as deemed necessary to secure the purpose and requirements of this section. In cases where a variance is granted to allow residential construction with a lowest floor elevation below the required minimum elevation, or nonresidential flood-proofing below the required minimum elevation, the applicant shall record a deed covenant, that the cost of flood insurance will be commensurable with the increased risk resulting from the reduced floor elevation of flood-proofing.

7-87; 6.17.87
12.87; 8.13.87
19.87; 10.14.87
3-91; 5.17.91

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Exhibit "A"

Ordinance 2-98

FINDINGS IN SUPPORT OF ADOPTION OF THE ORDINANCE

1. The Federal Emergency Management Agency (FEMA) has notified Lane County that a change to Lane Code 10.271 and 16.244 with respect to the placement of public and services is required for continued participation in the National Flood Insurance Program (NFIP). Application for entry into the Community Rating System (CRS) requires FEMA certification of NFIP eligibility status within one year of a Community Assistance Visit (CAV) which occurred in April, 1997.

   Through participation in the Community Ratings System, Lane County residents would receive discounts in their flood insurance premiums. The Board finds that it is desirable and appropriate that the County should continue to participate in the Community Rating System and therefore concludes that the Code change is necessary, reasonable and proper.

2. Lane Code 10.272 and 16.244 provisions for structural placement and development within floodplain and floodways do not comply with the current (1997) State of Oregon Manufactured Dwelling Standard, which establishes standards for elements including anchoring, elevation above minimum flood level and foundations. Because of this, individuals referring to the above-cited Code provisions are not correctly informed of the state standards. The Board finds that it is desirable and appropriate that the provisions of the County's floodplain zoning districts be in compliance with, and not contradict, the Oregon Manufactured Dwelling Standard for placement and development of manufactured homes within floodplain and floodway areas.

3. Policy support for the Code amendments is found in the Lane County Rural Comprehensive Plan Policies element, goal seven ("Areas Subject to Natural Disasters and Hazards") in the form of Policy #4, which states, ***Lane County shall continue as a qualified participant in the Federal Flood Insurance Program through application of comprehensive flood hazards analysis and floodplain management data to general and specific land use decision.*** The Board finds that this policy mandates the County to maintain its participation in the flood insurance program by remaining in compliance with FEMA and Oregon state building requirements for floodplain and floodway development.

4. Lane Code 10.315-20 and 16.242(2) equally mandate ***...Changes to the requirements of this Chapter shall be enacted to achieve the general purpose of this Chapter and shall not be contrary to the public interest.*** General purposes of the Chapters are to ***protect the public health, safety and welfare*** (LC 10.015) as well as to ***coordinate regulations in Lane County governing the development and use of lands*** (L.C. 16.003). Lane Code 10.015(4) has the specific purpose ***To secure safety from fire, panic, flood and other dangers,*** and Lane Code 16.003(11) has the specific purpose to ***Protect life and property in areas subject to floods, landslide and other natural disasters and hazards.***

   The Board finds that the amendments set forth in Ordinance 2-98 comply with the general purposes of both Chapters and further comply with the specific purposes cited herein, and that maintaining such compliance in the public interest in that the public will continue to be informed of federal and state floodplain and floodway development requirements and their impacts on proposed development.

→ Attachment 2 c/m Ord 2-98 ←

Lane County
Public Works
LAND MANAGEMENT DIVISION

MEMORANDUM

February 3, 1998

To: Lane County Planning Commission

From: Michael Copely and Thom Lanfear, Land Management Division

Re: Proposed Changes to Lane County Floodplain Regulations

This memo is being provided to you in lieu of a Staff Report. The item in question is coming before the Commission for pubic hearing and recommendation February 17, 1998.

Lane County currently administers flood hazard area regulations which govern development and building, including the placement of manufacturing dwellings, in such areas. These are codified in Lane Code 10.271 and 16.244. Excerpts of the two Code sections as now written are attached here for your review.

Two categories of amendments/updates to these Code sections are being proposed as "housekeeping" measures, as described below:

1. Recent amendments to the Oregon Manufactured Dwelling Standard (e.g., Building Code for manufactured dwellings) have resulted in a discrepancy in what the Building Code requires and what the County's floodplain regulation require. For example, where the County's regulations presently require that the lowest floor of a manufactured home in a flood hazard area be one foot above the base flood elevation, the Building Code now required that the underside of the floor be one foot above the elevation. The elevation difference can amount to a foot or more.

   While the difference may appear limited, administration of the County's floodplain regulations as now written creates a situation where an applicant for a manufactured home placement permit in a flood area can receive zoning signoff on the basis of existing zoning regulations from the Land Management Division's planning office, only to have it modified by the Division's building section which administers the Building Code. In the interest of efficient operations and fairness to applicants, the two sets of regulations should mandate the same standards.

2. The second change proposed is a modification to the County's flood hazard regulations to require subdivisions to have public facilities and services located and constructed to minimize flood damage. The Federal Emergency Management Agency (FEMA) has instructed the County to amend its regulations to incorporate this provision in order for the County to participate in the Community Rating System and thus allow flood insurance purchasers to be eligible for discounts in their premiums.

(Attached to this memo are draft mockups of how the proposed new language would be integrated into Lane Code 10.271 and 16.244. Code sections to be deleted are in **[boldface brackets]** and sections to be added are in ***boldface italics***. Building Code-generated amendments occur throughout the mockups, and the FEMA change noted in 2. above occurs in the last paragraph only.) (B/CC: See note below)

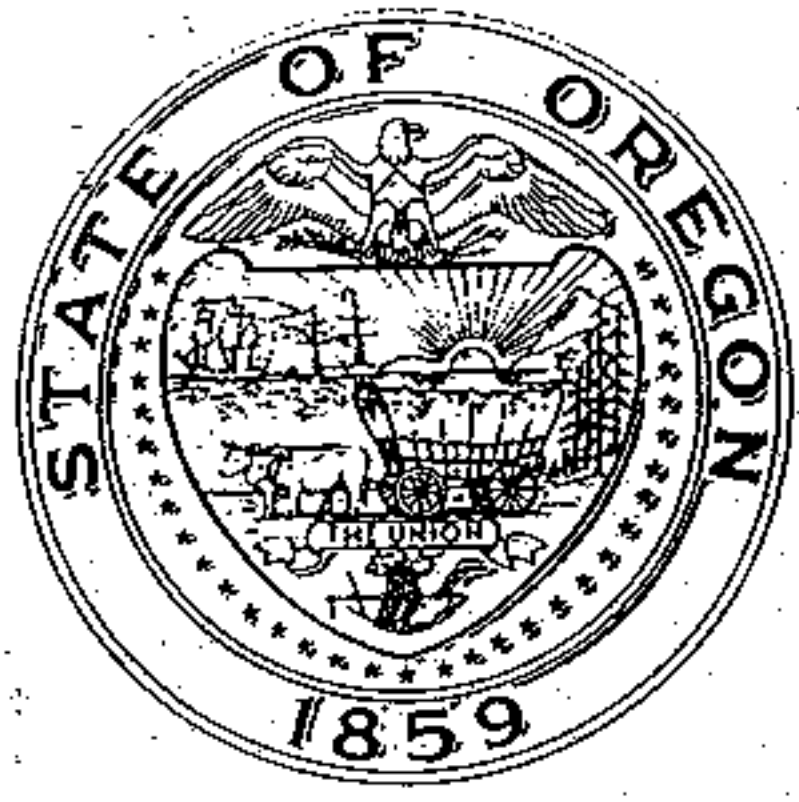
Also attached as background information is an excerpt from the 1997 Oregon Manufactured Dwelling Standard and an April 24, 1997 letter from FEMA to the County.

Staff recommends the Commission conduct its public hearing on the proposed Code amendments and forward them to the Board of County Commissioners with a recommendation for approval.

NOTE: Because text of the changes appear in Ordinance 2-98, this portion of LCPC report is not duplicated here. Other portions are attached.

BACKGROUND INFORMATION

1997 OREGON MANUFACTURED DWELLING STANDARD



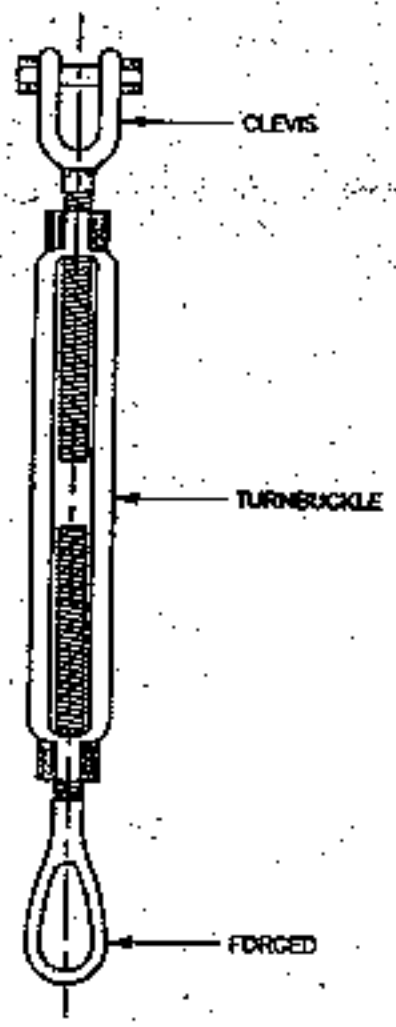


Figure 307.7
Turnbuckle Tie Down Tensioning Device

(3) Ties shall connect the ground anchor to the main structural steel frame (I-beam or equivalent) which runs lengthwise under the manufactured dwelling (See Figure 307.5). Ties shall not connect to steel outrigger or crossmember beams which fasten to and intersect with the main structural frame;
(4) The connection of cable frame ties to the manufactured dwelling main structural frame member shall be by a 5/8 inch (16 mm) drop-forged, closed-eye bolt through a hole drilled in the upper one-quarter of the main frame or other approved methods. The main frame shall be reinforced, if necessary, to maintain the designed strength of the mainframe (See Figure 307.6);
(5) Cable ends shall be secured with at least three U-bolt type cable clamps with the U-portion of the clamp installed on the short (dead) end of the cable to assure strength equal to that required by Subsection (e) of this section (See Figure 307.6);
(6) Strapping installed on manufactured dwellings located within 20 miles (32 kilometers) of the coast shall be stainless steel or 0.035 inch (0.09 cm) thick and 1-1/4 inch (3.18 cm) wide steel, coated with not less than 0.30 ounces (8.51 g) of zinc per foot (.30 meters) and certified as conforming to ASTM Standard Specification D-3953-91;
(7) Tension devices such as turnbuckles or yoke type fasteners shall be ended with clevis, forged or welded eyes (See Figure 307.7); and
(8) Tie materials shall be designed to prevent self-disconnection when ties are slack. Open hook ends shall not be used in any part of the anchoring system.

(i) **Spacing.** Unless specified in the anchoring equipment manufacturer's installation instructions, anchoring devices shall be installed 11 feet (3.35 meters) on center and no more than 1 foot (.30 meters) from each end on both sides of the manufactured dwelling.

(j) **Capacity.** Under no condition shall the actual loads exceed the design capacity of the anchoring system or equipment.

(k) **Certification.** Anchoring equipment is certified when tested, listed and labeled by a nationally recognized testing and listing laboratory, or designed by an Oregon licensed professional engineer or architect and approved by the authority having jurisdiction.

SECTION 308
FLOOD RESISTANCE

(a) **Location.** Manufactured dwellings and cabanas shall not be installed in designated flood ways but may be installed in flood hazard areas according to the minimum requirements of this section.

(b) **Tie-Downs.** All manufactured dwellings and cabanas installed in designated flood hazard areas shall be tied down according to Section 307 of this standard to resist flotation, collapse or lateral movement during a base flood.

(c) **Elevation.** All manufactured dwellings and cabanas in designated flood hazard areas shall be elevated to resist flotation, collapse or lateral movement during a base flood according to the following:
(1) Manufactured dwellings and cabanas installed inside manufactured dwelling parks, mobile home parks or combination parks shall be installed so the underside of the floor of the manufactured dwelling is 12 inches (30 cm) above base flood level or 3 feet (0.91 meters) above the finish grade.
(2) Manufactured dwellings and cabanas installed in a subdivision or on private or public land outside a manufactured dwelling park, mobile home park or combination park shall be installed so the underside of the floor of the manufactured dwelling is 12 inches (30 cm) above base flood level.

NOTE: The following information is not adopted as part of this standard but referenced in this standard for the convenience of the user. Users should review the regulations cited to insure the information is still correct.

Note: In addition to the state's minimum standards for elevating manufactured dwellings in flood hazard areas, 44 CFR, Chapter I, Section 60.3(c)(6)(iv) of the Federal Emergency Management Agency (FEMA) regulations, requires all manufactured dwellings and cabanas in designated flood hazard areas to be elevated to resist flotation, collapse and lateral movement during the base flood according to the following:

(1) If manufactured dwelling parks, mobile home parks or combination parks existed prior to the local jurisdiction's entry into the National Flood Insurance Program:

(A) Manufactured dwellings and cabanas shall either be installed so the underside of the floor is 12 inches (30 cm) above the base flood level or 3 feet (0.91 meters) above the finished grade, but not less.

(B) Manufactured dwellings and cabanas which sustain substantial damage during a flood must either be elevated so the underside of the floor is 12 inches (30 cm) above the base flood level or a replacement home (replaced due to substantial damage) on that site shall be elevated so the underside of the floor is 12 inches (30 cm) above the base flood level.

(2) If manufactured dwelling parks, mobile home parks, combination parks and subdivisions were established after the local jurisdiction's entry into the National Flood Insurance Program:

(A) Manufactured dwellings and cabanas shall be installed so the underside of the floor is 12 inches (30 cm) above base flood level.

(d) **Underfloor Enclosures.** Notwithstanding Section 803, manufactured dwellings and cabanas installed in designated flood hazard areas shall have the underfloor enclosure vents located within 12 inches (30 cm) vertically of the finished grade.

(e) Basements under manufactured dwellings in flood hazard areas shall comply with the flood proofing requirements of **Section 302.3 of the Oregon One and Two Family Dwelling Specialty Code.**

SECTION 309
EGRESS REQUIREMENTS

(a) **Egress.** Upon completion of the installation, each manufactured dwelling shall conform with the following requirements:

(1) Each required egress door on a manufactured dwelling shall be accessible by steps, temporary steps, or ramps or have door thresholds within 8 inches (20 cm) of grade;

(2) Windows and doors shall be adjusted, secured in place, and made operational to provide security, egress and minimize air leakage and water penetration;

(3) Damage to windows and doors which affects their safety, thermal performance or operation shall be repaired or replaced; and

(4) Each manufactured dwelling and cabana shall have underfloor access provided and constructed according to Section 804 of this standard.

(b) **Inspection Approval.** Installations shall not be approved until a means of access has been provided to each of the two required exit doors on the manufactured dwelling.

(c) **Temporary Steps.** Temporary steps may be provided by the home owner, manufacturer, distributor, dealer or installer and may be used without the required landing provided the temporary steps are: (See Figure 309.1):

(1) Constructed with a minimum 30 inch (76 cm) width, maximum 48 inch (1.22 meters) height, with an 8 inch (20 cm) maximum tread rise and a minimum 9 inch (23 cm) tread run;

(2) Constructed and cross braced with Number 2 or better grade board lumber;

(3) Provided with a handrail on one side a minimum of 30 inches (76 cm) and maximum of 34 inches (86 cm) above the stair tread when there are three or more risers;

(4) Supported on a minimum of four 256 square inch (1,652 square centimeters) footings, as described in Section 303(a) of this standard, and shimmed to prevent movement;

(5) Identified "temporary" in 2 inch (5 cm) high letters by paint, label, decal or stencil;

(6) Provided with a top step not more than 8-1/2 inches (21.59 cm) below the door threshold; and

(7) Replaced with permanent steps or ramps within 30 days of the initial occupancy and before the finish inspection.

(d) **Construction.** Except for temporary steps, all ramps, steps, stairways, railings, decks porches and landings shall be constructed and installed according to Chapter 8 of this standard.

Federal Emergency Management Agency
Region X
130 228th Street, Southwest
Bothell, WA 98021-9796

April 24, 1997

The Honorable Cindy Weeldreyer
Chairperson, Lane County
Board of Commissioners
125 East 8th Street
Eugene, Oregon 97401

Dear Ms. Weeldreyer:

This letter concludes our evaluation of Lane County's floodplain management program and eligibility for the National Flood Insurance Program (NFIP), based on our Community Assistance Visit on April 9, 1997. The County has provided sufficient documentation to address all issues identified during our visit.

One minor discrepancy was found in the County's floodplain ordinance. The County needs to ensure that the Lane Code requires subdivisions to have public facilities and services located and constructed to minimize flood damage. This language is found in Section 16.244 (7)(a)(iv)(bb), Unnumbered A Zones, but not in Section 16.244 (7)(b)(ix), Numbered Zones A1-30, AH, AE, AO. If such language cannot be found in the current code, please amend your code to reflect such language at the earliest convenient time. This language is required in order to participate in the Community Rating System (CRS).

The CRS recognizes communities that are exceeding the minimum requirements of the NFIP and promote sound floodplain management. By participating in the CRS, the community receives discounts in their flood insurance premiums. These discounts could be as much as 45 percent.

With the proviso that the Lane Code will reflect such language mentioned above, FEMA finds Lane County eligible for continued participation in the NFIP. Additionally, FEMA recommends Lane County for participation in the CRS. Lane County certainly does more than meet the minimum requirements of the NFIP to help their citizens prevent or reduce flood losses and should be justly rewarded through the CRS.

If you have any questions, please feel free to call me at (206) 487-4682.

Sincerely,

Charles L. Steele, Director
Mitigation Division

cc: Jim Kennedy, Department of Land Conservation and Development, Salem
Thom Lanfear, Department of Public Works, Lane County, Eugene
Myra Lee, Office of Emergency Management, Salem

MINUTES

Lane County Planning Commission
Harris Hall—125 East 8th Avenue, Eugene, Oregon

February 17, 1998
6 p.m.

PRESENT: Stephen Moe, Chair, Clay Myers, Vice Chair, Dianne Burch, Fred Beisse, Carrieanne Davis, David Crowell, members; Thom Lanfear, Bill Sage, Kent Howe, Lane County Land Management; Terry Hadig, guest.

ABSENT: Margaret Holemar Thumel, Marion Esty.

Mr. Moe called the meeting of the Lane County Planning Commission (LCPC) Work Session to order at 6 p.m.

WORK SESSION

A. Post-acknowledgment plan amendment process. Goal 5 - Mineral and Aggregate Resources as implemented by OAR 660-23.

Mr. Sage distributed a summary of Rule 5 PAPA (post-acknowledgment plan amendment) Review and Decision Process to familiarize the members with the new regulations and assist in the preparation of application recommendations to the Board of County Commissioners. He explained that the aggregate industry was growing rapidly, with new operators, new locations, and expansions of existing operations. Rule 5 had expanded its scope in the past few years in response to this growth trend. Rule 5 provided for consideration of conflicting uses on the perimeter of a mine, but those have to be dealt with within the process. He stressed the responsibilities that staff and the members had pertaining to aggregate industry issues. He said the discussion of Rule 5 would be confined to general issues, not any pending applications.

Mr. Howe emphasized that Rule 5 was an extremely complex rule, and that the flowchart he distributed was an attempt to simplify and explain the essence of the rule. He said that as an advisory body to the Board of County Commissioners on land use issues, members had an obligation to vote on an application based upon findings of fact in the record that supported that position. Decisions must not be based on personal feelings or whether the development was good or bad. Then the decision would become a political statement, which could be appealed to LUBA and brought back before the board.

Mr. Sage said that evaluating applications would be easier than analyzing the law, since the staff review and the application would be available for examination. He mentioned that unknown answers to member's questions or additional research that needed to be done on the rule would be addressed at the March 3 work session.

Ms. Burch moved, seconded by Mr. Myers, to approve the minutes of December 2, 1997, as submitted. The motion passed, 7:0.

B. Proposed "housekeeping" changes to Lane Code 10.271 and 16.244 to bring County floodplain regulations, affecting manufactured homes, in compliance with the current State Building Code requirements.

Associate Planner Thom Lanfear explained the conflict between Lane Code 10.271 flood plain requirements and the State Manufactured Dwelling Code. He said that, although FEMA standards are lower than the State's code, the County can increase the community rating system points, by complying with State requirements, thereby decreasing insurance costs.

Mr. Lanfear said that the Lane Code 16.244, the subdivision section, does not meet FEMA standards. He explained that the section must be present to qualify for the community rating system this spring. He said Lane County could realize a minimum of a five percent reduction in flood insurance rates up to a maximum of 40 percent, depending on the restrictions put on developments.

Mr. Myers asked if there were any developments pending that would be affected by this change. Mr. Lanfear said none that he knew of. Mr. Lanfear outlined the requirements for putting in a community water system and utilities under this section, as amended. He said that when a code change was required, the matter had to come before the board.

Mr. Moe opened the public hearing, there being no requests to speak, he closed the public hearing.

Mr. Moe asked for potential conflict from members. There were none.

Mr. Moe closed the deliberation.

Mr. Beisse moved, seconded by Mr. Myers, that the proposed changes to Lane Code 10.271 and 16.244 be adopted. The motion passed 7:0.

Mr. Beisse requested staff to make sure that the water district access was included on the site review checklist for the Roberts' facility re-zoning application. He requested the minutes be amended to reflect this change.

Mr. Lanfear polled the members who were present on February 3, for the consensus on the Roberts' application. Mr. Howe said that since it was a recommendation, staff could take the direction without the vote of the fifth member.

The meeting adjourned at 7:30 p.m.

(Recorded by Nancy Hafner)
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