



Oregon

Theodore R. Kulongoski, Governor

Department of Land Conservation and Development

635 Capitol Street, Suite 150

Salem, OR 97301-2540

(503) 373-0050

Fax (503) 378-5518

www.lcd.state.or.us

NOTICE OF ADOPTED AMENDMENT

June 19, 2008



TO: Subscribers to Notice of Adopted Plan
or Land Use Regulation Amendments

FROM: Mara Ulloa, Plan Amendment Program Specialist

SUBJECT: Clackamas County Plan Amendment
DLCD File Number 001-08

The Department of Land Conservation and Development (DLCD) received the attached notice of adoption. A copy of the adopted plan amendment is available for review at the DLCD office in Salem and the local government office.

Appeal Procedures*

DLCD ACKNOWLEDGMENT or DEADLINE TO APPEAL: July 7, 2008

This amendment was submitted to DLCD for review 45 days prior to adoption. Pursuant to ORS 197.830 (2)(b) only persons who participated in the local government proceedings leading to adoption of the amendment are eligible to appeal this decision to the Land Use Board of Appeals (LUBA).

If you wish to appeal, you must file a notice of intent to appeal with the Land Use Board of Appeals (LUBA) no later than 21 days from the date the decision was mailed to you by the local government. If you have questions, check with the local government to determine the appeal deadline. Copies of the notice of intent to appeal must be served upon the local government and others who received written notice of the final decision from the local government. The notice of intent to appeal must be served and filed in the form and manner prescribed by LUBA, (OAR Chapter 661, Division 10). Please call LUBA at 503-373-1265, if you have questions about appeal procedures.

***NOTE: THE APPEAL DEADLINE IS BASED UPON THE DATE THE DECISION WAS MAILED BY LOCAL GOVERNMENT. A DECISION MAY HAVE BEEN MAILED TO YOU ON A DIFFERENT DATE THAN IT WAS MAILED TO DLCD. AS A RESULT YOUR APPEAL DEADLINE MAY BE EARLIER THAN THE ABOVE DATE SPECIFIED.**

Cc: Doug White, DLCD Community Services Specialist
Christine Shirley, FEMA Specialist
Steve Hanschka, Clackamas County

<paa> ya

FORM 2

DEPT OF

DLCD NOTICE OF ADOPTION

This form must be mailed to DLCD within 5 working days after the final decision
per ORS 197.610, OAR Chapter 660 - Division 18

JUN 13 2008

(See reverse side for submittal requirements)

LAND CONSERVATION
AND DEVELOPMENT

Jurisdiction: CLACKAMAS COUNTY Local File No.: 200-215
(If no number, use none)

Date of Adoption: 6-5-08 Date Mailed: 6-10-08
(Must be filled in) (Date mailed or sent to DLCD)

Date the Notice of Proposed Amendment was mailed to DLCD: 2-1-08

- | | |
|---|---|
| <input checked="" type="checkbox"/> Comprehensive Plan Text Amendment | <input type="checkbox"/> Comprehensive Plan Map Amendment |
| <input checked="" type="checkbox"/> Land Use Regulation Amendment | <input type="checkbox"/> Zoning Map Amendment |
| <input type="checkbox"/> New Land Use Regulation | <input type="checkbox"/> Other: _____ |

(Please Specify Type of Action)

Summarize the adopted amendment. Do not use technical terms. Do not write "See Attached."

Amendments to floodplain ordinance to adopt DFIRMs, adopt below-grade crawlspace language, along with general enhancement and clarification of floodplain ordinance.

Describe how the adopted amendment differs from the proposed amendment. If it is the same, write "Same." If you did not give notice for the proposed amendment, write "N/A."

SAME

Plan Map Changed from: NA to _____

Zone Map Changed from: NA to _____

Location: Floodplain Management District Acres Involved: 20,000 +/-

Specify Density: Previous: NA New: _____

Applicable Statewide Planning Goals: 1, 2, 5, 6, 7

Was an Exception Adopted? Yes: _____ No:

DLCD File No.: 001-08 (16693)

Did the Department of Land Conservation and Development receive a notice of Proposed Amendment **FORTY FIVE (45) days prior to the first evidentiary hearing**. Yes: No:

If no, do the Statewide Planning Goals apply. Yes: No:

If no, did The Emergency Circumstances Require immediate adoption. Yes: No:

Affected State or Federal Agencies, Local Governments or Special Districts: FEMA, ODFW, DLCD, USACOE, CLACKAMAS COUNTY, WBS, OLSD

Local Contact: STEVE HANSCHKA Area Code + Phone Number: 503-353-4512

Address: 9101 SE SUNNY BROOK BLVD. City: CLACKAMAS

Zip Code+4: 97015-6612 Email Address: stevehan@co.clackamas.or.us

ADOPTION SUBMITTAL REQUIREMENTS

This form must be mailed to DLCD within 5 working days after the final decision
per ORS 197.610, OAR Chapter 660 - Division 18.

1. Send this Form and TWO (2) Copies of the Adopted Amendment to:

**ATTENTION: PLAN AMENDMENT SPECIALIST
DEPARTMENT OF LAND CONSERVATION AND DEVELOPMENT
635 CAPITOL STREET NE, SUITE 150
SALEM, OREGON 97301-2540**

2. Submit **TWO (2) copies** the adopted material, if copies are bounded please submit **TWO (2) complete copies** of documents and maps.
3. Please Note: Adopted materials must be sent to DLCD not later than **FIVE (5) working days** following the date of the final decision on the amendment.
4. Submittal of this Notice of Adoption must include the text of the amendment plus adopted findings and supplementary information.
5. The deadline to appeal will not be extended if you submit this notice of adoption within five working days of the final decision. Appeals to LUBA may be filed within **TWENTY-ONE (21) days** of the date, the "Notice of Adoption" is sent to DLCD.
6. In addition to sending the "Notice of Adoption" to DLCD, you must notify persons who participated in the local hearing and requested notice of the final decision.
7. **Need More Copies?** You can copy this form on to 8-1/2x11 green paper only; or call the DLCD Office at (503) 373-0050; or Fax your request to: (503) 378-5518; or Email your request to Larry.French@state.or.us - **ATTENTION: PLAN AMENDMENT SPECIALIST.**

**BEFORE THE BOARD OF COUNTY COMMISSIONERS
OF CLACKAMAS COUNTY, STATE OF OREGON**

In the Matter of Amendments to
the Zoning and Development
Ordinance: ZDO-215



ORDER NO.
(Page 1 of 2)

2008-68

This matter coming regularly before the Board of County Commissioners and it appearing that the County Planning Division Staff has proposed an amendment to the Zoning and Development Ordinance; and

Whereas, it is necessary to revise the Floodplain Management District of the Zoning and Development Ordinance to meet federal requirements; to streamline the approval process for fish enhancement projects that are sponsored or approved by a state or federal agency; to clarify, update and enhance the County's floodplain development standards; and to make housekeeping changes; and

Whereas, the amendments are consistent with the Statewide Planning Goals and Guidelines and the Metro Urban Growth Management Functional Plan; and

It further appearing that the Planning Commission, upon considering ZDO-215 at a public hearing held on March 24, 2008, recommended approval of the amendments, and

It further appearing that after appropriate notice, public hearings were held before the Board of County Commissioners in the Board of County Commissioners Hearing Room, 2051 Kaen Rd., Oregon City, Oregon on April 30, 2008 and on May 14, 2008, during which an opportunity to provide testimony and evidence was given; and

**BEFORE THE BOARD OF COUNTY COMMISSIONERS
OF CLACKAMAS COUNTY, STATE OF OREGON**

In the Matter of Amendments to
the Zoning and Development
Ordinance: ZDO-215

}

ORDER NO. 2008-68
(Page 2 of 2)


It further appearing that, after careful consideration of the proposed amendments, the Board of County Commissioners approved the Planning Commission's recommended amendments; and

Based upon the record, this Board finds that the proposed amendments are in the best interest of the citizens of Clackamas County.

NOW, THEREFORE, IT IS HEREBY ORDERED that amendments to the text of the Zoning and Development Ordinance are adopted as shown on Exhibit A and shall become effective on June 17, 2008.

ADOPTED this 5th day of June, 2008

BOARD OF COUNTY COMMISSIONERS



LYNN PETERSON, CHAIR



RECORDING SECRETARY

2008-68

ZDO-215
Proposed Zoning and Development Ordinance Amendment
Draft Dated 4/30/08

Text to be deleted is ~~struck~~. Text to be added is underlined.

703 FLOODPLAIN MANAGEMENT DISTRICT (FMD) ~~(7/29/99)~~

703.01 FINDINGS OF FACT/PURPOSE/DISCLAIMER

~~A. Findings~~

A Floodplain Management District (FMD) is needed for the following reasons:

A. 1. Flood Losses Resulting from Periodic Inundation: The flood hazard areas of ~~the~~ Clackamas County are subject to periodic inundation ~~which that~~ results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the County's tax base, all of which adversely affect the public health, safety, and general welfare.

B. 2. General Causes of These Flood Losses: Flood losses are caused by ~~the~~ following:

1. a. The cumulative effect of obstruction in floodways causing increase in flood heights and velocities, and

2. b. The occupancy of flood hazard areas by uses vulnerable to floods or hazardous to others ~~which that~~ are inadequately elevated or otherwise unprotected from flood damages.

703.02 PURPOSE

~~B. Purpose~~

~~It is the purpose of~~ This section of the Zoning Ordinance is adopted to promote the public health, safety, and general welfare, and to minimize flood losses with provisions designed to:

A. 1. Restrict or prohibit uses ~~which that~~ are dangerous to health, safety, or property in times of flooding or ~~which that~~ cause increased flood heights or velocities;

Ex. A

- B. ~~2.~~—Require that uses vulnerable to floods, including public facilities ~~which~~ that serve such uses, be provided with flood protection at the time of initial construction;
- C. ~~3.~~—Protect individuals, as much as possible, from buying lands ~~which~~ that are not suitable for intended purposes because of flood hazard; and
- D. ~~4.~~—Minimize the need for rescue and relief efforts associated with flooding undertaken at the expense of the general public. (6/3/87)

703.03 WARNING AND DISCLAIMER OF LIABILITY

~~C.~~—Warning and Disclaimer of Liability

The degree of flood protection required by ~~the FMD~~ this district is considered reasonable for regulatory purposes and is based on engineering and scientific study. Larger floods may occur on rare occasions, or the flood height may be increased by manmade or natural causes, such as ice jams and/or bridge openings restricted by debris. This ~~section~~ ordinance does not imply that areas outside the ~~FMD~~ Floodplain Management District boundaries or land uses permitted within ~~such as the FMD~~ this district will be free from flooding or flood damages. This section of the ~~Zoning Ordinance~~ shall not create liability on the part of ~~the Clackamas County~~, or any officer or employee thereof, for any flood damages that result from reliance on ~~the~~ this FMD district or any administrative decision lawfully made thereunder.

703.04 703.02—AREA OF APPLICATION/ADOPTION OF FLOOD MAPS

~~This district is applied to those areas which are subject to periodic flooding from stream flows by a regulatory flood. This district shall apply to those areas of Clackamas County where studies have been prepared by a competent agency concerned with such studies, such as the Federal Emergency Management Agency, the U.S. Army Corps of Engineers, the Soil Conservation Service, or the Clackamas County Department of Transportation and Development. (6/3/87)~~

~~A.~~—Adoption of Report and Maps

~~The FMD is applied to~~ The areas of special flood hazard area (SFHA), identified by the Federal Insurance Administration in a scientific and engineering report entitled, “The Flood Insurance Study for Clackamas County, Oregon & Incorporated Areas (unincorporated areas),” (FIS) dated ~~June 17, 2008~~, September 30, 1988 with accompanying Flood Insurance Rate Maps (FIRMs) ~~and Flood Boundary Floodway Maps.~~

- A. The FIS and FIRMs are hereby adopted by reference and declared to be a part of this section ordinance. The flood Insurance Study is and are on file at

the Clackamas County Department of Transportation and Development.
(7/29/99)

~~B. Working Classifications~~

~~Within the Floodplain Management District, four (4) subclassifications are established for areas of special flood hazard: Floodway (FW), Flood Fringe (FF), Flood Hazard (FH), and Flood Prone (FP), and these subclassifications are defined in subsection 703.03.~~

~~C. Interpretation of Flood Insurance Study Map Boundaries~~

~~B. The Planning Director, or designate, shall make interpretations where needed, as to the exact location of the boundaries of the areas of special flood hazard SFHA (for example, where there appears to be a conflict between a mapped boundary and actual field conditions, topography and/or elevations). In areas where base flood elevation data have been provided, the Planning Director may require the applicant to submit an elevation certificate to determine whether the proposed development is located in the SFHA. To most precisely determine the base flood elevation of the subject area, the elevations provided by the FIS flood profiles in combination with the cross section lines on the FIRM shall supersede the base flood elevation lines and values identified on the FIRM. A person contesting the location of the boundary shall be given a reasonable opportunity to request review of the interpretation as provided in Section 1300 of the Zoning and Development Ordinance.~~

~~703.05 703.03~~ — DEFINITIONS

~~Unless specifically defined below, words or phrases used in this section classification shall be interpreted to give them the same meaning as they have in common usage and to give this section classification its most reasonable application. This list is arranged alphabetically. (7/29/99)~~

~~A. Accessory Use or Structure: A use or structure on the same lot with, and of a nature customarily incidental and subordinate to, the principal use or structure.~~

~~B. Area of Special Flood Hazard: An area determined by detailed or approximate studies to be in a 100-year floodplain. For the purposes of this Ordinance, the "area of special flood hazard" includes the floodway, flood fringe, flood hazard, and flood prone areas.~~

~~A. Base Flood: The flood having a one percent chance of being equaled or exceeded in any given year. Also known as the "regulatory flood," or the "100-year flood," the base flood is the national standard used by the National Flood Insurance Program and all federal agencies for the purposes of requiring the purchase of flood insurance and regulating new development.~~

- B. Base Flood Elevation: The computed elevation to which floodwater is anticipated to rise during the base flood. Base flood elevations are shown on Flood Insurance Rate Maps and on the flood profiles included in the Flood Insurance Study.
- C. Basement: Any area of a building that has its floor below ground level on all sides.
- D. Below-Grade Crawl Space: An enclosed area below the base flood elevation — which is in nearly all cases considered by the National Flood Insurance Program to also be a basement — that generally serves as the foundation for a structure and exhibits the following characteristics:
1. All sides of the crawl space are below the adjacent exterior grades outside the crawl space;
 2. The interior grade inside the crawl space is not more than two feet below the lowest adjacent exterior grade; and
 3. The height, measured from the interior grade of the crawl space to the top of the crawl space foundation, does not exceed four feet at any point.
- E. Community Rating System: A program of the National Flood Insurance Program (NFIP) that recognizes jurisdictions for implementing floodplain management practices and standards that exceed NFIP minimum requirements. Membership in the program results in increased public safety and property protection, along with reductions in flood insurance premiums.
- F. Conditional Letter of Map Revision: The Federal Emergency Management Agency's (FEMA's) comment on a proposed project that would, upon construction, affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodway, the effective base flood elevations, or the special flood hazard area. The letter does not revise an effective National Flood Insurance Program map, but it indicates whether the project, if built as proposed, would be recognized by FEMA.
- G. Cross Section: A source of data that is developed during the hydraulic analyses of a stream in the course of producing the Flood Insurance Rate Maps (FIRMs) and the Flood Insurance Study (FIS). Cross sections provide an elevation view of the floodplain taken perpendicular to the flow at specific points and are typically determined using field survey information and topographic maps. Some of the locations of cross sections are shown on the FIRMs and are, in turn, cross-referenced in the FIS, where they provide precise information about a variety of data that relates to flood conditions.
- HC. Development: Any manmade change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging,

filling, grading, paving, excavation, or drilling operations, or storage of equipment or materials located within the area of special flood hazard. For purposes of Section 703, Development does not include those activities of a type and magnitude which that cause have no potential effects on water surface elevations, no effects or on the level of insurable damages, and no adverse impacts to upstream or downstream properties, as determined by the Planning Director or designate, based on documentation supplied by the applicant.

- I. Elevation Certificate: A form produced by the Federal Emergency Management Agency (FEMA) that is completed by a professional engineer, licensed architect, or licensed surveyor, usually through field survey work, that reports elevation information about grades, structures, and other facilities. An elevation certificate is used to determine the relationship of grades, structures, and other facilities to the base flood elevation. It is also used to certify building elevations to ensure compliance with community floodplain regulations; determine proper insurance rates; and support a Letter of Map Amendment or Letter of Map Revision Based on Fill. Communities that participate in the Community Rating System are required to use an elevation certificate for all official reporting and recordkeeping of elevations.

- J. Encroachments: Activities or construction within the floodway, including fill, new construction, substantial improvements, and other development.

- K. Federal Emergency Management Agency (FEMA): A federal agency, whose primary mission is to reduce the loss of life and property and protect the nation from all hazards, including natural disasters, acts of terrorism, and other manmade disasters, by leading and supporting the nation in a risk-based, comprehensive emergency management system of preparedness, protection, response, recovery, and mitigation. Among other things, FEMA manages and oversees the National Flood Insurance Program.

- LD. Flood: A temporary rise in stream flow or stage that results in water overflowing the streambed and inundating adjacent land. A general and temporary condition of partial or complete inundation of normally dry land area from:
 - 1. The overflow of inland or tidal waters; and/or
 - 2. The unusual and rapid accumulation of runoff of surface waters from any source. (6/3/87)

- ME. Flood Fringe Area Subclassification: In areas where base flood elevation data have been provided and floodways have been established, the flood fringe area is the portion of the special flood hazard that land area which that is outside of the stream's floodway, but is subject to periodic inundation by the regulatory flood.

- NF. Flood Hazard Area Subclassification: The portion of the special flood hazard area is an area which is subject to periodic inundation from regulatory flood stream flows and in which where flood elevations are available but the floodway has not been defined.
- OG. Flood Insurance Rate Map (FIRM): The official map on which the Federal Insurance Administration has delineated both the areas of special flood hazard area and the risk premium zones applicable to the community.
- PH. Flood Insurance Study: The official report provided by the Federal Insurance Administration that includes flood profiles, the Flood Insurance Rate Maps Flood Boundary Floodway Map, and the water surface elevations of the base flood.
- Q. Flood Profile: A graph, found in the Flood Insurance Study, of computed flood elevations at floodplain cross sections that is typically available for a stream that has base flood elevations shown on the Flood Insurance Rate Map (FIRM). Elevations provided by the flood profiles, used in combination with the cross section lines on the FIRM, are the most accurate means of determining the base flood elevation at a particular site.
- I. Floodplain: The area is an area which is subject to periodic inundation from regulatory flood stream flows, and elevations are available and the floodway and flood fringe have been determined. (7/29/99)
- RJ. Flood Prone Area Subclassification: The portion of the special flood hazard area flood-prone area is that land which that has been determined by approximate methods and, consequently, to be an area of special flood hazard for which base flood elevation data are not available.
- S. Floodplain: Land area that is adjacent to rivers and streams and is subject to periodic and recurring inundation by floodwaters.
- TK. Floodp-Proofing: A combination of structural provisions, changes, or adjustments to properties and structures subject to flooding primarily for the reduction or elimination of flood damages to properties, water and sanitary facilities, structures, and contents of buildings in a flood hazard area.
- UL. Floodway Subclassification: The channel of the river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one (1)-foot, often referred to as the "regulatory floodway."
- Habitable Floor: Definition deleted under ZDO-53A. (1/6/88)
- V. Hydraulic Shadow: The area that is upstream and downstream of an existing structure or other obstruction, where the water is essentially stagnant due to

water flowing around the structure or obstruction, as defined on pages 1-3 of the June 2001 *Hydraulic Shadow Computations* document, on file at the County Department of Transportation and Development.

- W. Letter of Map Amendment (LOMA): An official amendment, by letter from the Federal Emergency Management Agency, to an effective National Flood Insurance Program map. A LOMA establishes a property's location in relation to the special flood hazard area. LOMAs usually are issued because a property has been inadvertently mapped as being in the floodplain, but is actually on natural high ground above the base flood elevation.
- X. Letter of Map Revision (LOMR): The Federal Emergency Management Agency's modification to an effective Flood Insurance Rate Map (FIRM). LOMRs generally are based on the implementation of physical measures that affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodway, the effective base flood elevations, or the special flood hazard area. The LOMR officially revises the FIRM, and sometimes the Flood Insurance Study (FIS) report, and when appropriate, includes a description of the modifications. The LOMR generally is accompanied by an annotated copy of the affected portions of the FIRM or FIS report.
- Y. Letter of Map Revision Based on Fill: The Federal Emergency Management Agency's modification of the special flood hazard area shown on the Flood Insurance Rate Map based on the placement of fill outside the existing regulatory floodway.
- Z. Lowest Construction Elements: The lowest flooring system of a structure that consists of repeated structural members, spaced 24 inches or less on center.
- AAM. Lowest Floor: The lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access, or storage, in an area other than a basement-area, is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of Subsection 703.1109(A)(1) of this Ordinance. (6/3/87)
- BBN. Manufactured Home: A structure, transportable in one or more sections, which that is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. For floodplain management purposes, the term "manufactured home" also includes park trailers, travel trailers, and other similar vehicles placed on a site for greater than 180 consecutive days. (6/3/87)
- CC. National Flood Insurance Program (NFIP): A federal program that is administered by the Federal Emergency Management Agency that is designed to reduce the loss of life, damage to property, and rising disaster relief costs,

both within and beyond the special flood hazard area. The NFIP makes federally backed flood insurance available to communities that agree to adopt and enforce floodplain management ordinances that meet or exceed NFIP requirements.

- DDØ. New Construction: Structures for which the "start of construction" commenced on or after the effective date of this section Ordinance.
- EE. "No-Rise" Certification: A certification that is provided by a professional engineer or licensed architect that demonstrates through accompanying hydrologic and hydraulic analyses, performed in accordance with standard engineering practice and National Flood Insurance Program rules and regulations, that an encroachment within the floodway will not result in any increase in the flood levels during the regulatory flood discharge. The supporting technical data should be based on the standard step-backwater computer model used to develop the 100-year floodway shown on the Flood Insurance Rate Map.
- FFP. Obstruction: Any dam, wall, wharf, embankment, levee, dike, pile, abutment, projection, excavation, channel, rectification, bridge, conduit, culvert, building, wire, fence, rock, gravel, refuse, fill, structure, or matter in, along, across, or projected into any channel, watercourse, or regulatory flood hazard area ~~which~~ that may impede, retard, or change the direction of the flow of water, either in itself or by catching or collecting debris carried by such water, or that is placed where it might be carried downstream by the flow of water resulting in damage to life or property.
- Q. ~~Person: Any individual or group of individuals, corporation, partnership, association or any other entity, including state and local governments and agencies.~~
- GG. Pre-FIRM Structure: A structure that was built before March 1, 1978, the effective date of the first Flood Insurance Rate Map (FIRM) for the County, and hence, prior to the date when detailed flood hazard data and flood elevations were provided to the County.
- HH. Post-FIRM Structure: A structure that was built on or after March 1, 1978, the effective date of the first Flood Insurance Rate Map (FIRM) for the County.
- R. ~~Reach: A hydraulic engineering term to describe longitudinal segments of a stream or river.~~
- IIS. Recreational Vehicle: A vehicle ~~which~~ that is: (7/29/99)
1. Built on a single chassis;
 2. 400 square feet or less when measured at the largest horizontal projection;

3. Designed to be self-propelled or permanently towable by a light duty truck; and
4. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

~~T. Regulatory Flood, Base Flood: The regulatory flood, also referred to as base flood, is a flood which is representative of large floods known to have occurred generally in the area and reasonably characteristic of what can be expected to occur on a particular stream. The regulatory flood, for the purpose of this section of the Ordinance, generally has an average frequency in the order of the 100-year recurrence interval flood determined from an analysis of floods on a particular stream and other streams in the same general region.~~

~~JJU. Regulatory Flood Protection Elevation: The elevation to which uses regulated by the FMD this district are required to be elevated or flood-proofed. This elevation is one (1) foot above the regulatory flood elevation.~~

~~KK. Shallow Flooding Area: The portion of the special hazard area with average flood depths of one to three feet that usually exhibit sheet flow on sloping terrain. For areas of alluvial fan flooding, velocities are also determined.~~

~~LL. Special Flood Hazard Area: (SFHA): The land area covered by the floodwaters of the base flood on National Flood Insurance Program (NFIP) maps and, thus, the area determined by detailed or approximate studies to be in a 100-year floodplain. The SFHA is subject to the NFIP's floodplain management regulations and the mandatory purchase of flood insurance. The SFHA includes the floodway, flood fringe, flood hazard, flood prone, and shallow flooding areas.~~

~~MMV. Start of Construction: Includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundation or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of the building.~~

whether or not that alteration affects the external dimensions of the structure.
 (6/3/87)

NNW. Structure: A walled and roofed building, manufactured home, or a gas or liquid storage tank that is principally above ground. (6/3/87)

OO. Substantial Damage: Any damage of any origin sustained by a pre-FIRM structure, or a structure for which the applicable Flood Insurance Rate Map or the Flood Insurance Study has been updated or revised since the date of construction of the structure, whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred. The market value of the structure before the damage occurred shall be the structure's Real Market Value that is provided by the County Assessor's office. The cost of restoring a structure shall be determined by the County Building Codes Division, pursuant to Subsection R105.3.1.1 of the 2005 Oregon Residential Specialty Code and through subsequent versions of the applicable, adopted Building Code that address substantially damaged structures within the special flood hazard area.

PPX. Substantial Improvement: Any repair, rehabilitation, reconstruction, or improvement — or series of repairs, rehabilitations, reconstruction, or improvements — of a pre-FIRM structure, or a structure for which the applicable Flood Insurance Rate Map or the Flood Insurance Study has been updated or revised since the date of construction of the structure, the cost of which — or cumulative costs of which at the time of the most recent repair, rehabilitation, reconstruction, or improvement — equals or exceeds fifty (50) percent of the market value of the structure. The market value of the structure shall be determined at the time of the most recent repair, rehabilitation, reconstruction, or improvement, either: (7/29/99)

1.—bBefore the improvement or repair is started, or

2.—iIf the structure has been damaged and is being restored, before the damage occurred. The market value of the structure shall be the structure's Real Market Value that is provided by the County Assessor's office. The cost of repair, rehabilitation, reconstruction, or improvement of a structure, or series thereof, shall be determined by the County Building Codes Division, pursuant to Subsection R105.3.1.1 of the 2005 Oregon Residential Specialty Code and through subsequent versions of the applicable, adopted Building Code that address substantially improved buildings within the special flood hazard area. For the purposes of this definition, "Substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the structurebuilding commences, whether or not that alteration affects the external dimensions of for the structure.

Substantial improvement~~The term does not, however, include either:~~

1. Any project ~~for improvement of~~ to improve a structure to correct existing violations of state or local health, sanitary, or safety code specifications provided such violations~~which~~ have been identified by the local code enforcement official and the project is~~which~~ are the minimum necessary to assure safe living conditions; or (7/29/99)
2. Any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places. (7/29/99)

OO. Wet Floodproofing: Permanent or contingent measures that are applied to a structure or its contents that prevent or provide resistance to damage from flooding, while allowing floodwaters to enter the structure or area. Generally, this includes properly anchoring the structure, using flood resistant materials below the base flood elevation and protecting mechanical and utility equipment. Application of wet floodproofing as a flood protection technique under the National Flood Insurance Program is limited to enclosures below elevated residential and non-residential structures and to nonresidential structures that have been issued variances by the County.

703.064 EXEMPT USES PERMITTED IN ALL AREAS OF SPECIAL FLOOD HAZARD

The following uses are exempt from the requirement to obtain a Floodplain Development Permit and from compliance with Subsections 703.10 and 703.11~~The uses listed below may be permitted in all areas of special flood hazard, provided they do not constitute "development" as defined in 703.03C, subject to the requirements of the underlying zoning district.~~

A. Uses that do not constitute development. Examples of uses that may qualify for this exemption include

~~A. Agricultural: Uses such as general farming, pasture, grazing, outdoor plant nurseries, horticulture, viticulture, truck farming, forestry, sod farming, and wild crop harvesting.~~

~~B. Industrial/Commercial: Uses such as loading areas, parking areas, airport landing strips.~~

~~C. Recreational: Private and public recreational uses such as golf courses, tennis courts, driving ranges, archery ranges, picnic grounds, boat launching ramps, swimming areas, parks, wildlife and nature preserves, target ranges, trap and skeet ranges, hunting and fishing areas, and hiking and horseback riding trails.~~

~~D. Residential: Uses such as lawns, gardens, parking areas, and play areas.~~

~~B. Any Repair, rehabilitation, reconstruction, or improvement of a pre-FIRM structure that is not a substantial improvement and where the structure has not sustained substantial damage may be permitted in all areas of Special Flood Hazard. If when the structure is located in the floodway, no and results in an increase in ground coverage shall result, unless:~~

- ~~1. A "no-rise" certification must be provided; or~~
- ~~2. Proof is provided by a professional registered engineer or licensed architect that the area within which the increase in ground coverage is proposed lies within the hydraulic shadow along with engineering data that demonstrates the structure will not result in any increase in the flood levels during the Regulatory Flood discharge. (7/29/99)~~

~~Such structures that result in an increase in the regulatory flood level during the regulatory flood discharge are prohibited. (7/29/99)~~

~~C. Fish enhancement projects — including stream crossings that are a direct component of such projects — outside of the floodway sponsored or approved by a state or federal agency.~~

703.075 DEVELOPMENT IN THE FLOODWAY USES SUBJECT TO DEVELOPMENT PERMIT REVIEW

~~A. Flood Hazard (FH), Flood Fringe (FF), Flood Prone (FP), and Shallow Flooding (AO) Areas: All uses and development allowed in the underlying district which are not otherwise specifically permitted under 703.04, above, shall be subject to review and approval of a development permit under the procedures and standards of this section. (1/6/88)~~

~~B. Floodway (FW) Subclassification: Development in the floodway is prohibited, except as provided in Subsection 703.06(B), or for the uses listed in this subsection. The following uses are allowed only if permitted in the underlying zoning district and, with the exception of fish enhancement projects, require approval of a Floodplain Development Permit unless it is a use described below, and a certification is provided by a registered engineer or architect along with engineering data that demonstrates the use will not result in any increase in the flood levels during the Regulatory Flood discharge, and the use complies with all other provisions of this section and the underlying district: (7/29/99)~~

~~A. 1. Commercial or industrial development may be allowed when such development that requires a waterfront location (e.g., such as a marina and public boat ramps). A "no-rise" certification shall be provided.~~

- B. 2. Riprap or other structural stream bank protection measures may be allowed if consistent with other provisions in this section. (7/15/81) A "no-rise" certification and the evidence required in Subsection 703.10(J)(2) shall be provided, or the criteria in Subsection 703.10(J)(1) shall be met.
3. Private moorage facilities for personal, noncommercial use, may be allowed if designed to be no larger than necessary to accommodate the use.
- C. 4. Hydroelectric facilities may be allowed when such facilities satisfy the provisions of this section and Section 829. A "no-rise" certification shall be provided; (7/26/82)
- D. Stream crossings, except those that are a direct component of a fish enhancement project sponsored or approved by a state or federal agency, subject to Subsection 703.10(G);
- E. Replacement, substantial improvement, or repair of substantial damage of a structure that was constructed prior to the establishment of, or revisions to, the floodway, subject to the following:
1. The development shall comply with Subsection 1206.05 and the applicable provisions of Subsections 703.10 and 703.11.
 2. Foundations shall be designed by a professional engineer or licensed architect, to the satisfaction of the County Building Codes Division, to withstand the mean velocity of floodwaters in the floodway, as they are listed in the Floodway Data tables of the Flood Insurance Study, and to withstand the scouring forces associated with those floodwater velocities.
 3. If an increase in ground coverage is proposed, the applicant shall provide either a "no-rise" certification or proof by a professional engineer or licensed architect that the area within which the increase in ground coverage is proposed lies within the hydraulic shadow.
- F. Fish enhancement projects — including stream crossings that are a direct component of such projects — sponsored or approved by a state or federal agency, subject to the following:
1. The project shall be reviewed pursuant to Subsection 104.01(A).
 2. The responsible agency shall provide a feasibility analysis and certification, prepared by a qualified professional, that the project is designed to keep any rise in 100-year flood levels as close to zero as practically possible and that no structures shall be impacted by any potential rise.

3. Routine maintenance of the project shall be required in order to sustain conveyance over time, and a long-term maintenance program shall be included in the analysis and certification.

~~703.06 DEVELOPMENT PERMIT APPLICATION REQUIREMENTS~~

~~A development permit shall be obtained before construction or development begins within the Floodplain Management District. The permit shall be for all structures including manufactured homes, and for all other development including fill and other activities as set forth in the definitions. Application for a development permit shall be made on forms furnished by the Planning Division and shall include, but not be limited to: (7/29/99)~~

~~A. Site Plans: Plans drawn to scale, showing elevations of the site; pertinent structure, fill or storage elevations; size, location and spatial arrangement of all proposed and existing structures on the site; and location and elevations of streets, water supply, sanitary facilities, soil types, and other applicable information. (7/29/99)~~

~~B. Building Plans/Technical Data: Specifications for building construction and materials, loads and forces, and effect on soil bearing pressures, erosion control, flood proofing, filling, dredging, grading, channel improvement, storage of materials, water supply, and sanitary facilities. Specifically, the following information is required:~~

- ~~1. Elevation, in relation to mean sea level, of the lowest floor (including basement) of all structures;~~
- ~~2. Elevation, in relation to mean sea level, to which any structure has been flood proofed;~~
- ~~3. Certification by a registered professional engineer or architect that the flood proofing methods for any nonresidential structure meets the flood proofing criteria in Subsection 703.09A2.~~
- ~~4. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.~~

~~703.087 DUTIES OF THE PLANNING DIRECTOR ADMINISTRATION OF THIS SECTION~~

~~Development permit applications shall be reviewed and initially approved or denied by the Planning Director, pursuant to the provisions of Subsection 1305.02, based on the standards and provisions of this section.~~

~~A. Review Procedures/Coordination: Duties and responsibilities of the Planning Director under this section shall include, but not be limited to:~~

~~1. Review of all development permits to determine:~~

~~a. That all permit requirements of this Ordinance have been satisfied.~~

~~b. That all necessary permits have been obtained from those federal, state, or local governmental agencies from which prior approval is required.~~

~~e. If the proposed development is in the floodway. If so, assure that the provisions of Subsection 703.05B are met.~~

~~A. d. The Planning Director shall review Floodplain Development Permits to determine if the proposed development adversely affects the flood carrying capacity of the area of special flood hazard area. For purposes of this subsection, "adversely affects" means that the cumulative effect of the proposed development, when combined with and all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one (1) foot at any point.~~

~~B. 2. Use of Other Base Flood Data: Within the special flood hazard area, when base flood elevation data has not been provided in accordance with Subsection 703.02A or, when more detailed base flood elevation or floodway data is available outside of the adopted Flood Insurance Study (FIS) from a federal, state or other authoritative source — such as preliminary or draft information from a new study that will revise the FIS —, the Planning Director or designate may shall obtain, review, and reasonably utilize any such base flood elevation and floodway data available from a federal, state, or other source, in order to administer Subsections 703.05B and 703.09. When the data pertains to a preliminary or draft FIS in Zone A, the Planning Director is required to reasonably utilize the data, and is allowed discretion in using this data only to the extent that the technical or scientific validity of the data in the draft or preliminary FIS is questioned by a qualified professional.~~

~~3. Obtaining and Maintaining Information:~~

~~C. For all new or substantially improved structures, the Planning Director shall obtain either an elevation certificate or a Federal Emergency Management Agency National Flood Insurance Program Floodproofing Certificate for Non-Residential Structures.~~

1. In either case, the currently effective form shall be used, and it shall be completed in accordance with the accompanying instructions.
 2. The determination regarding which certificate is required shall be made based on the nature of the development consistent with National Flood Insurance Program regulations.
 - a. ~~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. (1/6/88)~~
 - b. ~~For all new or substantially improved flood proofed structures:

 - (1) ~~Verify and record the actual elevation of the lowest floor (in relation to mean sea level), and~~
 - (2) ~~Maintain the flood proofing certifications required in Subsection 703.09A2.~~~~
- D. e. The Planning Director shall maintain for public inspection all records pertaining to the provisions of this section Ordinance.

4. ~~Notification of Alteration of Watercourses:~~

- E. a. The Planning Director shall notify adjacent communities and the State Department of Land Conservation and Development prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration. (6/3/87)
- b. ~~Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood carrying capacity is not diminished.~~

703.09 FLOODPLAIN DEVELOPMENT PERMITS

Except as provided under Subsections 703.06(B) and (C) and 703.07(F), a Floodplain Development Permit (FDP) shall be obtained for development in the FMD. Work that is necessary to protect, repair, maintain, or replace existing structures, utility facilities, roadways, driveways, and stream banks in response to emergencies may be undertaken prior to obtaining an FDP, provided that an FDP is obtained after the emergency has passed.

- A. Submittal Requirements: An application for an FDP shall include the following:

1. A site plan drawn to scale, showing elevations of the site; pertinent structure, fill, or storage elevations; size, location, and spatial arrangement of all proposed and existing structures on the site; and location and elevations of streets, water supply, sanitary facilities, and soil types; and other applicable information;
2. Specifications for building construction and materials, loads and forces, and effect on soil bearing pressures, erosion control, floodproofing, filling, dredging, grading, channel improvement, storage of materials, water supply, and sanitary facilities;
3. A description of the extent to which any watercourse will be altered or relocated as a result of proposed development; and
4. Either an elevation certificate or a Federal Emergency Management Agency National Flood Insurance Program Floodproofing Certificate for Non-Residential Structures.
 - a. In either case, the currently effective form shall be used, and it shall be completed in accordance with the accompanying instructions, and based on construction drawings and proposed site locations of development.
 - b. The determination regarding which certificate is required shall be made based on the nature of the proposed development consistent with National Flood Insurance Program regulations.

B. Factors of Consideration: In reviewing an application for an FDPa development permit, the following factors shall be considered: (4/12/82)

1. The danger to life and property due to increased flood heights or velocities caused by encroachments;-
2. The danger that materials may be swept on to other lands or downstream to the injury of others;-
3. The proposed water supply and sanitation systems and the ability of those systems to prevent disease, contamination, and unsanitary conditions;- (7/29/99)
4. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;-
5. The importance to the community of the service provided by the proposed facility;-
6. The requirements of the facility for a waterfront location;-

7. The availability of alternative locations not subject to flooding for the proposed use;:-
8. The compatibility of the proposed use with existing development and development anticipated in the foreseeable future;:-
9. The relationship of the proposed use to the Comprehensive Plan and floodplain management program for the area;:-
10. The safety of access to property in times of flood for ordinary and emergency vehicles;:-
11. The expected heights, velocity, duration, rate of rise, and sediment transport of the flood-waters expected at the site;:- and
12. ~~Such~~ Other factors ~~that~~ which are relevant to the purpose of this section ~~Ordinance~~.

C. Approval Criteria: The Planning Director may approve an FDP, pursuant to Subsection 1305.02, if the applicant provides evidence substantiating the following:

1. All necessary permits have been obtained from those federal, state, or local governmental agencies from which prior approval is required.
2. If the proposed development is in the floodway, the standards of Subsection 703.07 have been met.
3. If the proposed development includes alteration of a watercourse, maintenance will be provided within the altered or relocated portion of said watercourse so that the flood carrying capacity is not diminished.
4. The proposed development will comply with the applicable provisions of Subsections 703.10 and 703.11.

D. ~~C. Imposition of Conditions of Approval:~~ The County may attach conditions of approval to an FDP if such conditions are deemed necessary to further the purpose of this section. Such conditions may include, but are not limited to:
(4/12/82)

1. Limitations on periods of use and operation;:-
2. Imposition of operation controls, sureties, and deed restrictions;:- and
3. Flood-proofing and other protective measures, such as:
 - a. Installation of watertight doors, bulkheads, and shutters;:-

- b. Reinforcement of walls to resist water pressure;:-
- c. Use of paints, membranes, or mortars to reduce seepage of water through walls;:-
- d. Addition of mass or weight to structures to resist flotation;:-
- e. Installation of pumps to lower water levels in structures;:-
- f. Construction of water supply and waste treatment systems to prevent the entrance of flood-waters;:-
- g. Pumping facilities for subsurface external foundation wall and basement floor pressures;:-
- h. Construction to resist rupture or collapse caused by water pressure or floating debris;:-
- i. Cutoff valves on sewer lines or the elimination of gravity flow basement drains;:- and
- j. Requirements for construction of channel modifications, dikes, levees, and other protective measures.

E. Finalization of an FDP: If a preliminary elevation certificate or floodproofing certificate was required for a structure, a building permit for that structure shall not receive a final approval or certificate of occupancy until the County approves a final elevation certificate or floodproofing certificate that is based on the as-built/finished construction.

703.108 GENERAL STANDARDS

Development in the Floodplain Management District, shall comply with the following standards are required:

A. Anchoring:

- 1. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.
- ~~2. All manufactured homes must likewise be anchored to prevent flotation, collapse, or lateral movement, and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over the top or frame ties to ground anchors.~~
(6/3/87)

B. Construction Materials and Methods, and Utilities

1. The following standards shall apply to below-grade crawl spaces. For more detailed information, refer to FEMA Technical Bulletin 11-01, *Crawlspace Construction for Buildings Located in Special Flood Hazard Areas*. For flood insurance purposes, there is an additional charge that is added to the basic flood insurance policy premium for structures that are built on below-grade crawl spaces.
 - a. The building shall be designed and adequately anchored to resist flotation, collapse, and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy. Hydrostatic loads and the effects of buoyancy can usually be addressed through the openings required by Subsection 703.10(B)(1)(b). Because of hydrodynamic loads, crawl-space construction is prohibited in areas with flood velocities greater than five feet per second unless the design is reviewed by a qualified design professional, such as a professional engineer or licensed architect. Other types of foundations are recommended for these areas.
 - b. The crawl space shall have openings that equalize hydrostatic pressures by allowing the automatic entry and exit of floodwaters. The bottom of each flood vent opening shall be no more than one foot above the lowest adjacent exterior grade.
 - c. Portions of the building below the base flood elevation (BFE) shall be constructed with materials resistant to flood damage. This includes not only the foundation walls of the crawl space used to elevate the building, but also any joists, insulation, or other materials that extend below the BFE. The recommended construction practice is to elevate the bottom of joists and all insulation above BFE.
 - d. Any building utility systems within the crawl space shall be elevated above the BFE or designed so that floodwaters cannot enter or accumulate within the system components during flood conditions. Ductwork, in particular, shall either be placed above the BFE or sealed from floodwaters.
 - e. The interior grade of a crawl space below the BFE shall not be more than two feet below the lowest adjacent exterior grade.
 - f. The height of the below-grade crawl space, measured from the interior grade of the crawl space to the top of the crawl space foundation wall shall not exceed four feet at any point. The height limitation is the maximum allowable unsupported wall height according to the engineering analyses and building code requirements for flood hazard areas.
 - g. There shall be an adequate drainage system that removes floodwaters from the interior area of the crawl space. The enclosed area shall be drained within a reasonable time after a flood event. The type of drainage system will vary because of the site gradient and other

drainage characteristics, such as soil types. Possible options include natural drainage through porous, well-drained soils and drainage systems such as perforated pipes, drainage tiles, or gravel or crushed stone drainage by gravity or mechanical means.

h. The velocity of floodwaters at the site should not exceed five feet per second for any crawl space. For velocities in excess of five feet per second, other foundation types should be used.

2. ~~1.~~All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage, and using methods and practices that minimize flood damage. For more detailed information, refer to November 1999 FEMA Publication 348, *Protecting Building Utilities from Flood Damage*; and FEMA Technical Bulletin 2-93, *Flood-Resistant Materials Requirements*. (1/6/88)

3. New and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.

4. ~~2.~~New and replacement water and sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and/or discharge from the systems into floodwaters.

5. ~~3.~~All equipment, machinery, appliances, and electrical boxes that pertain to ~~e~~Electrical, heating, ventilation, plumbing, and heating and air-conditioning systems and services equipment, as well as outside fuel storage tanks, outside air-conditioning units, and other interior or exterior service facilities, systems, equipment, machinery, and appliances shall be designed and/or otherwise, elevated, floodproofed, and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding. Floodproofed facilities, systems, equipment, machinery, and appliances — except for waterproofed wires and cables, as well as waterproofed and sealed plumbing pipes and other plumbing services — shall be certified as such by a preliminary and final floodproofing certificate. Non-floodproofed facilities, systems, equipment, machinery, and appliances shall be elevated at least two feet above the BFE, except that duct systems may be elevated at least one foot above the BFE. (6/3/87)

6. ~~4.~~Onsite waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

7. ~~5.~~A registered professional engineer or licensed architect shall certify 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 certifications shall be provided to the County. (6/3/87)

C. Substantial Improvement and Substantial Damage: A structure for which a substantial improvement or repair of substantial damage is proposed shall be elevated, retrofitted, upgraded, etc., such that the structure and all of its interior and exterior service facilities, systems, equipment, machinery and appliances shall be brought into compliance with the applicable standards of this section.

DC. Manufactured Homes

1. All ~~m~~Manufactured homes to be placed or substantially improved shall be elevated on a permanent foundation such that the lowest floor is elevated at least two feet above the BFE, or the lowest construction elements are elevated at least 18 inches above the BFE, whichever results in the higher elevation of the lowest floor, of the manufactured home is one (1) foot above the base flood elevation and
2. Manufactured homes shall be anchored to prevent flotation, collapse, or lateral movement, and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors, be securely anchored to an adequately anchored foundation system in accordance with the provisions of Subsection 703.08A2. (6/3/87)
3. Manufactured homes shall be placed pursuant to Section 824, utilizing the applicable designs and guidelines, as approved by the Building Codes Division, of the September 1985 FEMA Publication, *Manufactured Home Installation in Flood Hazard Areas*, or any more recent or replacement publication thereof.

ED. Recreational Vehicles: (7/29/99)

Recreational vehicles placed on sites within the Floodplain Management District shall be:

1. Be ~~L~~Located on the site for fewer than 180 consecutive days; and
2. Be ~~f~~Fully licensed and ready for highway use;
3. Supported on its wheels or a jacking system;
4. ~~is a~~Attached to ~~services on~~ the site only by quick-connect type utilities and security devices; and
5. ~~has~~ Void of any permanently attached additions.

FE. Fill (6/3/87)

1. Any fill or other materials — except those proposed within the interior of, and inside the walls of, a crawl space, foundation, basement or enclosure floor — shall ~~must~~ be shown to have a beneficial purpose and the amount thereof not greater than is necessary to achieve that purpose, as demonstrated by a plan submitted by the applicant ~~owner~~, showing the uses to which the filled land will be put and the final dimensions of the proposed fill or other materials.
2. ~~Such~~ ~~fill~~ or other materials shall be protected against erosion by riprap, vegetative cover, or bulkheading.
3. Structures may be allowed to be constructed on fill and thereby elevated above the BFE, subject to the specific following standards: ~~under 703.09, if the first floor or basement floor is one (1) foot above the base flood elevation. The finished fill shall be at a point no lower than the base flood elevation for the particular area. (1/6/88)~~
 - a. The fill shall be placed such that the lowest adjacent finished grade of the fill to the foundation of the structure is at least two feet above the BFE.
 - b. The lowest portion of the lowest structural support system of the building (i.e., the bottom of slab, bottom of footings, or bottom of any other lowest on-grade or sub-grade supporting member) shall be located at least one foot above the BFE.
 - c. Placement of the fill shall require approval of a grading permit.
 - d. The structure shall be constructed pursuant to the applicable standards of FEMA Technical Bulletin 10-01, *Ensuring That Structures Built on Fill in or near Special Flood Hazard Areas Are Reasonably Safe from Flooding.*
4. All fill placed at or below the ~~BFE~~ base flood elevation shall be balanced with at least an equal amount of material removal either on-site, or from a nearby area at or below the ~~BFE~~ base flood elevation and in the same drainage basin. In addition, the following standards shall apply: (7/29/99)
 - a. Excavation below the level of the seasonal groundwater table shall not be used in balancing fill volumes against excavation volumes; and; (7/29/99)
 - b. The mean annual groundwater level shall be determined by soil morphology, or other available data on groundwater conditions; and (7/29/99)

- c. Balancing of a fill shall occur at the same time as the fill is placed on the development site; ~~and (7/29/99)~~
- d. The site plan required in Subsection 703.096(A)(1) shall identify the area where material is removed from the floodplain to balance fill volumes, including pertinent elevations and volume of fill removed; ~~and (7/29/99)~~
- e. A registered professional engineer or licensed architect shall certify that the amount of material removed balances the amount of fill material; ~~and (7/29/99)~~
- f. A suitable recorded easement or similar legally-binding mechanism, in a form acceptable to County Counsel shall be provided to the Planning Director, indicating that future development of the delineated area where material is removed to balance fill volumes is prohibited, and the delineated area cannot be used in the future as balancing for a fill; ~~and (7/29/99)~~
- g. When the balancing occurs off-site, the application shall also include: (7/29/99)

~~(1)i.~~ Property owner authorization from the owner of the property where the balancing will occur; and (7/29/99)

~~(2)ii.~~ a site plan as described in subsection 703.08E(4), including a legal description of the parcel where the balancing will occur. (7/29/99)

5. The following uses or activities are not subject to the provisions of Subsection 703.108(F)E(4): (7/29/99)

- a. Removal and/or fill necessary to plant new trees or vegetation; (7/29/99)
- b. Removal and/or fill required for the construction of storm-water runoff detention facilities and/or structures; ~~and (7/29/99)~~
- c. Removal and/or fill required for the construction of other facilities such as levees designed specifically to reduce or mitigate flood impacts; ~~(7/29/99)~~

6.G. Stream Crossings, including Bridges and Culverts, and Transportation Projects may be permitted if designed as balanced removal and fill projects, or are designed to not significantly raise the base flood elevation, provided

that: (7/29/99)

1. Stream crossings and transportation projects shall be designed as balanced removal and fill projects, or designed to not raise the BFE.
2. Stream crossings and transportation projects that encroach into the floodway shall obtain a "no-rise" certification, or, if the "no-rise" condition cannot be achieved, shall obtain a Conditional Letter of Map Revision, prior to permitting the work, followed by a Letter of Map Revision after the work has been completed.
3. ~~a. Such projects~~ Stream crossings and transportation projects shall be designed to minimize the area of fill in the area of Special Flood Hazard areas (SFHA) and to minimize erosive water velocities;
(7/29/99)
- ~~b. 4.~~ Stream crossings shall be as close to perpendicular to the stream as practicable; and (7/29/99)
5. ~~e.~~ Stream crossings shall be designed to allow fish passage; and (7/29/99)
6. ~~d.~~ Stream crossings and transportation projects are subject to review and approval pursuant to applicable Federal and State statutes and administrative rules. (7/29/99)

HF. Subdivisions Proposals

1. ~~All Subdivisions proposals~~ shall be consistent with the need to minimize flood damage.
2. ~~All Subdivisions proposals~~ shall have public utilities and facilities, such as sewer, gas, electrical, and water systems, located and constructed to minimize flood damage.
3. ~~All Subdivisions proposals~~ shall have adequate drainage provided to reduce exposure to flood damage.
4. The applicant shall provide base flood elevations for the area of development. Where base flood elevation data have not been provided or are not available from another authorized source, the data shall be provided generated for subdivisions proposals and other proposed developments which that contain at least fifty (50) lots or five (5) acres (whichever is less).

I. Toxic or Hazardous Materials

1. The storage or use of toxic or hazardous materials in conjunction with nonresidential use is prohibited, except as permitted in Subsection 703.10(I)(2).
2. Storage or use of toxic or hazardous materials may be permitted if the applicant demonstrates the following:
 - a. The proposed development requires toxic or hazardous materials for operation.
 - b. An area outside the SFHA is not available to be used for storage or use of toxic or hazardous materials.
 - c. The containers, structures, facilities and machinery that contain, use or process the toxic or hazardous materials shall be elevated:
 - i. A minimum of two feet above the BFE in flood fringe and flood hazard areas;
 - ii. A level to be determined pursuant to Subsection 703.11(C)(1) in flood prone areas; or
 - iii. The depth number specified on the Flood Insurance Rate Map — or a minimum of two feet above the highest adjacent grade if no depth number is specified — in shallow flooding areas.
 - d. The structures that support the containers, structures, facilities, and machinery that contain, use or process the toxic or hazardous materials shall comply with Subsections 703.10(A) and 703.10(B)(2) and (7).

J. Riprap or Other Structural Stream Bank Protection Measures:

1. If riprap or other structural stream bank protection measures are proposed to repair bank damage, bank removal or bank erosion, the following criteria shall be met. For the purpose of this subsection, “pre-existing conditions” are the conditions of the repair area upon which the FIRM(s), Flood Boundary and Floodway Map(s), and FIS(s) were based that were in effect during the period that the bank was damaged, removed and / or eroded, leading up to the proposed repair.
 - a. The measures shall not encroach any further into the stream channel than the pre-existing conditions.
 - b. The measures shall not add any more cubic yards of bank material than was in place in the pre-existing conditions.
 - c. The measures shall not exceed the height of the bank nor protrude above the topography that was in place in the pre-existing conditions.
 - d. The pre-existing conditions shall be demonstrated through some combination of historical and aerial photography, survey and cross-section information, maps or plans, hydrologic and hydraulic modeling, or any other pertinent information.

- e. The applicant shall provide evidence from a professional engineer, with expertise in hydrology, hydraulics, fluvial geomorphology, or hydrogeology, that the proposal complies with Subsections 703.10(J)(1)(a) through (d) and that the proposed stream bank protection measures will cause no adverse impacts to upstream or downstream properties, when compared to impacts of the pre-existing conditions.
- 2. If riprap or other structural stream bank protection measures are proposed for reasons other than to repair bank damage, bank removal or bank erosion, or if the repair exceeds the standards of Subsection 703.10(J)(1), the applicant shall provide evidence from a professional engineer, with expertise in hydrology, hydraulics, fluvial geomorphology, or hydrogeology, that the proposed stream bank protection measures will cause no adverse impacts to upstream or downstream properties.

703.1109 SPECIFIC STANDARDS

A. Flood Fringe (FF) and Floodway Areas:

In flood fringe and floodway areas the Floodplain Management District, where base flood elevation data has been provided and floodways have been established as indicated on the Flood Insurance Rate Map (FIRM) or determined pursuant to Subsection 703.08(B) set forth in Section 703.02 or Section 703.07A2, development shall comply with the following criteria provisions are required:

- 1. Residential Construction: New construction and substantial improvements of any dwelling residential structure shall have the lowest floor, including basement, elevated at least two feet one (1) foot above the base flood elevation (BFE) — or the lowest construction elements elevated at least one foot above the BFE, whichever results in the higher elevation of the lowest floor — except that new or substantially improved manufactured homes shall have the lowest floor, including basement, elevated at least two feet above the BFE, or the lowest construction elements elevated at least 18 inches above the BFE, whichever results in the higher elevation of the lowest floor. 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 shall must either be certified by a registered professional engineer or licensed architect or shall must meet or exceed the following minimum criteria. For more detailed information, refer to FEMA Technical Bulletin 1-93, *Openings in Foundation Walls*.: (6/3/87)
 - a. 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, unless the applicant provides documentation from a professional engineer or licensed architect that a flood vent manufacturer's product can provide less than one square inch of opening for every square foot of enclosed area and still meet National Flood Insurance Program standards. (6/3/87)

- b. The bottom of all openings shall be no higher than one foot above grade. (6/3/87)
- c. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters. (6/3/87)

2. Nonresidential Construction: New construction and substantial improvement of ~~any commercial, industrial and other nonresidential~~ structure shall either have the lowest floor, including basement, elevated one (1) foot above the base flood elevation and satisfy the ~~provisions comply with Subsection under 703.1109(A);(1),~~ or, together with attendant utility and sanitary facilities, shall comply with the following criteria. For more detailed information, refer to FEMA Technical Bulletin 3-93, Non-Residential Floodproofing — Requirements & Certification. (1/6/88)

- a. The structure shall be flood-proofed, so that below the point one foot above so that below the BFE base flood elevation level, the structure is watertight, with walls substantially impermeable to the passage of water. Applicants floodproofing nonresidential structures shall be notified in writing that flood insurance premiums will be based on rates that are one foot below the floodproofed level (e.g. a building floodproofed to one foot above the BFE will be rated as being floodproofed to the BFE). (7/29/99)
- b. The structure shall have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.
- c. A ~~registered~~ professional engineer or licensed architect shall certify 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 certifications shall be provided to the County. (1/6/88)

B. Flood Hazard (FH) Areas:

In flood hazard areas ~~Where elevation data has been provided but floodways~~

have not been established, as indicated on the FIRM or determined pursuant to Subsection 703.08(B), development shall comply with Subsection 703.11(A), above, and shall satisfy the following criteria:

1. The cumulative effect of ~~the~~ any proposed development, when combined with and all other ~~existing~~ anticipated and anticipated ~~existing~~ development, shall not increase the water surface elevation of the base flood more than one (1) foot at any point.
2. Structures
 - a. Whenever possible, structures shall be constructed with the longitudinal axis parallel to the direction of flood flow, ~~and~~
 - b. So far as practical, structures shall be placed approximately on the same flood flow lines as those of adjoining structures.

C. Flood Prone (FP) Areas:

~~Where elevation data are not available in flood prone (FP) areas,~~
development shall comply with the following criteria:

1. applications for building permits shall be reviewed to assure that proposed construction shall be reasonably safe from flooding, and comply with the siting requirements under 703.09B,2, above. The test of reasonableness is a local judgment and includes use of historical data, high water marks, photographs of past flooding, post-flood improvements to the waterway, etc., where available. Failure to elevate the lowest floor to at least two feet above the highest grade may result in higher insurance rates. (1/6/88)
2. Proposed residential construction shall comply with Subsections 703.11(A)(1)(a) through (c). Proposed nonresidential construction, together with attendant utility and sanitary facilities, shall comply with Subsections 703.11(A)(2)(a) through (c). However, the level to which the structure must be elevated or floodproofed shall be determined pursuant to Subsection 703.11(C)(1).
3. Proposed construction shall comply with Subsections 703.11(B)(2) and (3).

D. Shallow Flooding (AO) Areas: (1/6/88)

~~Shallow flooding areas appear on FIRM's as AO zones with depth~~

designations. The base flood depths in these zones range from 1 to 3 feet where a clearly defined channel does not exist, or where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is usually characterized as sheet flow. In shallow flooding these areas, development shall comply with the following criteria provisions apply:

1. New construction and substantial improvements of a dwelling residential structures within AO zones shall comply with Subsections 703.11(A)(1)(a) through (c) and shall have the lowest floor, (including basement), elevated above the highest adjacent grade of the building site, to a minimum of two feet or above the depth number specified on the FIRM, or at least two feet if no depth number is specified shall have the lowest construction elements elevated to a minimum of one foot above the depth number specified on the FIRM, whichever results in the higher elevation of the lowest floor. If no depth number is specified, the lowest floor, or the lowest construction elements, whichever results in the higher elevation of the lowest floor, shall be elevated at least two feet above the highest adjacent grade of the building site.
2. New construction and substantial improvements of a nonresidential structures within AO zones shall either comply with Subsection 703.11(D)(1), or, together with attendant utility and sanitary facilities, shall comply with Subsection 703.11(A)(2)(a) through (c), except that the structure shall be floodproofed to the elevation identified in Subsection 703.11(D)(1):
 - a. Have the lowest floor (including basement) elevated above the highest adjacent grade of the building site, to or above the depth number specified on the FIRM, or at least two feet if no depth number is specified; or
 - b. Together with attendant utility and sanitary facilities, be completely floodproofed to or above that level so that any space below that level is watertight with walls substantially impermeable to the passage of water, and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. If this method is used, compliance shall be certified by a registered professional engineer or architect as provided in section 703.09A.2c.
3. Adequate drainage paths shall be provided around structures on slopes to guide floodwaters around and away from proposed structures.

703.120 EXCEPTIONS TO THE PROVISIONS OF SECTION 703

- A. Approval Criteria: Residential Accessory Structures

~~A development permit shall be required pursuant to Subsection 703.05. If it is determined that the accessory structure may cause significant flood risk, all requirements of Section 703 shall be satisfied. Certain non-residential structures — such as detached garages and storage sheds solely used for parking and limited storage that are no greater than 400 square feet in area, pole barns used for storage of farm machinery and equipment, small garden sheds, and structures used in conjunction with agricultural activities — may be granted an exception from the elevation and floodproofing standards of Subsection 703.11, subject to the following criteria. (For more detailed information, refer to FEMA Technical Bulletin 7-93, *Wet Floodproofing Requirements*.) Otherwise, the applicant need not satisfy the submittal requirements of Subsection 703.06B3 or the specific standards of Subsection 703.09A2, provided that:~~

- ~~1. The floor area of all floors of the accessory structure totals 500 square feet or less.~~
1. The exception is reviewed pursuant to Subsection 703.13, and compliance with the approval criteria of Subsection 703.13(A) is demonstrated.
2. The structure will be wet floodproofed.
3. The structure will not cause significant flood risk.
- ~~2. The accessory structure will not be used for human habitation, and will be utilized primarily for storage or parking.~~
- ~~3. The accessory structure will be designed to have low flood damage potential.~~
- ~~4. The accessory structure will be constructed and placed on the building site so as to offer the minimum resistance to the flow of flood waters.~~
- ~~5. The accessory structure shall be firmly anchored to prevent flotation which may result in damage to other structures.~~
- ~~6. All service facilities, such as electrical and heating equipment associated with the accessory structure, shall be elevated or flood proofed.~~
7. The structure will be constructed with flood-resistant materials that meet the requirements of the County Building Codes Division, up to:
 - a. A minimum of one foot above the BFE in flood fringe and flood hazard areas;
 - b. A level to be determined pursuant to Subsection 703.11(C)(1) in flood prone areas; or

c. The depth number specified on the Flood Insurance Rate Map — or a minimum of two feet above the highest adjacent grade if no depth number is specified — in shallow flooding areas.

8. If the structure will be located in the floodway, the structure will comply with Subsection 703.07.

B. Insurance Consequences:

If an exception is granted for a accessory structures that is accessory to a dwelling built under the provisions of this section and the structure will exceed a value greater than ten (10) percent of the value of the dwelling principal residential structure, the applicant shall be given written notice that substantial increases in insurance rates may result.

703.134 VARIANCES

A. Approval Criteria:

In conjunction with review of a Floodplain Development Permit, the Planning Director may approve permit a variance from the requirements of this Section 703, if the applicant provides evidence substantiating all of the following are demonstrated: (4/12/82)

1. The request is will be consistent with all provisions of Subsection 703.097(B).
2. There is applicant shows good and sufficient cause for the variance.
3. Compliance with the requirements for which the variance is requested of Section 703 would cause an exceptional hardship to the applicant.
4. Approval of the variance would not result in increased flood levels, additional threats to public safety, extraordinary public expense, or a nuisance condition.
5. The variance requested is the minimum necessary, considering the flood hazard, to provide relief.
6. If the proposal is to repair or rehabilitate a historic structure that is listed on the National Register of Historic Places or a State Inventory of Historic Places, the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure, and the variance is the minimum necessary to preserve the historic character and design of the structure.

B. Insurance Consequences:

~~Any applicant to whom~~ If a variance is granted shall be given written notice that the structure will be permitted to be built with that allows the lowest floor elevation of a structure to be built below the regulatory flood protection elevation, the applicant shall be given written notice and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

C. ~~The applicant may appeal to the Hearings Officer a decision of the Planning Division staff as provided under subsection 1305.01K. (7/1/83)~~



Lynn Peterson
Chair

Bill Kennemer
Commissioner

Martha Schrader
Commissioner

BOARD OF COUNTY COMMISSIONERS

PUBLIC SERVICES BUILDING
2051 KAEN ROAD | OREGON CITY, OR 97045

DEPT OF

JUN 13 2008

**LAND CONSERVATION
AND DEVELOPMENT**

CERTIFICATE OF MAILING

I hereby certify that the enclosed Board Order No. 2008-68 was deposited in the mail on June 10, 2008

Signed: _____

Cheryl J. Cornelison, Administrative Assistant
Clackamas County Board of Commissioners
(503) 655-8619

First Class Mail

CLACKAMAS COUNTY

PUBLIC SERVICES BUILDING
OFFICE OF COUNTY COUNSEL
2051 Kaen Road • Oregon City, OR 97045-4035

Plan Amendment Specialist
Dept. of Land Conservation & Development
635 Capitol Street NE, Suite 150
Salem, OR 97301-2540

FIRST CLASS

FIRST CLASS

FIRST CLASS

FIRST CLASS

FIRST CLASS

FIRST CLASS

FIRST CLASS