



# Oregon

Theodore R. Kubongski, 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

11/23/2009

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

**FROM:** Plan Amendment Program Specialist

**SUBJECT:** City of Fairview Plan Amendment  
DLCD File Number 002-09

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:** Friday, December 04, 2009

This amendment was submitted to DLCD for review prior to adoption. with less than the required 45-day notice. 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 THAT IT WAS MAILED TO DLCD. AS A RESULT, YOUR APPEAL DEADLINE MAY BE EARLIER THAN THE ABOVE DATE SPECIFIED.

**Cc:** John Gessner, City of Fairview  
Gloria Gardiner, DLCD Urban Planning Specialist  
Chris Shirley, FEMA Specialist  
Jennifer Donnelly, DLCD Regional Representative

<paa> YA

# 2 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



Jurisdiction: City of Fairview Local file number: Ord. 10-2009

Date of Adoption: 11/4/2009 Date Mailed: 11/13/2009

Date original Notice of Proposed Amendment was mailed to DLCD: 11/4/2009

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

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

Updates City flood regulations to be in compliance with State and NFIP requirements

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: n.a. to: n.a.

Zone Map Changed from: n.a. to: n.a.

Location: citywide Acres Involved: n.a.

Specify Density: Previous: n.a. New: n.a.

Applicable Statewide Planning Goals: 1,7

Was an Exception Adopted?  YES  NO

DLCD File No.: 002-09 (17933) [15829]

Did the Department of Land Conservation and Development receive a Notice of Proposed Amendment.....

Forty-five (45) days prior to first evidentiary hearing?  Yes  No

If no, do the statewide planning goals apply?  Yes  No

If no, did Emergency Circumstances require immediate adoption?  Yes  No

Affected State or Federal Agencies, Local Governments or Special Districts:

**City of Fairview**

Local Contact: **John Gessner** Phone: **(503) 674-6205** Extension:

Address: **1300 NE Village Street** City: **Fairview**

Zip Code + 4: **97024-** Email Address: **gessnerj@ci.fairview.or.u**

### 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 **maru.ulloa@state.or.us** - ATTENTION: PLAN AMENDMENT SPECIALIST.

**City of Fairview, Oregon**  
**ORDINANCE No. 10-2009**

**AN ORDINANCE REPEALING FAIRVIEW MUNICIPAL CODE CHAPTER 16.05 – FLOOD HAZARD AREAS - AND REPLACING IT WITH NEW PROVISIONS IN A NEW CHAPTER 16.05 – FLOOD DAMAGE PREVENTION; DECLARING AN EMERGENCY.**

**WHEREAS**, certain areas of the City are subject to periodic inundations which may result in loss of life and damage to property, disruption of commerce and governmental services, all of which in turn cause extraordinary public expenditures for flood protection and relief.

**WHEREAS**, these flood losses are caused in some measure by the cumulative effect of structures and other obstructions that are located in special flood hazard areas, which structures and other obstructions increase flood height and velocity and when inadequately constructed or secured potentially cause damage in other areas. Further, uses that are inadequately flood-proofed, elevated or otherwise protected from flood damage also contribute to flood losses.

**WHEREAS**, the Federal Emergency Management Agency (FEMA) periodically updates its Flood Insurance Studies and Mapping to incorporate new developments, new data and updated hydraulic modeling for areas subject to flooding and FEMA has done so recently with areas in Multnomah County, including areas inside the City.

**WHEREAS**, the City is required as a condition for property coverage under the Federal Flood Insurance Program, to adopt regulations addressing certain activities involving the construction, location and control of structures located in areas in the City identified by FEMA as being subject to flooding.

**NOW THEREFORE, THE CITY OF FAIRVIEW ORDAINS AS FOLLOWS:**

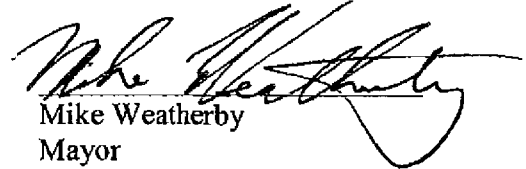
**SECTION 1.** Chapter 16.05 of the Fairview Municipal Code is hereby repealed in its entirety and replaced with a new Chapter 16.05 to read as set out in Exhibit "A".

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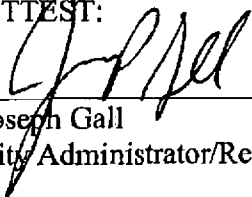
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SECTION 2. In order that the City and its residents and businesses are able to have continuing access to the resources of the Federal Flood Insurance Program, there is an immediate need to enact the foregoing provisions and therefore an emergency is declared. This Ordinance takes effect on the date of passage.

**DULY PASSED BY THE CITY COUNCIL ON THIS 4<sup>th</sup> DAY OF November, 2009.**

  
Mike Weatherby  
Mayor

ATTEST:

  
\_\_\_\_\_  
Joseph Gall  
City Administrator/Recorder

## EXHIBIT "A"

### Chapter 16.05 FLOOD DAMAGE PREVENTION

#### Sections:

<u>16.05.010</u>	Definitions.
<u>16.05.030</u>	General Provisions.
<u>16.05.040</u>	Administration.
<u>16.05.050</u>	Provisions for Flood Hazard Reduction.

#### **Section 16.05.010 Definitions**

Unless specifically defined below, words or phrases used in this Chapter shall be interpreted to give them their meaning in common usage and give these regulations their most reasonable application/scope.

1. "Appeal" means a request for a review of the interpretation of any provision of this ordinance or a request for a variance.
2. "Area of Shallow Flooding" means a designated AO or AH Zone on the Flood Insurance Rate Map (FIRM). The base flood depths range from one to three feet; a clearly defined channel does not exist; the path of flooding is unpredictable and indeterminate; and velocity flow may be evident. AO is characterized as sheet flow and AH indicates ponding.
3. "Area of Special Flooding Hazard" means the land in the flood plain within a community subject to a one percent (1%) or greater chance of flooding in any given year. Designation on maps always includes the letters A or V.
4. "Base Flood" means the flood having a one percent (1%) chance of being equaled or exceeded in any given year, also known as a "100-year flood." Designation on maps always includes the letters A or V.
5. "Basement" means any area of a building having its floor sub-grade below ground level on all sides.
6. "Below-Grade Crawl Space" means an enclosed area below the base flood elevation in which the interior grade is not more than two feet (2') below the lowest adjacent exterior grade and the height - measured from the interior grade of the crawlspace to the top of the crawlspace foundation - does not exceed four feet (4') at any point.

7. "Breakaway Wall" means a wall not part of the structural support of a building and intended through its design and construction to collapse under specific lateral loading forces without causing damage to the elevated portion of the building or supporting foundation system.
8. "City" means the City of Fairview, Oregon.
9. "Council" or "City Council" means the Fairview City Council or such person(s) or entity(ies) designated by that body to perform the appeal or variance review functions given it by the terms of this Chapter.
10. "Critical Facility" means a facility where a slight chance of flooding may be too great. Critical facilities include:
  1. Schools;
  2. Nursing homes;
  3. Hospitals;
  4. Police, fire and other emergency response installations; and
  5. Installations producing, using or storing hazardous materials or waste.
11. "Director" means the City's Community Development Director or designate.
12. "DEQ" means the Oregon Department of Environmental Quality.
13. "Development" means any man-made change to improved or unimproved real property, including:
  1. Buildings or other structures;
  2. Mining operations;
  3. Dredging, filling, grading, paving, excavation;
  4. Drilling operations; or
  5. Storage of equipment or materials located within the area of special flood hazard.
14. "DLCD" means the Oregon Department of Land Conservation and Development.
15. "Elevated Building" means for insurance purposes, a non-basement building which has its lowest elevated floor raised above ground level by foundation walls, shear walls, post, piers, pilings, or columns.
16. "Existing Manufactured Home Park of Subdivision" means a park subdivision where construction of facilities needed for servicing the lots where the manufactured homes are to be affixed is completed before the effective date of the adopted floodplain management regulations, including installation of utilities, construction of streets and either final site grading or the pouring of concrete pads.

17. "Expansion to an Existing Manufactured Home Park or Subdivision" means the preparation of additional sites through construction of facilities for servicing the lots on which the manufactured homes are to be affixed, including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads.
18. "Flood or Flooding" means a general and temporary condition of partial or complete inundation of normally dry land areas 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.
19. "Flood Insurance Rate Map (FIRM)" means the official map on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable.
20. "Flood Insurance Study" means the official report provided by the Federal Insurance Administration that includes flood profiles, the Flood Boundary-Floodway Map and the water surface elevation of the base flood.
21. "Floodway" means the river channel or other watercourse and adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot (1').
22. "Lowest Floor" means the lowest floor of the lowest enclosed area including a 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 these regulations.
23. "Manufactured Home" means a structure transportable in one or more sections built on a permanent chassis and designed for use with or without a permanent foundation when attached to required utilities. The term "manufactured home" does not include a "recreational vehicle."
24. "Manufactured Home Park or Subdivision" means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.
25. "New Construction" means structures for which the "start of construction" commenced on or after the effective date of these 2009 regulations.
26. "New Manufactured Home Park or Subdivision" means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of



concrete pads) is completed on or after the effective date of adopted floodplain management regulations.

27. "Recreational Vehicle" means a vehicle which is:

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.

28. "Start of Construction" means the date a building permit was lawfully issued provided actual commencement of construction, repair, reconstruction, placement or other action was within 180 days thereof. Construction does not include:

1. Land preparation, such as clearing, grading and filling;
2. The installation of streets and/or walkways;
3. Excavation for a basement, footings, piers or foundations;
4. The erection of temporary forms; or
5. Installation(s) on the affected real property of accessory buildings such as garages or sheds not meant or designed to be occupied as dwelling units.

For a "substantial improvement", the actual start of construction means the first alteration of any wall, ceiling, floor or other structural part of a building regardless of whether the alteration affects the external dimensions of the building.

29. "State Building Code" means the combined specialty codes.

30. "Structure" means a walled and roofed building, including a gas or liquid storage tank that is principally above ground.

31. "Substantial Damage" means damage regardless of cause sustained by a structure where the cost of restoration to its before-damaged condition is equal to or exceeds 50 percent (50%) of the structure's market value prior to the damage.

32. "Substantial Improvement" means the first alteration of any wall, ceiling, floor, or other structural part of a structure or building regardless of whether the alteration affects the external dimensions of the structure, the cost of which equals or exceeds 50 percent (50%) of the market value of the structure either:

1. Before the improvement or repair is started; or
2. If the structure has been damaged and is being restored, before the damage occurred.

The term does not include either:

1. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions; or

2. Any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places.
33. "Variance" means a grant of relief from the requirements of these regulations permitting construction in a manner that would otherwise be prohibited hereby.
34. "Water Dependent" means a structure for commerce or industry which cannot exist in any other location and is dependent on the water by reason of the intrinsic nature of its operations.

#### **Section 16.05.030 General Provisions**

1. This Chapter applies to all areas of "special flood hazards" within the City as described in subsection (2) below.
2. The areas of "special flood hazard" are those areas identified by the Federal Insurance Administration in a report entitled "*The Flood Insurance Study for the Multnomah County, Oregon and Incorporated Areas*" (dated December 18, 2009) (hereinafter Study) along with accompanying FIRMs. Those documents are adopted by reference and declared to be part of this Chapter. A copy of the Maps and Study are on file in the Office of the Public Works Director. The best available information for flood hazard area identification shall be the basis for regulation until a new FIRM is issued.
3. No structure shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this Chapter. The City may seek any remedy lawfully available to it to effect compliance and in the event the City is compelled to seek judicial redress for violation(s) of this Chapter, the City shall be entitled to recover its reasonable attorneys and expert witness fees both at trial and on appeal.
4. This Chapter is not intended to repeal, abrogate or impair existing easements, covenants or deed restrictions. Where these regulations and another local, state or federal law conflict, the more restrictive shall control.
5. If any section clause, sentence, or phrase of this Chapter is held to be invalid or unconstitutional, then said holding shall in no way affect the validity of the remaining portions hereof.
6. These regulations shall be considered minimum requirements, construed in favor of the City and not deemed to either limit or repeal any other powers granted the City by state or federal law or its inherent plenary powers.

#### **SECTION 16.05.040 Administration**

1. Development Permit Required. A development permit shall be obtained prior to construction or development within any area of special flood hazard. The permit shall be for all structures including manufactured homes.
2. Application for Development Permit. Application(s) for a development permit shall be on forms furnished by the City, submitted to the Director and include plans in duplicate drawn to scale showing:
  1. The nature, location, dimensions and elevations of the development area;
  2. Existing and/or proposed structures;
  3. Fill;
  4. Storage of materials; and
  5. Drainage facilities.In addition to the foregoing, the following information is to be provided on the plans at the time application is made:
  1. Elevation of the lowest floor (including basement) of all structures in relation to mean sea level;
  2. Elevation in relation to mean sea level of flood-proofing in any structure;
  3. Certification by a registered professional engineer or Oregon licensed architect that flood-proofing methods for nonresidential structure(s) meet the requirements set out in 16.05.050(2)(2); and
  4. Description of the extent (if any) to which a watercourse may be altered as a result of the development.
3. Designation and Duties of Director. The Director is appointed to administer and implement this Chapter; duties include (but are not limited to) the following:
  1. Review of all development permit applications and all resulting permits to ensure compliance with requirements imposed by this Chapter;
  2. Determine whether appropriate federal, state and/or local regulatory permits have been obtained;
  3. Maintain all records pertaining to the provisions of this Chapter for public inspection;
  4. Notify adjacent communities, DLCD and other appropriate state and federal agencies prior to the alteration/relocation of a watercourse and cause the submission of evidence thereof to the Federal Insurance Administration as well as requiring maintenance of the flood carrying capacity thereof is not diminished;
  5. Make interpretations as to the location of boundaries of special flood hazard areas (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal;
  6. If the proposed development is located in a floodway, ensure the appropriate provisions of Section 16.50.050 are met;
  7. When base flood elevation data has not been provided (A and V Zones), use such base flood elevation and floodway data reasonably available from

Federal, State or other sources to address issues raised in Section 16.05.050;

8. Where base flood elevation data is provided through the Flood Insurance Study, FIRM, or otherwise, the Director shall obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basements and below-grade crawlspaces) of all new or substantially improved structures and whether the structure contains a basement; and
  9. For all new or substantially improved flood-proofed structures where base flood elevation data is provided through the Flood Insurance Study, FIRM, or as required in Section 16.05.040:
    - a. Verify and record the actual elevation (in relation to mean sea level); and
    - b. Maintain flood-proofing certifications required by Section 16.50.040.
4. Variances and Appeals. The Council is to hear appeals and requests for variance from the terms of this Chapter. In consideration of an appeal, the Council may consider technical evaluations and such other factors or standards deemed by it to be relevant, but variances may only be issued upon Council determination that the grant is the minimum necessary, considering the flood hazard, to afford relief.
- 5.
1. Council Determination Needed for Variance. Variances may be granted only in the event Council determines that:
    - a. There is good and sufficient cause therefor;
    - b. Failure to grant the variance would result in exceptional hardship to the applicant;
    - c. The variance will not result in increased flood heights, additional threat(s) to public safety, extraordinary public expense, creation of a nuisance, cause fraud on or victimization of the public nor otherwise conflict with existing local laws or regulations; and, in the event the variance relates to a structure within a designated floodway
    - d. Issuance of the variance will not result in any increase in flood levels during a base flood discharge.
  2. General Standards/Criteria for All Variances; Imposition of Conditions. In considering the issuance of a variance, Council shall consider the following factors, if relevant:
    - a. The danger that materials may be swept onto other lands to the injury of others;
    - b. The danger to life and property due to flooding or erosion damage;
    - c. The susceptibility of any proposed development and its contents to flood damage and the impact of such damage on the owner(s) thereof;
    - d. The importance of services provided by the proposed development facility to the City and community;

- e. The necessity to the facility of a waterfront location, where applicable;
- f. The availability of alternative location(s) for the proposed use not subject to flooding or erosion damage;
- g. The compatibility of the proposed use with existing and anticipated development;
- h. The relationship of the proposed use to the comprehensive plan and flood plain management program for that area;
- i. The safety of access to the property in times of flood for ordinary and emergency vehicles;
- j. The expected heights, velocity, duration, rate of rise and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site; and
- k. The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.

Upon consideration of the aforementioned factors, the Council may attach such reasonable conditions as it deems necessary.

3. Variance from elevation standards may be issued only for new construction or substantial improvements to an existing structure where construction is on a lot of ½-acre or less and contiguous to and surrounded by lots with existing structures constructed below the base flood level. All relevant factors in Section 16.05.040 must be addressed. As lot size increases, technical justification(s) supporting the variance also increase.
4. Variations applicable to Residential Properties. Variations as interpreted in the National Flood Insurance Program pertain to a piece of real property; they are not personal, do not pertain to the structure, its inhabitants, economic or financial circumstances. Variations primarily address small lots in densely populated residential neighborhoods; thus, variations from flood elevations should be rare.
5. Variations applicable to Non-Residential Property. Variations for non-residential buildings may be issued in limited circumstances to allowing for a lesser degree of flood-proofing than watertight or dry flood-proofing, where Council can determine that such action will have low damage potential, complies with all other relevant variance criteria and complies with Section 16.05.050.
6. Variations for Historic Properties. Variations may be issued for the reconstruction, rehabilitation, or restoration of structures listed on the National Register of Historic Places or the Statewide Inventory of Historic Properties, without regard to the procedures set forth in this section.

7. The Director shall maintain a record of all Council actions taken on variances and report the grant thereof (and the condition(s) imposed, if any) to the Federal Insurance Administration upon request.

**Section 16.05.050 General Standards for Flood Hazard Reduction**

1. In all areas of special flood hazards, the following is required:
  1. Anchoring.
    - a. All new construction and substantial improvement(s) shall be anchored to prevent flotation, collapse, or lateral movement of the structure; and
    - b. All manufactured homes shall be anchored to prevent flotation, collapse, or lateral movement and installed using methods and practices designed to minimize flood damage. Anchoring methods may include, but are not limited to use of over-the-top or frame ties to ground anchors (see, FEMA's "Manufactured Home Installation in Flood Hazard Areas").
  2. Construction Materials and Methods.
    - a. All new construction and substantial improvement(s) shall be constructed with materials and utility equipment resistant to flood damage;
    - b. All new construction and substantial improvement(s) shall be constructed using methods and practices designed to minimize flood damage; and
    - c. Electrical, heating, ventilation, plumbing, air-conditioning and other service equipment/facilities shall be designed and/or elevated or located to prevent water from entering or accumulating within the components during flooding.
  3. Utilities.
    - a. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;
    - b. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters; and
    - c. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding consistent with rules adopted by DEQ.
  4. Subdivision Proposals.
    - a. All subdivision proposals shall be consistent with the need to minimize flood damage;
    - b. All subdivision proposals shall have public utilities/facilities such as sewer, gas, electrical and water systems located and constructed to minimize or eliminate flood damage;
    - c. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; and
    - d. Where base flood elevation data has not been provided nor available from an authoritative source, it shall be generated for subdivision proposals and

other proposed developments which contain at least 50 lots or 5 acres, whichever is less.

5. **Review of Building Permits.** Where elevation data is unavailable through the Flood Insurance Study, FIRM or other authoritative source, building permit applications shall be reviewed with the aim of promoting safety from flooding. Use of historical data, high water marks, photographs of past flooding, etc. should be used where available. Failure to elevate at least two feet (2') above grade in these zones may result in higher insurance rates.
  6. **AH Zone Drainage.** Adequate drainage paths are required around structures on slopes to guide floodwaters around and away from proposed structures.
2. In areas of special flood hazard where base flood elevation data has been provided (Zones A1-30, AH, AE, A and V), the following requirements are to be met:
1. **Residential Construction.** New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to a minimum of one foot (1') above the base flood elevation. Fully enclosed areas subject to flooding below the lowest floor are either prohibited or 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 be certified by an Oregon registered/licensed professional engineer or architect or meet or exceed the following minimum criteria:
    - 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;
    - b. The bottom of all openings shall be no higher than one foot (1') above grade; and
    - c. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
  2. **Nonresidential Construction.** New construction and/or substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated at or above the base flood elevation or, together with attendant utility and sanitary facilities, shall:
    - a. Be flood-proofed such that below the base flood level, the structure is watertight with walls substantially impermeable to the passage of water;
    - b. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and
    - c. Be certified by a Oregon 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.

3. Elevated nonresidential structures. All elevated nonresidential structures not flood-proofed and with space below the lowest floor are either prohibited or must 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 be certified by an Oregon registered/licensed professional engineer or architect or meet or exceed the following minimum criteria:
  - 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;
  - b. The bottom of all openings shall be no higher than one foot (1') above grade; and
  - c. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
  
4. Persons flood-proofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot (1') below the flood-proofed level (e.g. a building flood-proofed to the base flood level will be rated as one foot (1') below.)
  
5. Manufactured Homes.
  1. All manufactured homes placed or substantially improved on sites:
    - a. In a new manufactured home park or subdivision;
    - b. Outside a manufactured home park or subdivision;
    - c. In an expansion to an existing manufactured home park or subdivision; or
    - d. In an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood,shall be elevated on a permanent foundation such that the finished floor of the manufactured home is elevated to a minimum 18 inches (46 cm) above the base flood elevation (BFE) and is securely anchored to an adequately designed foundation system to resist flotation, collapse and lateral movement.
  2. Manufactured homes placed or substantially improved on sites in an existing manufactured home park or subdivision within Zones A1-30, AH, and AE on the City's FIRM not otherwise subject to the above are to be elevated so that either:
    - a. The finished floor of the manufactured home is elevated to a minimum of 18 inches (46 cm) above the base flood elevation; or
    - b. 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 (92 cm) in height above grade and be securely anchored to an adequately designed foundation system to resist flotation, collapse, and lateral movement.



6. Recreational Vehicles.

Recreational vehicles placed on sites in special flood hazard zones are required to:

1. Be on the site for fewer than 180 consecutive days;
2. Be licensed and ready for highway use on its wheels or jacking system and attached to the site only by quick disconnect type utility and security devices;
3. Have no permanently attached additions; or, alternatively,
4. Meet the elevation and anchoring requirements for manufactured homes.

7. Below-grade crawl spaces.

Below-grade crawlspaces are allowed subject to standards found in FEMA's Technical Bulletin 11-01 "*Crawlspace Construction for Buildings Located in Special Flood Hazard Areas*":

1. The building must be designed and anchored to resist flotation, collapse, and lateral movement as a result of hydrodynamic and/or hydrostatic loads, including the effects of buoyancy. Hydrostatic loads and the effects of buoyancy can be addressed through openings described below.
2. Crawlspace construction is not allowed in areas with flood velocities greater than five feet (5') per second unless designed by an Oregon registered/licensed architect or professional engineer.
3. The crawlspace is an enclosed area below the base flood elevation (BFE) and must have openings equalizing hydrostatic pressures by allowing the automatic entry and exit of floodwaters with the bottom of each flood vent opening no more than one foot (1') above the lowest adjacent exterior grade.
4. Portions of the building below the BFE must be constructed with materials resistant to flood damage. This includes not only the foundation walls of the crawlspace 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.
5. Any building utility systems within the crawlspace must be elevated above BFE or designed so floodwaters cannot enter or accumulate within the system components. Ductwork, in particular, must either be placed above the BFE or sealed from floodwaters.
6. The interior grade of a crawlspace below the BFE must not be more than two feet (2') below the lowest adjacent exterior grade.
7. The height of the below-grade crawlspace measured from the interior grade of the crawlspace to the top of the crawlspace foundation wall must not exceed four feet (4') at any point. The height limitation is the maximum allowable unsupported wall height according to the engineering analysis and building code requirements for flood hazard areas.
8. There must be a drainage system providing for removal of floodwaters from the interior area of the crawlspace such that the area is drained within a reasonable time after a flood event. The system will vary as a result of the

site gradient and other drainage characteristics. Possible options include natural drainage through porous, well-drained soils and installation of drainage systems such as perforated pipes, drainage tiles, gravel or crushed stone to allow for drainage by gravity or mechanical means.

9. The velocity of floodwaters at the site should not exceed five feet (5') per second for any crawlspace. For velocities in excess of five feet (5') per second, other foundation types should be used.

For more detailed information refer to FEMA Technical Bulletin 11-01.

8. Floodway Not Established. Where a regulatory floodway has not been designated, no new construction, substantial improvement(s) or other development (including fill) is permitted within Zones A1-30 and AE on the City's FIRM, unless the cumulative effect(s) of the proposed development, when combined with other existing and anticipated development, does not increase the water surface elevation of the base flood more than one foot (1') at any point within the City.

9. Floodway Established.

1. In areas where a regulatory floodway has been designated, no encroachments (including fill), new construction, substantial improvement(s) and/or other development shall occur unless certification by a registered professional civil engineer is provided demonstrating that said encroachments will not result in any increase in flood levels during a base flood discharge. All new construction and any substantial improvement(s) shall comply with all applicable flood hazard reduction provisions.
2. Projects for stream habitat restoration may be permitted in a floodway provided:
  - a. The project qualifies for a Department of the Army, Portland District *Regional General Permit for Stream Habitat Restoration* (NWP-2007-1023);
  - b. A qualified professional (a Registered Professional Engineer, staff of Natural Resources Conservation Service (NRCS) or staff of Oregon or federal fisheries, natural resources or water resources agencies) has provided a feasibility analysis and certification that the project was designed to keep any rise in 100-year flood levels to as close to zero as practically possible given the goals of the project; and
  - c. No structures would be impacted by a potential rise in flood elevation; and
  - d. An agreement to monitor the project, correct problems, and ensure that flood carrying capacity remains unchanged is included as part of the local approval.
3. Manufactured dwellings may be located in floodways only under the following circumstances:

- a. If there is an existing manufactured dwelling, placement was permitted at the time of the original installation and its continued use is not a threat to life, health, property, or the general welfare of the public; or
- b. A new manufactured dwelling is replacing an existing one where the original placement was permitted at the time and the replacement will not be a threat to life, health, property or the general welfare of the public; and
- c. The location of the dwelling meets all the following:
  - i. Demonstration that the manufactured dwelling and any accessory building(s), structure(s) or other improvement(s) will not result in any increase in flood levels during the occurrence of a base flood discharge;
  - ii. The replacement dwelling and any accessory building(s)/structure(s) have a finished floor elevation of at least 18 inches (46 cm) above the BFE;
  - iii. The replacement dwelling is placed and secured to a foundation support system designed by an Oregon professional engineer or architect and approved by the City;
  - iv. The replacement dwelling, its foundation supports and any accessory building(s)/structure(s) or property improvement(s) do not displace water so as to cause a rise in water level or divert water in a manner likely to cause erosion/damage to other properties;
  - v. The replacement dwelling is appropriately zoned; and
  - vi. Location of the replacement dwelling will not violate any other local, state or federal law.

#### 10. Shallow Flooding Areas.

The following restrictions apply in Shallow Flooding Areas:

- 1. New construction and substantial improvements of residential structures and manufactured homes shall have the lowest floor (including basement) elevated above the highest grade adjacent to the building, a minimum of one foot (1') above the depth number specified on the FIRM and at least two feet (2') if no depth number is specified.
- 2. New construction and substantial improvements of nonresidential structures shall either:
  - i. Have the lowest floor (including basement) elevated above the highest adjacent grade of the building site, one foot (1') or more above the depth number specified on the FIRM (at least two feet (2') if no depth number is specified); or
  - ii. Together with attendant utility and sanitary facilities, be completely flood-proofed to or above that level such 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.

3. Require adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures.
4. Recreational vehicles placed on sites must either:
  - i. Be on the site for fewer than 180 consecutive days, and
  - ii. Be fully licensed and ready for highway use, 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; or
  - iii. Meet the elevation and anchoring requirements for manufactured homes set out above.

#### 11. Critical Facilities.

1. Construction of new critical facilities shall, to the extent possible, be located outside the limits of the Special Flood Hazard Area (SFHA) (100-year floodplain).
2. Construction of new critical facilities shall be permissible within the SFHA if no feasible alternative site is available. Critical facilities constructed within the SFHA shall have the lowest floor elevated three feet above BFE or to the height of the 500-year flood, whichever is higher. Access to and from the facility should be protected to the height noted. Flood-proofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into floodwaters. Access routes elevated to or above the level of the base flood elevation shall be provided to all critical facilities to the extent possible.

**City of Fairview, Oregon**  
**ORDINANCE No. 10-2009**

**AN ORDINANCE REPEALING FAIRVIEW MUNICIPAL CODE CHAPTER 16.05 – FLOOD HAZARD AREAS - AND REPLACING IT WITH NEW PROVISIONS IN A NEW CHAPTER 16.05 – FLOOD DAMAGE PREVENTION; DECLARING AN EMERGENCY.**

**WHEREAS**, certain areas of the City are subject to periodic inundations which may result in loss of life and damage to property, disruption of commerce and governmental services, all of which in turn cause extraordinary public expenditures for flood protection and relief.

**WHEREAS**, these flood losses are caused in some measure by the cumulative effect of structures and other obstructions that are located in special flood hazard areas, which structures and other obstructions increase flood height and velocity and when inadequately constructed or secured potentially cause damage in other areas. Further, uses that are inadequately flood-proofed, elevated or otherwise protected from flood damage also contribute to flood losses.

**WHEREAS**, the Federal Emergency Management Agency (FEMA) periodically updates its Flood Insurance Studies and Mapping to incorporate new developments, new data and updated hydraulic modeling for areas subject to flooding and FEMA has done so recently with areas in Multnomah County, including areas inside the City.

**WHEREAS**, the City is required as a condition for property coverage under the Federal Flood Insurance Program, to adopt regulations addressing certain activities involving the construction, location and control of structures located in areas in the City identified by FEMA as being subject to flooding.

**NOW THEREFORE, THE CITY OF FAIRVIEW ORDAINS AS FOLLOWS:**

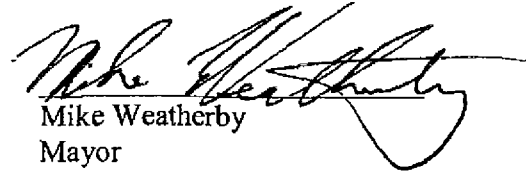
**SECTION 1.** Chapter 16.05 of the Fairview Municipal Code is hereby repealed in its entirety and replaced with a new Chapter 16.05 to read as set out in Exhibit "A".

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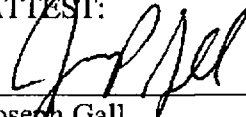
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SECTION 2. In order that the City and its residents and businesses are able to have continuing access to the resources of the Federal Flood Insurance Program, there is an immediate need to enact the foregoing provisions and therefore an emergency is declared. This Ordinance takes effect on the date of passage.

**DULY PASSED BY THE CITY COUNCIL ON THIS 4<sup>th</sup> DAY OF November, 2009.**

  
Mike Weatherby  
Mayor

ATTEST:

  
\_\_\_\_\_  
Joseph Gall  
City Administrator/Recorder

## EXHIBIT "A"

### Chapter 16.05 FLOOD DAMAGE PREVENTION

#### Sections:

- 16.05.010 Definitions.
- 16.05.030 General Provisions.
- 16.05.040 Administration.
- 16.05.050 Provisions for Flood Hazard Reduction.

#### **Section 16.05.010 Definitions**

Unless specifically defined below, words or phrases used in this Chapter shall be interpreted to give them their meaning in common usage and give these regulations their most reasonable application/scope.

1. "Appeal" means a request for a review of the interpretation of any provision of this ordinance or a request for a variance.
2. "Area of Shallow Flooding" means a designated AO or AH Zone on the Flood Insurance Rate Map (FIRM). The base flood depths range from one to three feet; a clearly defined channel does not exist; the path of flooding is unpredictable and indeterminate; and velocity flow may be evident. AO is characterized as sheet flow and AH indicates ponding.
3. "Area of Special Flooding Hazard" means the land in the flood plain within a community subject to a one percent (1%) or greater chance of flooding in any given year. Designation on maps always includes the letters A or V.
4. "Base Flood" means the flood having a one percent (1%) chance of being equaled or exceeded in any given year, also known as a "100-year flood." Designation on maps always includes the letters A or V.
5. "Basement" means any area of a building having its floor sub-grade below ground level on all sides.
6. "Below-Grade Crawl Space" means an enclosed area below the base flood elevation in which the interior grade is not more than two feet (2') below the lowest adjacent exterior grade and the height - measured from the interior grade of the crawlspace to the top of the crawlspace foundation - does not exceed four feet (4') at any point.

7. "Breakaway Wall" means a wall not part of the structural support of a building and intended through its design and construction to collapse under specific lateral loading forces without causing damage to the elevated portion of the building or supporting foundation system.
8. "City" means the City of Fairview, Oregon.
9. "Council" or "City Council" means the Fairview City Council or such person(s) or entity(ies) designated by that body to perform the appeal or variance review functions given it by the terms of this Chapter.
10. "Critical Facility" means a facility where a slight chance of flooding may be too great. Critical facilities include:
  1. Schools;
  2. Nursing homes;
  3. Hospitals;
  4. Police, fire and other emergency response installations; and
  5. Installations producing, using or storing hazardous materials or waste.
11. "Director" means the City's Community Development Director or designate.
12. "DEQ" means the Oregon Department of Environmental Quality.
13. "Development" means any man-made change to improved or unimproved real property, including:
  1. Buildings or other structures;
  2. Mining operations;
  3. Dredging, filling, grading, paving, excavation;
  4. Drilling operations; or
  5. Storage of equipment or materials located within the area of special flood hazard.
14. "DLCD" means the Oregon Department of Land Conservation and Development.
15. "Elevated Building" means for insurance purposes, a non-basement building which has its lowest elevated floor raised above ground level by foundation walls, shear walls, post, piers, pilings, or columns.
16. "Existing Manufactured Home Park of Subdivision" means a park subdivision where construction of facilities needed for servicing the lots where the manufactured homes are to be affixed is completed before the effective date of the adopted floodplain management regulations, including installation of utilities, construction of streets and either final site grading or the pouring of concrete pads.



17. "Expansion to an Existing Manufactured Home Park or Subdivision" means the preparation of additional sites through construction of facilities for servicing the lots on which the manufactured homes are to be affixed, including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads.
18. "Flood or Flooding" means a general and temporary condition of partial or complete inundation of normally dry land areas 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.
19. "Flood Insurance Rate Map (FIRM)" means the official map on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable.
20. "Flood Insurance Study" means the official report provided by the Federal Insurance Administration that includes flood profiles, the Flood Boundary-Floodway Map and the water surface elevation of the base flood.
21. "Floodway" means the river channel or other watercourse and adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot (1').
22. "Lowest Floor" means the lowest floor of the lowest enclosed area including a 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 these regulations.
23. "Manufactured Home" means a structure transportable in one or more sections built on a permanent chassis and designed for use with or without a permanent foundation when attached to required utilities. The term "manufactured home" does not include a "recreational vehicle."
24. "Manufactured Home Park or Subdivision" means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.
25. "New Construction" means structures for which the "start of construction" commenced on or after the effective date of these 2009 regulations.
26. "New Manufactured Home Park or Subdivision" means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of

concrete pads) is completed on or after the effective date of adopted floodplain management regulations.

27. "Recreational Vehicle" means a vehicle which is:

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.

28. "Start of Construction" means the date a building permit was lawfully issued provided actual commencement of construction, repair, reconstruction, placement or other action was within 180 days thereof. Construction does not include:

1. Land preparation, such as clearing, grading and filling;
2. The installation of streets and/or walkways;
3. Excavation for a basement, footings, piers or foundations;
4. The erection of temporary forms; or
5. Installation(s) on the affected real property of accessory buildings such as garages or sheds not meant or designed to be occupied as dwelling units.

For a "substantial improvement", the actual start of construction means the first alteration of any wall, ceiling, floor or other structural part of a building regardless of whether the alteration affects the external dimensions of the building.

29. "State Building Code" means the combined specialty codes.

30. "Structure" means a walled and roofed building, including a gas or liquid storage tank that is principally above ground.

31. "Substantial Damage" means damage regardless of cause sustained by a structure where the cost of restoration to its before-damaged condition is equal to or exceeds 50 percent (50%) of the structure's market value prior to the damage.

32. "Substantial Improvement" means the first alteration of any wall, ceiling, floor, or other structural part of a structure or building regardless of whether the alteration affects the external dimensions of the structure, the cost of which equals or exceeds 50 percent (50%) of the market value of the structure either:

1. Before the improvement or repair is started; or
2. If the structure has been damaged and is being restored, before the damage occurred.

The term does not include either:

1. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions; or

2. Any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places.
33. "Variance" means a grant of relief from the requirements of these regulations permitting construction in a manner that would otherwise be prohibited hereby.
34. "Water Dependent" means a structure for commerce or industry which cannot exist in any other location and is dependent on the water by reason of the intrinsic nature of its operations.

#### **Section 16.05.030 General Provisions**

1. This Chapter applies to all areas of "special flood hazards" within the City as described in subsection (2) below.
2. The areas of "special flood hazard" are those areas identified by the Federal Insurance Administration in a report entitled "*The Flood Insurance Study for the Multnomah County, Oregon and Incorporated Areas*" (dated December 18, 2009) (hereinafter Study) along with accompanying FIRMs. Those documents are adopted by reference and declared to be part of this Chapter. A copy of the Maps and Study are on file in the Office of the Public Works Director. The best available information for flood hazard area identification shall be the basis for regulation until a new FIRM is issued.
3. No structure shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this Chapter. The City may seek any remedy lawfully available to it to effect compliance and in the event the City is compelled to seek judicial redress for violation(s) of this Chapter, the City shall be entitled to recover its reasonable attorneys and expert witness fees both at trial and on appeal.
4. This Chapter is not intended to repeal, abrogate or impair existing easements, covenants or deed restrictions. Where these regulations and another local, state or federal law conflict, the more restrictive shall control.
5. If any section clause, sentence, or phrase of this Chapter is held to be invalid or unconstitutional, then said holding shall in no way affect the validity of the remaining portions hereof.
6. These regulations shall be considered minimum requirements, construed in favor of the City and not deemed to either limit or repeal any other powers granted the City by state or federal law or its inherent plenary powers.

#### **SECTION 16.05.040 Administration**

1. Development Permit Required. A development permit shall be obtained prior to construction or development within any area of special flood hazard. The permit shall be for all structures including manufactured homes.
2. Application for Development Permit. Application(s) for a development permit shall be on forms furnished by the City, submitted to the Director and include plans in duplicate drawn to scale showing:
  1. The nature, location, dimensions and elevations of the development area;
  2. Existing and/or proposed structures;
  3. Fill;
  4. Storage of materials; and
  5. Drainage facilities.In addition to the foregoing, the following information is to be provided on the plans at the time application is made:
  1. Elevation of the lowest floor (including basement) of all structures in relation to mean sea level;
  2. Elevation in relation to mean sea level of flood-proofing in any structure;
  3. Certification by a registered professional engineer or Oregon licensed architect that flood-proofing methods for nonresidential structure(s) meet the requirements set out in 16.05.050(2)(2); and
  4. Description of the extent (if any) to which a watercourse may be altered as a result of the development.
3. Designation and Duties of Director. The Director is appointed to administer and implement this Chapter; duties include (but are not limited to) the following:
  1. Review of all development permit applications and all resulting permits to ensure compliance with requirements imposed by this Chapter;
  2. Determine whether appropriate federal, state and/or local regulatory permits have been obtained;
  3. Maintain all records pertaining to the provisions of this Chapter for public inspection;
  4. Notify adjacent communities, DLCD and other appropriate state and federal agencies prior to the alteration/relocation of a watercourse and cause the submission of evidence thereof to the Federal Insurance Administration as well as requiring maintenance of the flood carrying capacity thereof is not diminished;
  5. Make interpretations as to the location of boundaries of special flood hazard areas (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal;
  6. If the proposed development is located in a floodway, ensure the appropriate provisions of Section 16.50.050 are met;
  7. When base flood elevation data has not been provided (A and V Zones), use such base flood elevation and floodway data reasonably available from

Federal, State or other sources to address issues raised in Section 16.05.050;

8. Where base flood elevation data is provided through the Flood Insurance Study, FIRM, or otherwise, the Director shall obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basements and below-grade crawlspaces) of all new or substantially improved structures and whether the structure contains a basement; and
  9. For all new or substantially improved flood-proofed structures where base flood elevation data is provided through the Flood Insurance Study, FIRM, or as required in Section 16.05.040:
    - a. Verify and record the actual elevation (in relation to mean sea level); and
    - b. Maintain flood-proofing certifications required by Section 16.50.040.
4. Variances and Appeals. The Council is to hear appeals and requests for variance from the terms of this Chapter. In consideration of an appeal, the Council may consider technical evaluations and such other factors or standards deemed by it to be relevant, but variances may only be issued upon Council determination that the grant is the minimum necessary, considering the flood hazard, to afford relief.
- 5.
1. Council Determination Needed for Variance. Variances may be granted only in the event Council determines that:
    - a. There is good and sufficient cause therefor;
    - b. Failure to grant the variance would result in exceptional hardship to the applicant;
    - c. The variance will not result in increased flood heights, additional threat(s) to public safety, extraordinary public expense, creation of a nuisance, cause fraud on or victimization of the public nor otherwise conflict with existing local laws or regulations; and, in the event the variance relates to a structure within a designated floodway
    - d. Issuance of the variance will not result in any increase in flood levels during a base flood discharge.
  2. General Standards/Criteria for All Variances; Imposition of Conditions. In considering the issuance of a variance, Council shall consider the following factors, if relevant:
    - a. The danger that materials may be swept onto other lands to the injury of others;
    - b. The danger to life and property due to flooding or erosion damage;
    - c. The susceptibility of any proposed development and its contents to flood damage and the impact of such damage on the owner(s) thereof;
    - d. The importance of services provided by the proposed development facility to the City and community;

- e. The necessity to the facility of a waterfront location, where applicable;
- f. The availability of alternative location(s) for the proposed use not subject to flooding or erosion damage;
- g. The compatibility of the proposed use with existing and anticipated development;
- h. The relationship of the proposed use to the comprehensive plan and flood plain management program for that area;
- i. The safety of access to the property in times of flood for ordinary and emergency vehicles;
- j. The expected heights, velocity, duration, rate of rise and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site; and
- k. The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.

Upon consideration of the aforementioned factors, the Council may attach such reasonable conditions as it deems necessary.

3. Variance from elevation standards may be issued only for new construction or substantial improvements to an existing structure where construction is on a lot of ½-acre or less and contiguous to and surrounded by lots with existing structures constructed below the base flood level. All relevant factors in Section 16.05.040 must be addressed. As lot size increases, technical justification(s) supporting the variance also increase.
4. Variations applicable to Residential Properties. Variations as interpreted in the National Flood Insurance Program pertain to a piece of real property; they are not personal, do not pertain to the structure, its inhabitants, economic or financial circumstances. Variations primarily address small lots in densely populated residential neighborhoods; thus, variations from flood elevations should be rare.
5. Variations applicable to Non-Residential Property. Variations for non-residential buildings may be issued in limited circumstances to allowing for a lesser degree of flood-proofing than watertight or dry flood-proofing, where Council can determine that such action will have low damage potential, complies with all other relevant variance criteria and complies with Section 16.05.050.
6. Variations for Historic Properties. Variations may be issued for the reconstruction, rehabilitation, or restoration of structures listed on the National Register of Historic Places or the Statewide Inventory of Historic Properties, without regard to the procedures set forth in this section.

7. The Director shall maintain a record of all Council actions taken on variances and report the grant thereof (and the condition(s) imposed, if any) to the Federal Insurance Administration upon request.

**Section 16.05.050 General Standards for Flood Hazard Reduction**

1. In all areas of special flood hazards, the following is required:
  1. Anchoring.
    - a. All new construction and substantial improvement(s) shall be anchored to prevent flotation, collapse, or lateral movement of the structure; and
    - b. All manufactured homes shall be anchored to prevent flotation, collapse, or lateral movement and installed using methods and practices designed to minimize flood damage. Anchoring methods may include, but are not limited to use of over-the-top or frame ties to ground anchors (see, FEMA's "Manufactured Home Installation in Flood Hazard Areas").
  2. Construction Materials and Methods.
    - a. All new construction and substantial improvement(s) shall be constructed with materials and utility equipment resistant to flood damage;
    - b. All new construction and substantial improvement(s) shall be constructed using methods and practices designed to minimize flood damage; and
    - c. Electrical, heating, ventilation, plumbing, air-conditioning and other service equipment/facilities shall be designed and/or elevated or located to prevent water from entering or accumulating within the components during flooding.
  3. Utilities.
    - a. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;
    - b. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters; and
    - c. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding consistent with rules adopted by DEQ.
  4. Subdivision Proposals.
    - a. All subdivision proposals shall be consistent with the need to minimize flood damage;
    - b. All subdivision proposals shall have public utilities/facilities such as sewer, gas, electrical and water systems located and constructed to minimize or eliminate flood damage;
    - c. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; and
    - d. Where base flood elevation data has not been provided nor available from an authoritative source, it shall be generated for subdivision proposals and

other proposed developments which contain at least 50 lots or 5 acres, whichever is less.

5. Review of Building Permits. Where elevation data is unavailable through the Flood Insurance Study, FIRM or other authoritative source, building permit applications shall be reviewed with the aim of promoting safety from flooding. Use of historical data, high water marks, photographs of past flooding, etc. should be used where available. Failure to elevate at least two feet (2') above grade in these zones may result in higher insurance rates.
  6. AH Zone Drainage. Adequate drainage paths are required around structures on slopes to guide floodwaters around and away from proposed structures.
2. In areas of special flood hazard where base flood elevation data has been provided (Zones A1-30, AH, AE, A and V), the following requirements are to be met:
1. Residential Construction. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to a minimum of one foot (1') above the base flood elevation. Fully enclosed areas subject to flooding below the lowest floor are either prohibited or 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 be certified by an Oregon registered/licensed professional engineer or architect or meet or exceed the following minimum criteria:
    - 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;
    - b. The bottom of all openings shall be no higher than one foot (1') above grade; and
    - c. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
  2. Nonresidential Construction. New construction and/or substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated at or above the base flood elevation or, together with attendant utility and sanitary facilities, shall:
    - a. Be flood-proofed such that below the base flood level, the structure is watertight with walls substantially impermeable to the passage of water;
    - b. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and
    - c. Be certified by a Oregon 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.



3. Elevated nonresidential structures. All elevated nonresidential structures not flood-proofed and with space below the lowest floor are either prohibited or must 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 be certified by an Oregon registered/licensed professional engineer or architect or meet or exceed the following minimum criteria:
  - 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;
  - b. The bottom of all openings shall be no higher than one foot (1') above grade; and
  - c. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
4. Persons flood-proofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot (1') below the flood-proofed level (e.g. a building flood-proofed to the base flood level will be rated as one foot (1') below.)
5. Manufactured Homes.
  1. All manufactured homes placed or substantially improved on sites:
    - a. In a new manufactured home park or subdivision;
    - b. Outside a manufactured home park or subdivision;
    - c. In an expansion to an existing manufactured home park or subdivision; or
    - d. In an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood,shall be elevated on a permanent foundation such that the finished floor of the manufactured home is elevated to a minimum 18 inches (46 cm) above the base flood elevation (BFE) and is securely anchored to an adequately designed foundation system to resist flotation, collapse and lateral movement.
  2. Manufactured homes placed or substantially improved on sites in an existing manufactured home park or subdivision within Zones A1-30, AH, and AE on the City's FIRM not otherwise subject to the above are to be elevated so that either:
    - a. The finished floor of the manufactured home is elevated to a minimum of 18 inches (46 cm) above the base flood elevation; or
    - b. 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 (92 cm) in height above grade and be securely anchored to an adequately designed foundation system to resist flotation, collapse, and lateral movement.

6. Recreational Vehicles.

Recreational vehicles placed on sites in special flood hazard zones are required to:

1. Be on the site for fewer than 180 consecutive days;
2. Be licensed and ready for highway use on its wheels or jacking system and attached to the site only by quick disconnect type utility and security devices;
3. Have no permanently attached additions; or, alternatively,
4. Meet the elevation and anchoring requirements for manufactured homes.

7. Below-grade crawl spaces.

Below-grade crawlspaces are allowed subject to standards found in FEMA's Technical Bulletin 11-01 "*Crawlspace Construction for Buildings Located in Special Flood Hazard Areas*".

1. The building must be designed and anchored to resist flotation, collapse, and lateral movement as a result of hydrodynamic and/or hydrostatic loads, including the effects of buoyancy. Hydrostatic loads and the effects of buoyancy can be addressed through openings described below.
2. Crawlspace construction is not allowed in areas with flood velocities greater than five feet (5') per second unless designed by an Oregon registered/licensed architect or professional engineer.
3. The crawlspace is an enclosed area below the base flood elevation (BFE) and must have openings equalizing hydrostatic pressures by allowing the automatic entry and exit of floodwaters with the bottom of each flood vent opening no more than one foot (1') above the lowest adjacent exterior grade.
4. Portions of the building below the BFE must be constructed with materials resistant to flood damage. This includes not only the foundation walls of the crawlspace 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.
5. Any building utility systems within the crawlspace must be elevated above BFE or designed so floodwaters cannot enter or accumulate within the system components. Ductwork, in particular, must either be placed above the BFE or sealed from floodwaters.
6. The interior grade of a crawlspace below the BFE must not be more than two feet (2') below the lowest adjacent exterior grade.
7. The height of the below-grade crawlspace measured from the interior grade of the crawlspace to the top of the crawlspace foundation wall must not exceed four feet (4') at any point. The height limitation is the maximum allowable unsupported wall height according to the engineering analysis and building code requirements for flood hazard areas.
8. There must be a drainage system providing for removal of floodwaters from the interior area of the crawlspace such that the area is drained within a reasonable time after a flood event. The system will vary as a result of the

site gradient and other drainage characteristics. Possible options include natural drainage through porous, well-drained soils and installation of drainage systems such as perforated pipes, drainage tiles, gravel or crushed stone top allow for drainage by gravity or mechanical means.

9. The velocity of floodwaters at the site should not exceed five feet (5') per second for any crawlspace. For velocities in excess of five feet (5') per second, other foundation types should be used.

For more detailed information refer to FEMA Technical Bulletin 11-01.

8. Floodway Not Established. Where a regulatory floodway has not been designated, no new construction, substantial improvement(s) or other development (including fill) is permitted within Zones A1-30 and AE on the City's FIRM, unless the cumulative effect(s) of the proposed development, when combined with other existing and anticipated development, does not increase the water surface elevation of the base flood more than one foot (1') at any point within the City.

9. Floodway Established.

1. In areas where a regulatory floodway has been designated, no encroachments (including fill), new construction, substantial improvement(s) and/or other development shall occur unless certification by a registered professional civil engineer is provided demonstrating that said encroachments will not result in any increase in flood levels during a base flood discharge. All new construction and any substantial improvement(s) shall comply with all applicable flood hazard reduction provisions.
2. Projects for stream habitat restoration may be permitted in a floodway provided:
  - a. The project qualifies for a Department of the Army, Portland District *Regional General Permit for Stream Habitat Restoration* (NWP-2007-1023);
  - b. A qualified professional (a Registered Professional Engineer, staff of Natural Resources Conservation Service (NRCS) or staff of Oregon or federal fisheries, natural resources or water resources agencies) has provided a feasibility analysis and certification that the project was designed to keep any rise in 100-year flood levels to as close to zero as practically possible given the goals of the project; and
  - c. No structures would be impacted by a potential rise in flood elevation; and
  - d. An agreement to monitor the project, correct problems, and ensure that flood carrying capacity remains unchanged is included as part of the local approval.
3. Manufactured dwellings may be located in floodways only under the following circumstances:

- a. If there is an existing manufactured dwelling, placement was permitted at the time of the original installation and its continued use is not a threat to life, health, property, or the general welfare of the public; or
- b. A new manufactured dwelling is replacing an existing one where the original placement was permitted at the time and the replacement will not be a threat to life, health, property or the general welfare of the public; and
- c. The location of the dwelling meets all the following:
  - i. Demonstration that the manufactured dwelling and any accessory building(s), structure(s) or other improvement(s) will not result in any increase in flood levels during the occurrence of a base flood discharge;
  - ii. The replacement dwelling and any accessory building(s)/structure(s) have a finished floor elevation of at least 18 inches (46 cm) above the BFE;
  - iii. The replacement dwelling is placed and secured to a foundation support system designed by an Oregon professional engineer or architect and approved by the City;
  - iv. The replacement dwelling, its foundation supports and any accessory building(s)/structure(s) or property improvement(s) do not displace water so as to cause a rise in water level or divert water in a manner likely to cause erosion/damage to other properties;
  - v. The replacement dwelling is appropriately zoned; and
  - vi. Location of the replacement dwelling will not violate any other local, state or federal law.

#### 10. Shallow Flooding Areas.

The following restrictions apply in Shallow Flooding Areas:

1. New construction and substantial improvements of residential structures and manufactured homes shall have the lowest floor (including basement) elevated above the highest grade adjacent to the building, a minimum of one foot (1') above the depth number specified on the FIRM and at least two feet (2') if no depth number is specified.
2. New construction and substantial improvements of nonresidential structures shall either:
  - i. Have the lowest floor (including basement) elevated above the highest adjacent grade of the building site, one foot (1') or more above the depth number specified on the FIRM (at least two feet (2') if no depth number is specified); or
  - ii. Together with attendant utility and sanitary facilities, be completely flood-proofed to or above that level such 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.

3. Require adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures.
4. Recreational vehicles placed on sites must either:
  - i. Be on the site for fewer than 180 consecutive days, and
  - ii. Be fully licensed and ready for highway use, 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; or
  - iii. Meet the elevation and anchoring requirements for manufactured homes set out above.

#### 11. Critical Facilities.

1. Construction of new critical facilities shall, to the extent possible, be located outside the limits of the Special Flood Hazard Area (SFHA) (100-year floodplain).
2. Construction of new critical facilities shall be permissible within the SFHA if no feasible alternative site is available. Critical facilities constructed within the SFHA shall have the lowest floor elevated three feet above BFE or to the height of the 500-year flood, whichever is higher. Access to and from the facility should be protected to the height noted. Flood-proofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into floodwaters. Access routes elevated to or above the level of the base flood elevation shall be provided to all critical facilities to the extent possible.

City of Fairview  
1300 NE Village St  
PO Box 337  
Fairview, OR 97024

Attention: Plan Amendment Specialist  
Dept. of Land Conservation & Development  
635 Capitol Street NE, Suite 150  
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