

Site Development Standards

9.6700 **Purpose of Site Development Standards.** Certain standards are required for development on all sites within the city or within a particular area, regardless of the zoning of the site. These standards are necessary to fulfill the general purpose of this land use code in EC 9.0020 Purpose.

(Section 9.6700, see chart at front of Chapter 9 for legislative history from 2/26/01 through 6/1/02.)

9.6705 **Development in Flood Plains - Purpose.** It is the purpose of sections 9.6705 to 9.6709 to promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas by adopting provisions designed to:

- (1) Protect human life and health.
- (2) Minimize expenditure of public money and costly flood control projects.
- (3) Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public.
- (4) Minimize prolonged business interruptions.
- (5) Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, and bridges located in areas of special flood hazard.
- (6) Help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas.
- (7) Ensure that potential buyers are notified that property is in an area of special flood hazard.
- (8) Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

(Section 9.6705, see chart at front of Chapter 9 for legislative history from 2/26/01 through 6/1/02.)

9.6706 **Development in Flood Plains.** All development proposed for location in Special Flood Hazard Areas or Floodways as identified by the Federal Emergency Management Agency in the scientific and engineering report entitled "The Flood Insurance Study for Lane County, Oregon and Incorporated Areas" and associated Flood Insurance Rate Maps dated June 2, 1999 and any amendments thereto adopted by the city, effective at the time of the land use or development permit application, shall comply with the provisions of this code.

(Section 9.6706, see chart at front of Chapter 9 for legislative history from 2/26/01 through 6/1/02.)

9.6707 **Special Flood Hazard Areas - Development Permit.**

- (1) A development permit shall be obtained before construction or development begins within any area of special flood hazard established in section 9.6706. The permit shall be for all structures including manufactured homes as defined in this land use code, and for all other development including fill and other activities, as also defined in section 9.0500. Application for a development permit shall be made on forms furnished by the building official and may include but not be limited to plans in duplicate drawn to scale showing the nature, location, dimensions and elevations of the area in question; existing or

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proposed structures, fill, storage of materials, drainage facilities, and the location of the foregoing. The following information is specifically required:

- (a) Elevation in relation to mean sea level, of the lowest floor (including basement) of all structures.
 - (b) Elevation in relation to mean sea level to which any structure has been flood proofed.
 - (c) Certification by a registered professional engineer or architect that the flood proofing methods for any non-residential structure meet the flood proofing standards in section 9.6709.
 - (d) A description of the extent to which a watercourse will be altered or relocated as a result of proposed development.
- (2) The building official or his/her designee shall administer and implement the provisions of sections 9.6705 to 9.6709 by granting or denying development permit applications in accordance with their provisions. In connection therewith, the duties of the building official or designee shall include, but not be limited to:
- (a) Review of all development permits to determine that the permit requirements of sections 9.6705 to 9.6709 have been satisfied;
 - (b) Review of all development permits to determine that all necessary permits have been obtained from those federal, state or local governmental agencies, including the city, from which prior approval is required;
 - (c) Review of all development permits to determine if the proposed development is located in the floodway. If located in the floodway, the building official shall assure that the encroachment provisions of section 9.6709 are met;
 - (d) Obtaining, reviewing and reasonably utilizing any base flood elevation and floodway data available from a federal, state, or other source in order to administer the provisions of section 9.6709 (2) subsections (a) and (b), if the base flood elevation data has not been provided in accordance with subsection (1) of this section.
 - (e) Obtaining and recording the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, whether or not the structure contains a basement where base flood elevation data is provided through the Flood Insurance Study or required as in subsection (d) of this section;
 - (f) Verifying and recording the actual elevation (in relation to mean sea level) and maintaining the floodproofing certifications required in subsection (1) of this section for all new or substantially improved floodproofed structures;
 - (g) Notifying adjacent communities and the Division of State Lands prior to any alteration or relocation of a watercourse, and submitting evidence of such notification to the Federal Insurance Administration;
 - (h) Requiring that maintenance is provided within the altered or relocated portion of a watercourse so that the flood carrying capacity is not diminished; and
 - (i) Maintain for public inspection all records pertaining to the provisions of sections 9.6705 to 9.6709.
- (3) Within 5 days of the decision, the building official shall mail a notice of the decision and of the opportunity to appeal to the applicant and owners and

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occupants of property located within 100 feet of the subject property.

- (4) The decision of the building official may be appealed to the hearings official in the manner provided in this land use code.

(Section 9.6707, see chart at front of Chapter 9 for legislative history from 2/26/01 through 6/1/02.)

- 9.6708 Special Flood Hazard Areas - Variances.** The building official may approve, conditionally approve, or deny an application for a variance from the provisions of sections 9.6705 to 9.6709, except that no variance shall be allowed within a floodway. The building official's decision shall be based on the following criteria:
- (1) Compliance with applicable provisions of this land use code;
 - (2) Consideration of all technical evaluations, other relevant factors and standards set forth in section 9.6709, and:
 - (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 the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
 - (d) The importance of the services provided by the proposed facility to the community;
 - (e) The necessity to the facility of a waterfront location, where applicable;
 - (f) The availability of alternative locations for the proposed use which are 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;
 - (k) 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,
 - (l) 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.
 - (m) A determination that the variance is the minimum necessary, considering the flood hazard, to afford relief;
 - (n) A determination that good and sufficient cause exists for the variance;
 - (o) Failure to grant the variance would result in exceptional hardship to the applicant;
 - (p) Granting the variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.
 - (q) That variances are interpreted in the National Flood Insurance Program based on the general zoning law principle that they pertain to a physical piece of property; they are not personal in nature and do not pertain to the structure, its inhabitants, economic or financial circumstances. They primarily address small lots in densely populated residential

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neighborhoods. As such, variances from the flood elevations should be quite rare.

- (r) That variances may be issued for nonresidential buildings in very limited circumstances to allow a lesser degree of floodproofing, where it can be determined that such action will have low damage potential, complies with all other variance criteria, and otherwise complies with section 9.6709.
- (3) Within five days of the decision, notice of the building official's decision and of the opportunity to appeal shall be mailed to the applicant and to owners and occupants of property located within 100 feet of the subject property.
- (4) The decision of the building official may be appealed to the hearings official in the manner set forth in this land use code.

(Section 9.6708, see chart at front of Chapter 9 for legislative history from 2/26/01 through 6/1/02.)

9.6709 Special Flood Hazard Areas - Standards.

- (1) **General Standards.** In all areas of special flood hazards, compliance with the following standards is 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 shall 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 (reference FEMA's "Manufactured Home Installation in Flood Hazard Areas" guidebook for additional techniques).
 - (b) **Construction Materials and Methods.** All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage, using methods and practices that minimize flood damage. Electrical, heating, ventilation, plumbing, and air-conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
 - (c) **Utilities.**
 - 1. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;
 - 2. 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,
 - 3. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.
 - (d) **Subdivision Proposals.**
 - 1. All subdivision proposals shall:
 - a. Be consistent with the need to minimize flood damage;
 - b. Have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to

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- water;
2. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;
 3. Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this subsection based on their development and/or review of the structural design, specifications and plans. Such certifications shall be provided to the building official as required in section 9.6707.
 4. Nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the lowest floor as described in subparagraph (2)(a)2. of this section.
 5. Applicants floodproofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the floodproofed level (e.g. a building constructed to the base flood level will be rated as one foot below that level).
- (c) Manufactured Homes. All manufactured homes to be placed or substantially improved within Zones A1-30, AH, and AE shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is at or above the base flood elevation and be securely anchored to an adequately anchored foundation system in accordance with the provisions of subsection (1)(a)2 of this section.
- (d) Floodways. Within areas of special flood hazard established in section 9.6706 are areas designated as floodways. Since a floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles, and erosion potential, the following provisions apply:
1. Prohibition on encroachments, including fill, new construction, substantial improvements, and other development unless certification by a registered professional engineer or architect is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge; and
 2. If the conditions of subparagraph 1. above are met, all new construction and substantial improvements shall comply with all other applicable flood hazard reduction provisions of this section.
- (e) Shallow Flooding Areas - With Depth Designations. Shallow flooding zones appear on Flood Insurance Rate Maps (FIRM), with depth designations, wherever such flooding occurs on sloping water surfaces such as alluvial fan flow, wave wash after the wave has broken, etc. In these areas, the following provisions apply:
1. New construction and substantial improvements of residential structures within these zones shall have the lowest floor (including basement) elevated above the highest adjacent grade of the building site, to at least one foot above the depth number specified on the FIRM. Where appropriate, such structures shall be elevated above the crown of the nearest road, to at least one foot above the depth number specified in the FIRM. Where hazardous velocities are noted on the FIRM, consideration shall be given to

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mitigating the effects of these velocities through proper construction techniques and methods.

2. New construction and substantial improvements of nonresidential structures within these zones shall either:
 - a. Have the lowest floor (including basement) elevated above the highest adjacent grade of the building site to at least one foot above the depth number specified on the FIRM; or
 - b. Together with attendant utility and sanitary facilities, be completely floodproofed to at least one foot 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.
 - c. Adequate drainage paths shall be provided around structures on slopes to guide floodwaters around and away from proposed structures.

Where hazardous velocities are noted on the FIRM, consideration shall be given to mitigating the effects of these velocities through proper construction techniques and methods.

(Section 9.6709, see chart at front of Chapter 9 for legislative history from 2/26/01 through 6/1/02; amended by Ordinance No. 20353, enacted November 28, 2005, effective January 1, 2006.)

9.6710 Geological and Geotechnical Analysis.

- (1) **Purpose of Geological and Geotechnical Analyses.** The purpose of geological and geotechnical analyses is to ensure that public and private facilities in developments in areas of known or potential unstable soil conditions are located, designed, and constructed in a manner that provides for public health, safety, and welfare.
- (2) **Geological and Geotechnical Analysis Required.** Except for those activities exempted under EC 9.6710(3) Exemptions from Geological and Geotechnical Requirements, a geological and geotechnical analysis, prepared by an Oregon licensed Engineering Geologist or an Oregon licensed Civil Engineer with geotechnical experience, conforming with standards, procedures and content as defined in the Standards for Geological and Geotechnical Analysis adopted by the city in the manner set forth in EC 2.019 City Manager - Administrative and Rulemaking Authority and Procedures, is required for any of the following:
 - (a) All proposed tentative planned unit development, site review, or subdivision applications on properties with slopes equal to or greater than 5%.
 - (b) All proposed development that includes dedication or construction of a public street or alley or the construction of public drainage systems or public wastewater sewers.
- (3) **Exemptions from Geological and Geotechnical Analysis Requirements.** The following activities are exempt from the requirements of this section:
 - (a) Maintenance, operation, reconstruction of existing streets, driveways, and utility lines, provided soil disturbance is limited to a standard utility

