

ORDINANCE NO. 469**AN ORDINANCE ESTABLISHING FLOOD DAMAGE PREVENTION REQUIREMENTS WITHIN THE CITY OF MADRAS, OREGON, REPEALING ORDINANCE NO. 360 AND DECLARING AN EMERGENCY.**

WHEREAS, the City of Madras, Oregon, has been notified by the Federal Emergency Management Agency of the need to update its Flood Plain Ordinance; and

WHEREAS, the Legislature of the State of Oregon has in ORS 227 delegated the responsibility to local government units to adopt regulations designed to promote the public units to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry, and

WHEREAS, the Madras City Planning Commission has reviewed the proposed Flood Plain Ordinance on June 20, 1989, and recommended said ordinance to the council.

NOW, THEREFORE, the City of Madras ordains as follows:

SECTION 1.0 FINDINGS OF FACT.

- A. The flood hazard areas of the City of Madras are subject to periodic inundation which results in loss of life and property, health, and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.
- B. These flood losses are caused by the cumulative effect of obstructions in areas of special flood hazards which increase flood heights and velocities, and when inadequately anchored, damage uses in other areas. Uses that are inadequately floodproofed, elevated, or otherwise protected from flood damage also contribute to the flood loss.

[Section 1.0, Subsections A and B, Added by Ordinance No. 735, Passed by Council on May 10, 2005.]

1.1 Statement of Purpose. It is the purpose of this ordinance to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

- A. To protect human life and health;
- B. To minimize expenditure of public money and costly flood control projects;
- C. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- D. To minimize prolonged business interruptions;
- E. To 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;
- F. To 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;
- G. To ensure that potential buyers are notified that property is in an area of special flood hazard; and
- H. To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

1.2 Methods of Reducing Flood Losses

In order to accomplish its purposes, this ordinance includes methods and provisions for:

8-4.1.2

Madras Ordinances

8-4.3.1

- A. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
- B. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- C. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;
- D. Controlling filling, grading, dredging, and other development which may increase flood damage; and
- E. Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or may increase flood hazards in other areas.

[Subsection 1.2, and Sub-Items A-E, Added by Ordinance No. 735, Passed by Council on May 10, 2005.]

SECTION 2.0 DEFINITIONS.

Moved to Section 8-12.1.3 (Ordinance No. 723).

[The definitions under Section 2.0 deleted from Ordinance No. 469 by Ordinance No. 735, Passed by Council on May 10, 2005.]

SECTION 3.0 GENERAL PROVISIONS.

- 3.1 Lands to Which This Ordinance Applies.** This ordinance shall apply to all areas of special flood hazards within the jurisdiction of the City of Madras.

3.2 Basis for Establishing the Areas of Special Flood Hazard. The areas of special flood hazard identified by the Federal Insurance Administration and in a scientific and engineering report entitled "The Flood Insurance Study for the City of Madras", dated July 17, 1989, with accompanying Flood Insurance Maps is hereby adopted by reference and declared to be a part of this ordinance. The Flood Insurance Study is on file at City Hall.

3.3 Abrogation and Greater Restrictions. This ordinance is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this ordinance and another ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

[Added by Ordinance No. 735, Passed by Council on May 10, 2005.]

3.4 Interpretation. In the interpretation and application of this ordinance, all provisions shall be:

- A. Considered as minimum requirements;
- B. Liberally construed in favor of the governing body; and
- C. Deemed neither to limit or repeal any other powers granted under State Statutes.

[Subsection 3.4, and Sub-Items A, B, and C, Added by Ordinance No. 735, Passed by Council on May 10, 2005.]

3.5 Warning and Disclaimer of Liability. The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations.

Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This ordinance does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This ordinance shall not create liability on the part of the City of Madras, any officer or employee thereof, or the Federal Insurance Administration, for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made hereunder.

[Added by Ordinance No. 735, Passed by Council on May 10, 2005.]

SECTION 4.0 ADMINISTRATION.

4.1 Establishment of Development Permit.

- 4.1-1 Development Permit Required.** A development permit shall be obtained before construction or development begins within any area of special flood hazard established in Section 3.2. The permit shall be for any structures including manufactured homes, as set forth in the "Definitions", Section 8-12.1.3 and for all development including fill and other activities, also as set forth in the "Definitions", Section 8-12.1.3.

[Amended by Ordinance No. 735, Passed by Council on May 10, 2005.]

- 4.1-2 Application for Development Permit.** Application for a development permit shall be made on forms furnished by the City of Madras 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 proposed structures, fill, storage of materials, drainage facilities, and the location of the foregoing. Specifically, the following information is 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 floodproofed;
- C. Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meets the floodproofing criteria in Section 8-4.5.2-2; and
- D. Description of the extent to which a watercourse will be altered or relocated as a result of proposed development.

[Item 4.1-2, and Sub-items A, B, C, and D, Added by Ordinance No. 735, Passed by Council on May 10, 2005.]

- 4.2 Designation of the City Administrator.** The City Administrator or designee is hereby appointed to administer and implement this ordinance by granting or denying development permit applications in accordance with its provisions.

[Amended by Ordinance No. 735, Passed by Council on May 10, 2005.]

- 4.3 Duties and Responsibilities of the City Administrator.** Duties of the City Administrator or designee shall include, but not be limited to:

[Amended by Ordinance No. 735, Passed by Council on May 10, 2005.]

4.3-1 Permit Review.

- A. Review all development permits to determine that the permit requirements of this ordinance have been satisfied.

- B. Review all development permits to determine that all necessary permits have been obtained from those federal, state, or local governmental agencies from which prior approval is required.
- C. Review all development permits to determine if the proposed development is located in the floodway. If located in the floodway, assure that the encroachment provisions of Section 5.3(1) are met.

4.3-2 Use of Other Base Flood Data. When base flood elevation data has not been provided in accordance with Section 8-4.3.2, Basis for Establishing the Areas of Special Flood Hazard, the city administrator or designee shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal, state, or other source, in order to administer Section 8-4.5.2, Specific Standards, and 8-4.5.3, Floodways.

[Amended by Ordinance No. 735, Passed by Council on May 10, 2005.]

4.3-3 Information to be Obtained and Maintained.

- A. Where the base flood elevation data is provided through the Flood Insurance Study or required as in Section 8-4.4.3-2 obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement.
- B. For all new or substantially improved floodproofed structures:
 - 1. Verify and record the actual elevation (in relation to mean sea level), and
 - 2. Maintain the floodproofing certifications required in Section 8-4.4.3-3.

C. Maintain for public inspection all records pertaining to the provisions of this ordinance.

[Item 4.3-3, Sub-items A, and B (2), Amended by Ordinance No. 735, Passed by Council on May 10, 2005.]

4.3-4 Alteration of Watercourses.

- A. Notify adjacent communities, the Department of Land Conservation and Development, and the Division of State Lands prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.
- B. Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood carrying capacity is not diminished.

4.3-5 Interpretation of FIRM Boundaries. Make interpretations, where needed, as to exact location of the boundaries of the areas of special flood hazards (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 the interpretation. Such appeals shall be granted consistent with the standards of Section 60.6 of the rules and regulations of the National Flood Insurance Program (44 CFR 59-76).

SECTION 5.0 PROVISIONS FOR FLOOD HAZARD REDUCTION.

5.1 General Standards. In all areas of special flood hazards, the following standards are required:

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

8-4.5.1

Madras Ordinances

8-4.5.1-2

- B. All manufactured homes must 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).

5.1-1 Anchoring

- A. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.
- B. All manufactured homes must 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 (See FEMA's "Manufactured Home Installation in Flood Hazard Areas" guidebook for additional techniques).

[Item 5.1-1, Sub-items A and B, Added by Ordinance No. 735, Passed by Council on May 10, 2005.]

5.1-2 Construction Materials and Methods.

- A. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
- B. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.
- C. 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

8-4.5.1-2

Madras Ordinances

8-4.5.1-5

entering or accumulating within the components during conditions of flooding.

5.1-3 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.

5.1-4 Subdivision Proposals.

- A. All subdivision proposals shall be consistent with the need to minimize flood damage;
- B. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage;
- C. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; and

[Sub-item D, formerly referred to as 4, deleted by Ordinance No. 735, Passed by Council on May 10, 2005.]

5.1-5 Review of Building Permits. Where elevation data is not available either through the Flood Insurance Study or from another authoritative source (Section 8-4.4.3-2), applications for building permits shall be

8-4.5.1-5

Madras Ordinances

8-4.5.2-1

reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness is a local judgment and includes use of historical data, high water marks, photographs of past flooding, etc., where available. Failure to elevate at least two (2) feet above grade in these zones may result in higher insurance rates.

[Amended by Ordinance No. 735, Passed by Council on May 10, 2005.]

- 5.2 Specific Standards.** In all areas of special flood hazards where base flood elevation data has been provided as set forth in Section 8-4.3.2, Basis for Establishing the Areas of Special Flood Hazard or Section 8-4.4.3-2, Use of Other Base Flood Data, the following provisions are required:

[Amended by Ordinance No. 735, Passed by Council on May 10, 2005.]

5.2-1 Residential Construction.

- A. New construction and substantial improvement of any residential structure shall have the lowest floor including basement, elevated to one (1) foot above base flood elevation.

[Amended by Ordinance No. 735, Passed by Council on May 10, 2005)

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

1. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.
2. The bottom of all openings shall be no higher than one foot above grade.
3. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

5.2-2 Nonresidential Construction. New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated to the level of the base flood elevation; or, together with attendant utility and sanitary facilities, shall:

[Amended by Ordinance No. 735, Passed by Council on May 10, 2005.]

- A. Be floodproofed so 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;
- C. 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 will be provided to the official as set forth in Section 8-4.4.3-3(B).

[Amended by Ordinance No. 735, Passed by Council on May 10, 2005.]

8-4.5.2-2

Madras Ordinances

8-4.5.2-3

- D. Nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the lowest floor as described in 8-4.5.2-1(B).

[Amended by Ordinance No. 735, Passed by Council on May 10, 2005.]

- E. 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 construction to the base flood level will be rated as one foot below the level).

[Amended by Ordinance No. 735, Passed by Council on May 10, 2005.]

5.2-3 Manufactured Homes.

- A. All manufactured homes to be placed or substantially improved within zones A1-A30, and AE on the community's FIRM on sites:

1. Outside of a manufactured home park or subdivision;
2. In a new manufactured home park or subdivision;
3. In an expansion to an existing manufactured home park or subdivision, or
4. 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 lowest floor of the manufactured home is elevated one foot above the base flood elevation and be securely anchored to an adequately designed foundation system to resist floatation, collapse and lateral movement.

8-4.5.2-3

Madras Ordinances

8-4.5.2-4

- B. Be placed or substantially improved on sites in an existing manufactured home park or subdivision within Zones A1-A30, and AE on the community's FIRM, that are not subject to the above manufactured home provisions, be elevated so that either:
1. The lowest floor of the manufactured home is elevated one (1) foot above the base flood elevation, or
 2. The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and be securely anchored to an adequately designed foundation system to resist flotation, collapse, and lateral movement.

[Item 5.2-3, Sub-Items A (1, 2, 3 and 4), and B (1 and 2) added by Ordinance No. 735, Passed by Council on May 10, 2005.]

5.2-4 Crawlspace Construction for Structures (residential, commercial, etc.). Crawlspace are commonly used as a method of elevating buildings in Special Flood Hazard Areas to or above the Base Flood Elevation. General National Flood Insurance Program requirements that apply to all crawlspaces that have enclosed areas or floors below the Base Flood Elevation include the following:

1. The building must be designed and adequately anchored to resist flotation, collapse, and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy. Hydrostatic loads and the effects of buoyancy can usually be addressed through the required openings discussed in Section 5.2-4(2). Because of hydrodynamic loads, crawlspace construction is not recommended in areas with flood velocities greater than 5 feet per second unless the design is reviewed by a qualified

design professional, such as a registered architect or professional engineer. Contact Jefferson County Building Division for recommendations of other types of foundations for these areas.

2. The crawlspace is an enclosed area below the Base Flood Elevation and, as such, must have openings that equalize hydrostatic pressures by allowing for the automatic entry and exit of floodwaters. The bottom of each flood vent opening can be no more than one (1) foot above the lowest adjacent exterior grade.
3. Any building utility systems within the crawlspace must be elevated above the Base Flood Elevation or designed so that floodwaters cannot enter or accumulate within system components during flood conditions. Ductwork must be placed above the Base Flood Elevation or sealed to prevent the entry of floodwaters.
4. Portions of the building below the Base Flood Elevation 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 Base Flood Elevation.
5. The interior grade of a crawlspace below the Base Flood Elevation must not be more than 2 feet below the lowest adjacent exterior grade.
6. 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 4 feet at any point.
7. There must be an adequate drainage system that removes floodwaters from the interior area of the crawlspace. The enclosed area should be drained within a reasonable time after a flood event. The type of drainage system will vary because of

the site gradient and other drainage characteristics, such as soil types.

8. The velocity of floodwaters at the site should not exceed 5 feet per second for any crawlspace. For velocities in excess of 5 feet per second, other foundation types should be used as directed by the Jefferson County Building Official.
9. Below-grade crawlspace construction in accordance with the requirements listed above will not be considered basements.
10. Buildings located in areas subject to ponding or low-velocity flows must primarily address issues related to hydrostatic loads on the crawlspace foundation, removal of floodwater and sediment from the crawlspace area, and other National Flood Insurance Program floodproofing requirements, such as protecting or elevating utilities and using flood-resistant materials.
11. Crawlspace construction is not recommended in A zones with high-velocity floodwaters (greater than 5 feet per second). Other types of foundations, such as open pile or column foundations, that allow floodwaters to flow freely beneath the building are recommended for these areas.
12. Utilities, access, and ventilation openings. Utility systems shall be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment, and other service facilities that are designed and/or located to prevent water from entering or accumulating within the components during conditions of flooding.
 - i. Access and ventilation openings shall be provided to the crawlspace area according to the local building codes and regulations.

[Item 5.2-4, Sub-Items 1-12(i) added by Ordinance No. 735, Passed by Council on May 10, 2005.]

8-4.5.2-4

Madras Ordinances

8-4.5.2-4

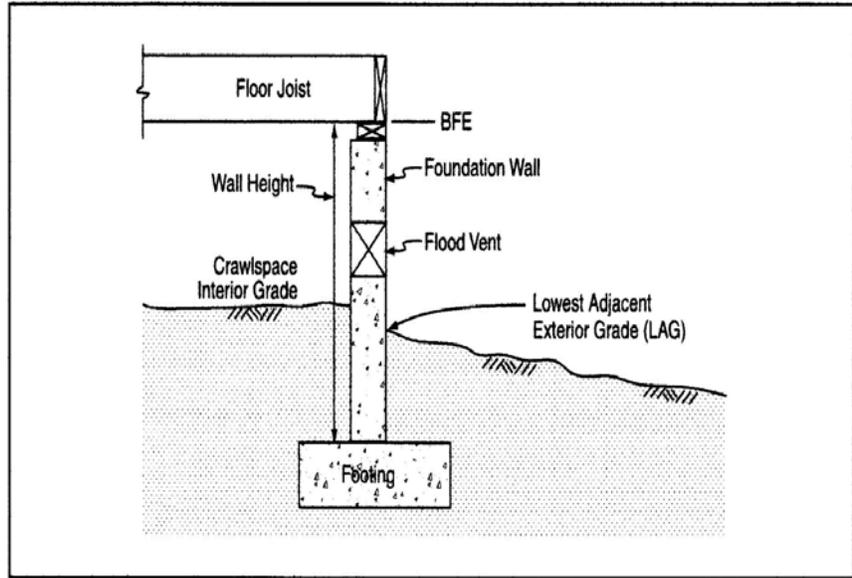


Figure 1 Preferred crawlspace construction.

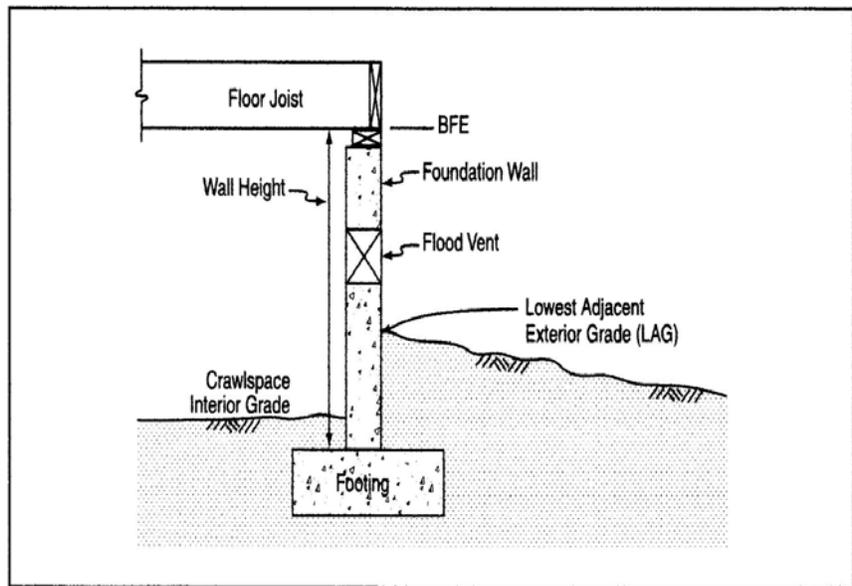


Figure 2 Below-grade crawlspace construction.

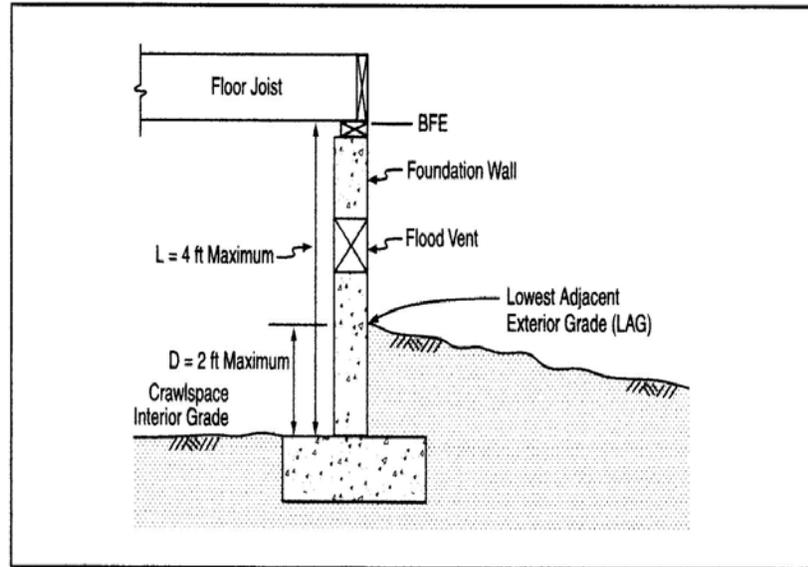


Figure 3 Requirements regarding below-grade crawlspace construction.

[Figure 1, Preferred Crawlspace Construction; Figure 2, Below-Grade Crawlspace Construction, and Figure 3, Requirements Regarding Below-Grade Crawlspace Construction, added by Ordinance No. 735, Passed by Council on May 10, 2005.]

5.2-5 Recreational Vehicles. Recreational vehicles placed on sites within Zones A1-A30, and AE on the community's FIRM either:

- A. Be on the site for fewer than 180 consecutive days,
- B. 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
- C. Meet the requirements of 8-4.5.2-3 above and the elevation and anchoring requirements for manufactured homes.

8-4.5.3

Madras Ordinances

8-4.5.3-2

[Item 5.2-5, Recreational Vehicles, Sub-Items A, B, and C, added by Ordinance No. 735, Passed by Council on May 10, 2005.]

5.3 Floodways

[Added by Ordinance No. 735, Passed by Council on May 10, 2005.]

5.3-1 Willow Creek Main Channel. Located within areas of special flood hazard established in Section 8-4.3.2 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

- A. Prohibit encroachments, including fill, new construction, substantial improvements, and other development unless certification by a registered professional engineer is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.
- B. If Section 8-4.5.3-1 is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Section 8-4.5.0, Provisions for Flood Hazard Reduction.

[Item 5.3-1, Sub-Items A and B, Amended by Ordinance No. 735, Passed by Council on May 10, 2005.]

5.3-2 Willow Creek Overflow.

- A. The break-out point for overflow into the Willow Creek Overflow from the main Willow Creek channel shall not be modified in any manner which would result in increased stream flow in the main channel.

- B. Solid fills such as road fills perpendicular to the flow of water are prohibited in the floodway.
- C. Piecemeal placement of any fill in the floodway shall not result in a continuous fill perpendicular to flow and shall comply with Section 8-4.5.3-1.

[Amended by Ordinance No. 735, Passed by Council on May 10, 2005.]

- D. Any fill that is allowed in the floodway must be confined to the actual building site; other means of elevating structures are encouraged (such as stem wall, posts, piles, etc.) and shall comply with Section 8-4.5.3-1.

[Amended by Ordinance No. 735, Passed by Council on May 10, 2005.]

- E. To the maximum extent feasible, fills in the floodway must be compensated by cuts or extraction or like amounts of materials.
- F. The highest part of any lot in the floodway should be utilized as the building site. Lots partially in the floodway and flood fringe area must utilize the flood fringe portion for placement of improvements.
- G. Whenever feasible, new structures must be placed in the hydraulic shadow of the existing encroachment and shall comply with Section 8-4.5.0.

[Amended by Ordinance No. 735, Passed by Council on May 10, 2005.]

SECTION 6.0 PENALTY.

Any person who shall violate any of the provisions of this ordinance or fails to comply therewith or who shall build in violation of any of the specifications

provided in this ordinance or fail to comply with any order made by the city of Madras, or a court of competent jurisdiction, shall be punishable by a fine of not more than \$1,000.

The imposition of one penalty for any violation shall not excuse the violation or permit it to continue; and all such persons shall be required to correct or remedy such violation or defects within a reasonable time, and when not otherwise specified, each ten (10) days of prohibited conditions shall constitute a separate offense.

[Section 6.0 added by Ordinance No. 494, passed September 24, 1991.]

EMERGENCY CLAUSE

WHEREAS, the peace, health, safety and general welfare of the citizens of Madras, Oregon, are involved and in order to properly safeguard the same, there is and exists the necessity and emergency for immediate regulation as herein provided;

NOW, THEREFORE, an emergency is hereby declared to exist and this ordinance shall be in full force and effect from and after its passage.

Passed by the council and approved by the mayor July 11, 1989.