EXHIBIT A

TITLE 4
CHAPTER 4

FLOOD DAMAGE PREVENTION

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4-4-1: STATUTORY AUTHORITY: The State of Oregon has in ORS 197.175 delegated the responsibility to local governmental units to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. Therefore, the City of Florence does ordain as follows:

4-4-1-1: FINDINGS OF FACT:

A. The flood hazard areas of the City of Florence are subject to periodic inundation which may result 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 may be caused by the cumulative effect of obstructions in special flood hazard areas which increase flood heights and velocities, and when inadequately anchored, cause damage in other areas. Uses that are inadequately floodproofed, elevated, or otherwise protected from flood damage also contribute to flood loss.

4-4-1-2: PURPOSE: It is the purpose of this chapter 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.

H. To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

I. To preserve natural and beneficial floodplain functions.

4-4-2: METHODS OF REDUCING FLOOD LOSSES: In order to accomplish its purposes, this chapter includes methods and provisions for:

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

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

C. Controlling the alteration of natural flood plains, stream channels and natural protective barriers, which help accommodate or channel flood waters.

D. Controlling filling, grading, dredging and other development which may increase flood damage.

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

F. Employing a standard of “no net loss” of natural and beneficial floodplain functions.

4-4-3: DEFINITIONS:

4-4-3-1: CONSTRUCTION OF WORDS: Unless specifically defined below, words or phrases used in this chapter shall be interpreted so as to give them the meaning they have in common usage and to give this chapter its most reasonable applications.

The definitions in Section 4-4-3-2 are specific only to this chapter.

4-4-3-2: GENERAL DEFINITIONS:

ANCILLARY FEATURES	Features of a development that are not directly related to the primary purpose of the development.
APPEAL	A request for a review of the interpretation of any provision of this ordinance or a request for a variance.

AREA OF SHALLOW FLOODING	~~The land in the floodplain subject to a one percent (1%) or greater chance of flooding to an average depth of one to three feet in a given year, where a clearly defined channel does not exist, where the path of flooding is unpredictable, and where velocity flow may be evident. It is designated on the Flood Insurance Rate Map (FIRM) as AH, AR/AO, AR/AH or VO. Such flooding is characterized by ponding or sheet flow.~~ A designated Zone AO, AH, AR/AO or AR/AH on a community's Flood Insurance Rate Map (FIRM) with a one percent or greater annual chance of flooding to an average depth of one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable, and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.
AREA OF SPECIAL	The land in the floodplain subject to a one percent (1%) or greater chance of flooding in any given year. It is shown on the Flood Insurance Rate Map (FIRM) as Zone A, AO, AH, A1-30, AE, A99, AR, V, ~~VO,~~ V1-30, or VE. "Special flood hazard area" is synonymous in meaning with the phrase "area of special flood hazard".
BASE FLOOD	The flood having a one percent chance of being equaled or exceeded in any given year.
BASE FLOOD ELEVATION (BFE)	The elevation to which floodwater is anticipated to rise during the base flood.
BASEMENT	For the purposes of this chapter: any area of building having its floor subgrade (below ground level) on all sides.
BREAKAWAY WALL	A wall that is not part of the structural support of a building and is 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.
COASTAL HIGH HAZARD AREA	An area of special flood hazard extending from offshore to the inland limit of a primary frontal dune along an open coast and any other area subject to high velocity wave action from storms or seismic sources.
CRITICAL FACILITY	A facility for which even a slight chance of flooding might be too great. Critical facilities include, but are not limited to schools, nursing homes, hospital, police, fire and emergency response installations, installations which produce, use or store hazardous materials or hazardous waste.
DEVELOPMENT	Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.

DIAMETER BREAST HEIGHT (DBH) Diameter of the trunk of a tree measured at four and one-half (4.5) feet above ground level at the base of the tree. The DBH is determined by measuring the circumference of the tree trunk at four and one-half feet above ground level at the base of the tree and

dividing by three point one four (3.14) and rounding up. The following shall be used when encountering complicated situations:

- Trees existing on slopes are measured at the mean ground level at the base of the tree (Figure TBD).
- When the trunk forks at or less than four and one-half (4.5) feet from the ground, the circumference at the smallest part of the trunk below the lowest branch is used. (Figure TBD).
- Multi-stemmed trees that are connected six (6) inches or higher above ground level are measured by taking the circumference of all the trunks, and then adding the total diameter of the largest trunk to half (½) the diameter of each additional trunk.
- Multi-stemmed trees that are connected below six (6) inches above ground level are measured as individual trees. (Figure TBD).
- A tree with a branch or bump on the trunk interfering with circumference measurement shall be measured immediately above the point where bumps or branches cease to affect the diameter of the trunk. (Figure TBD)
- Trees that are leaning are measured four and half (4.5) feet up the stem in the direction of the lean (Figure TBD).

ELEVATED BUILDING — 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.

FEMA — Federal Emergency Management Agency

FILL — Placement of any materials such as soil, gravel, crushed stone, or other materials that change the elevation of the floodplain. The placement of fill is considered "development."

FISH ACCESSIBLE SPACE — The volumetric space available to an adult or juvenile individual of the identified 16 ESA-listed fish to access.

FISH EGRESS-ABLE SPACE — The volumetric space available to an adult or juvenile individual of the identified 16 ESA-listed fish to exit or leave from.

FLOOD OR FLOODING — A. 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.
3. Mudslides (i.e., mudflows) which are proximately caused by flooding as defined in paragraph A-2 of this definition and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.

B. The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in paragraph A-1 of this definition.

FLOOD ELEVATION STUDY	An examination, evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation and determination of mudslide (i.e., mudflow) and/or flood-related erosion hazards.
FLOOD INSURANCE RATE MAP (FIRM)	The official map of a community, on which the Federal Insurance RATE Administrator has delineated both the special hazard areas and the risk premium zones applicable to the community. A FIRM that has been made available digitally is called a Digital Flood Insurance Rate Map (DFIRM).
FLOOD INSURANCE STUDY	See “Flood elevation study” (FIS)
FLOODPLAIN STORAGE CAPACITY	The volume of floodwater that an area of floodplain can hold during the one-percent annual chance flood.
FLOOD PROOFING	Any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate risk of flood damage to real estate or improved real property, water and sanitary facilities, structures, and their contents.
FLOODWAY	The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. Also referred to as "Regulatory Floodway."
FLOODPLAIN ADMINISTRATOR:	The community official designated by title to administer and enforce the floodplain management regulations.
FOOTPRINT	The existing measurements of a structure related to the three floodplain functions and their proxies. The footprint related to floodplain storage refers to the volumetric amount of developed space measured from the existing ground level to the BFE, and the footprint related to water quality refers to the area of impervious surface that the structure creates.
FREEBOARD	A one-foot factor of safety above flood level to compensate for unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as the hydrological effect of urbanization of the watershed.
FUNCTIONALLY DEPENDENT USE	A use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, and does not include long term storage or related manufacturing facilities.

GREEN INFRASTRUCTURE	Use of natural or human-made hydrologic features to manage water and provide environmental and community benefits. Green infrastructure uses management approaches and technologies that use, enhance, and/or mimic the natural hydrologic cycle processes of infiltration, evapotranspiration, and reuse. At a large scale, it is an interconnected network of green space that conserves natural systems and provides assorted benefits to human populations. At a local scale, it manages stormwater by infiltrating it into the ground where it is generated using vegetation or porous surfaces, or by capturing it for later reuse. Green infrastructure practices can be used to achieve no net loss of pervious surface by creating infiltration of stormwater in an amount equal to or greater than the infiltration lost by the placement of new impervious surface.
HABITAT RESTORATION ACTIVITIES	Activities with the sole purpose of restoring habitats that have only temporary impacts and long-term benefits to habitat. Such projects cannot include ancillary structures such as a storage shed for maintenance equipment, must demonstrate that no rise in the BFE would occur as a result of the project and obtain a CLOMR and LOMR as applicable, and have obtained any other required permits (e.g., CWA Section 404 permit).
HAZARD TREES	Standing dead, dying, or diseased trees or ones with a structural defect that makes it likely to fail in whole or in part and that present a potential hazard to a structure or as necessary to remove or alleviate an immediate danger to life or property, to restore utility service, or to reopen a public street to traffic.
HIGHEST ADJACENT GRADE	The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.
HISTORIC STRUCTURE	Any structure that is: A. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register; B. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district; or c. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior.

D. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:

1. By an approved state program as determined by the Ssecretary of the Iinterior; or

2. Directly by the Ssecretary of the Iinterior in states without approved programs.

HYDRAULICALLY EQUIVALENT ELEVATION	A location (e.g., a site where no net loss standards are implemented) that is approximately equivalent to another (e.g., the impacted site) relative to the same 100-year water surface elevation contour or base flood elevation. This may be estimated based on a point that is along the same approximate line perpendicular to the direction of flow.
HYDROLOGICALLY CONNECTED	The interconnection of groundwater and surface water such that they constitute one water supply and use of either results in an impact to both.
IMPERVIOUS SURFACE	A surface that cannot be penetrated by water and thereby prevents infiltration and increases the amount and rate of surface water runoff, leading to erosion of stream banks, degradation of habitat, and increased sediment loads in streams. Such surfaces can accumulate large amounts of pollutants that are then "flushed" into local water bodies during storms and can also interfere with recharge of groundwater and the base flows to water bodies.
LOW IMPACT DEVELOPMENT	An approach to land development (or redevelopment) that works with nature to manage stormwater as close to its source as possible. It employs principals such as preserving and recreating natural landscape features and minimizing effective imperviousness to create functional and appealing site drainage that treats stormwater as a resource rather than a waste product. Low Impact Development refers to designing and implementing practices that can be employed at the site level to control stormwater and help replicate the predevelopment hydrology of the site. Low Impact Development helps achieve no net loss of pervious surface by infiltrating stormwater in an amount equal to or greater than the infiltration lost by the placement of new impervious surface. LID is a subset of green infrastructure.
LETTER OF MAP CHANGE (LOMC):	Means an official FEMA determination, by letter, to amend or revise effective Flood Insurance Rate Maps and Flood Insurance Studies. The following are categories of LOMCs:

a. Conditional Letter of Map Amendment (CLOMA): A CLOMA is FEMA's comment on a proposed structure or group of structures that would, upon construction, be located on existing natural ground above the base (1-percent-cannual-chane) flood

elevation on a portion of a legally defined parcel of land that is partially inundated by the base flood.

b. Conditional Letter of Map Revision (CLOMR): A CLOMR is FEMA's comment on a proposed project that would, upon construction, affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodway, the effective base flood elevations, or the special flood hazard area.

c. Conditional Letter of Map Revision based on Fill (CLOMR-F): A CLOMR-F is FEMA's comment on a proposed project that would, upon construction, result in a modification of the special flood hazard area through the placement of fill outside the existing regulatory floodway.

d. Letter of Map Amendment (LOMA): An official amendment, by letter, to the Flood Insurance Rate Maps (FIRMs) based on technical data showing that an existing structure, parcel of land or portion of a parcel of land that is naturally high ground, (i.e., has not been elevated by fill) above the base flood, that was inadvertently included in the special flood hazard area.

e. Letter of Map Revision (LOMR): A LOMR is FEMA's modification to an effective Flood Insurance Rate Map (FIRM), or Flood Boundary and Floodway Map (FBFM), or both. LOMRs are generally based on the implementation of physical measures that affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodway, the effective base flood elevations, or the SFHA. The LMOR officially revises the FIRM or FBFM, and sometimes the Flood Insurance Study (FIS) report, and, when appropriate, includes a description of the modifications. The LOMR is generally accompanied by an annotated copy of the affected portions of the FIRM, FBFM, or FIS report.

f. Letter of Map Revision based on Fill (LOMR-F): A LOMR-F is FEMA's modification of the special flood hazard area shown on the Flood Insurance Rate Map (FIRM) based on the placement of fill outside the existing regulatory floodway.

g. PMR: A PMR is FEMA's physical revision and republication of an effective Flood Insurance Rate Map (FIRM) or Flood Insurance Study (FIS) report. PMRs are generally based on physical measures that affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodway, the effective baes flood elevations, or the special flood hazard area.

LOWEST FLOOR — The lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage, in an area other than a basement area, is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of the

	applicable non-elevation design requirements Section 4-4-6-2 of this chapter.
MANUFACTURED HOME	A structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term "manufactured home" does not include a "recreational vehicle" and is synonymous with “manufactured dwelling”.
MANUFACTURED HOME PARK OR SUBDIVISION	A parcel (or contiguous parcels) of land divided into two or more manufactured dwelling lots for rent or sale.
MEAN HIGHER-HIGH WATER	The average of the higher-high water height of each tidal day observed over the National Tidal Datum Epoch.
MEAN SEA LEVEL	For purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which Base Flood Elevations shown on a community's Flood Insurance Rate Map are referenced.
NEW CONSTRUCTION	For floodplain management purposes, “new construction” means structures for which the “start of construction” commenced on or after the effective date of a floodplain management regulation adopted by the City of Florence and includes any subsequent improvements to such structures.
NO NET LOSS	A standard where adverse impacts must be avoided or offset through adherence to certain requirements so that there is no net change in the function from the existing condition when a development application is submitted to the state, tribal, or local jurisdiction. The floodplain functions of floodplain storage, water quality, and vegetation must be maintained.
OFFSITE	Mitigation occurring outside of the project area.
ONSITE	Mitigation occurring within the project area.
ORDINARY HIGH WATER MARK	The line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation; the presence of litter and debris; or other appropriate means that consider the characteristics of the surrounding areas.
PERVIOUS SURFACE	Surfaces that allow rain and snowmelt to seep into the soil and gravel below. Pervious surface may also be referred to as permeable surface.
QUALIFIED PROFESSIONAL	Persons who have a minimum of a bachelor’s degree in wildlife or fisheries habitat biology, with a minimum of three years’ experience as a practicing fish or wildlife habitat biologist; an Oregon Licensed Professional Engineer; or other qualified professional, as determined by the director.

REACH	A section of a stream or river along which similar hydrologic conditions exist, such as discharge, depth, area, and slope. It can also be the length of a stream or river (with varying conditions) between major tributaries or two stream gages, or a length or river for which the characteristics are well described by readings at a single stream gage.
RECREATIONAL VEHICLE	A vehicle which is: a. Built on a single chassis; b. 400 square feet or less when measured at the largest horizontal projection; c. Designed to be self-propelled or permanently towable by a light duty truck; and d. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.
RIPARIAN	Of, adjacent to, or living on, the bank of a river, lake, pond, or other water body.
RIPARIAN BUFFER ZONE (RBZ)	The outer boundary of the riparian buffer zone is measured from the ordinary high water line of a fresh waterbody (lake; pond; ephemeral, intermittent, or perennial stream) or mean higher-high water line of a marine shoreline or tidally influenced river reach to 170 feet horizontally on each side of the stream or 170 feet inland from the MHHW. The riparian buffer zone includes the area between these outer boundaries on each side of the stream, including the stream channel. Where the RBZ is larger than the special flood hazard area, the no net loss standards shall only apply to the area within the special flood hazard area.
RIPARIAN BUFFER ZONE FRINGE	The area outside of the RBZ and floodway but still within the SFHA.
SILVICULTURE	The art and science of controlling the establishment, growth, composition, health, and quality of forests and woodlands.
START OF CONSTRUCTION	Includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundation or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling,

	floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.
STRUCTURE	For floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured dwelling.
SUBSTANTIAL DAMAGE	Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent (50%) of the market value of the structure before the damage occurred.
SUBSTANTIAL IMPROVEMENT	Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage," regardless of the actual repair work performed. The term does not, however, include either: a. 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 b. Any alteration of a "historic structure," provided that the alteration will not preclude the structure's continued designation as a "historic structure."
UNDEVELOPED SPACE	The volume of flood capacity, fish-accessible space, and fish egress-able space from the existing ground to the Base Flood Elevation that has not been reduced by development.
VARIANCE	A grant of relief by the City of Florence from the terms of a flood plain management regulation.
VIOLATION	The failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in this ordinance is presumed to be in violation until such time as that documentation is provided.
WATER DEPENDENT	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 operation.
WATER SURFACE ELEVATION:	The height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929, or other datum, of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

4-4-4: GENERAL PROVISIONS:

4-4-4-1: LANDS TO WHICH THIS CHAPTER APPLIES: This Chapter shall apply to all areas of special flood hazards within the jurisdiction of the City of Florence, hereinafter known as the City.

4-4-4-2: BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD: The special flood hazard areas identified by the Federal Insurance Administrator in a scientific and engineering report entitled "The Flood Insurance Study (FIS) for Lane County, Oregon and Incorporated Area, June 5, 2020, with accompanying Flood Insurance Rate Maps (FIRMs) are hereby adopted by reference and declared to be a part of this ordinance. The FIS and FIRM panels are on file at Florene City Hall, 250 Highway 101, Florence, Oregon.

4-4-4-2-1: COORDINATION WITH SPECIALTY CODES ADOPTED BY THE STATE OF OREGON BUILDING CODES DIVISION: Pursuant to the requirement established in ORS 455 that the City of Florence administers and enforces the State of Oregon Specialty Codes, the City of Florence does hereby acknowledge that the Oregon Specialty Codes contain certain provisions that apply to the design and construction of buildings and structures located in Special Flood Hazard Areas (SFHA). Therefore, this ordinance is intended to be administered and enforced in conjunction with the Oregon Specialty Codes.

4-4-4-3: COMPLIANCE: All development within special flood hazard areas is subject to the terms of this ordinance and required to comply with its provisions and all other applicable regulations. No structure or land shall hereafter be constructed, located, extended, converted or altered without full compliance with the terms of this chapter and other applicable regulations. Violations of the provisions of this chapter by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions), shall constitute a misdemeanor. Any person who violates this chapter or fails to comply with any of its requirements shall be prosecuted as set forth in 6-1-1-B of this code. Nothing herein contained shall prevent the City of Florence from taking such other lawful action as is necessary to prevent or remedy any violation.

4-4-4-4: ABROGATION AND GREATER RESTRICTIONS: This Chapter is not intended to repeal, abrogate or impair any existing easements, covenants or deed restrictions. However, where this chapter and another City Code title, chapter or section, easement, covenant or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

4-4-4-5: INTERPRETATION: In the interpretation and application of this chapter, all provisions shall be:

A. Considered as minimum requirements.

B. Liberally construed in favor of the governing body

C. Deemed neither to limit nor repeal any other powers granted under State statutes.

4-4-4-6: WARNING AND DISCLAIMER OF LIABILITY: The degree of flood protection required by this chapter 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 Chapter 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 Chapter shall not create liability on the part of the City, any officer or employee thereof, or the Federal Insurance Administration, for any flood damages that result from reliance on this chapter or any administrative decision lawfully made thereunder.

4-4-5 ADMINISTRATION:

4-4-5-1: ESTABLISHMENT OF DEVELOPMENT PERMIT: A development permit shall be obtained before construction or development begins within any area laterally (horizontally) within any area of special flood hazard established in Section 4-4-4-2. The development permit shall be required for all structures, including manufactured dwellings and for all other development, including fill and other development activities, as defined in Section 4-4-3. An a~~A~~pplication for a development permit is reviewed under the Type 1 procedure in FCC 10-1 and shall be made on forms furnished by the Floodplain Administrator 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

1. In riverine flood zones, the proposed elevation, in relation to mean sea level, of the lowest floor (including basement) and all attendant utilities of all new and substantially improved structures.
2. In coastal flood zones (V zones and coastal A zones), the proposed elevation in relation to mean sea level of the bottom of the lowest structural member of the lowest floor (excluding pilings and columns) of all structures, and whether such structures contain a basement.

B. Elevation in relation to mean sea level to which any non-residential structure has been floodproofed.

C. Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in Section 4-4-6-2-B.

D. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

E. Base Flood Elevation data for subdivision proposals or other development when required per sections 4-4-5-3-1 and 4-4-6-1-E of this chapter.

F. Substantial improvement calculation for any improvement, addition, reconstruction, renovation, or rehabilitation of an existing structure.

G. The amount and location of any fill or excavation activities proposed.

H. A narrative statement that explains how the application satisfies each and all of the relevant criteria for Section 4-4-7 of this chapter and those in FCC 10-7 and FCC 10-19 as applicable.

I. Additional information may be required under the specific application requirements for each approval.

4-4-5-2: DESIGNATION OF THE FLOODPLAIN ADMINISTRATOR: The ~~Planning~~Community Development Director or their designee is hereby appointed to administer, implement and enforce this chapter by granting or denying development permits in accordance with its provisions. The Floodplain Administrator may delegate authority to implement these provisions.

4-4-5-3: DUTIES AND RESPONSIBILITIES:

A. FLOODPLAIN ADMINISTRATOR: Duties of the Floodplain Administrator shall include, but are not limited to:

1. Permit Review
   a. Review all development permits to determine that the permit requirements of this chapter 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. Copies of such permits shall be maintained on file.

c. Review all development permits to determine if the proposed development is located in a floodway. If located in the floodway assure that the floodway provisions of this ordinance in section 4-4-6-2-E are met.

~~c.~~d. Determine whether the proposed development activity complies with the no net loss standards in Section 4-4-7.

2. Use of Other Base Flood Data. When base flood elevation data has not been provided in accordance with Section 4-4-4-2, Basis for Establishing the Areas of Special Flood Hazard, the Floodplain Administrator shall obtain, review and reasonably utilize any base flood elevation data available from a Federal, State, or other source, in order to administer Section 4-4-6-2, Specific Standards, and 4-4-6-3, Encroachments. For subdivision proposals or other development proposals Base Flood Elevation data shall be generated for all proposals of 50 lots or 5 acres, whichever is the lesser.

3. Information to be Obtained and Maintained

a. Where base flood elevation data is provided through the Flood Insurance Study or required as in Section 4-4-5-3-A-2: obtain and record the elevation (in relation to mean sea level) of the natural grade of the building site for a structure prior to the start of construction and the placement of any fill and ensure that the requirements of Sections 4-4-6-2-E, 4-4-6-5-A-6, and 4-4-5-3-A-1-b are adhered to.

b. For all new or substantially improved floodproofed structures:

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

ii. Maintain the floodproofing certifications required in Section 4-4-5-1-B.

iii. Maintain all Elevation Certificates (EC).

iv. Obtain, record, and maintain the elevation (in relation to mean sea level) to which the structure and all attendant utilities were floodproofed.

v. Record and maintain all variance actions, including justification for their issuance.

vi. Obtain and maintain all hydrologic and hydraulic analyses performed as required under section 4-4-6-2-E.

vii. Record and maintain all Substantial Improvement and Substantial Damage calculations and determinations.

c. Documentation of how no net loss standards have been met (see Section 4-4-7)

~~c.~~d. Maintain for public inspection all records pertaining to the provisions of this chapter.

4. Review all development permits to determine if the proposed development activity includes the placement of fill or excavation.

5. Alteration of Watercourses

a. Notify adjacent communities, the Department of Land Conservation and Development, and other appropriate state and federal agencies, prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration. This notification shall be provided by the applicant to the Federal Insurance Administration as a Letter of Map Revision (LOMR) along with either:

i. A proposed maintenance plan to assure the flood carrying capacity within the altered or relocated portion of the watercourse is maintained; or

ii. Certification by a registered professional engineer that the project has been designed to retain its flood carrying capacity without periodic maintenance.

b. The applicant shall be required to submit a Conditional Letter of Map Revision (CLOMR) if the proposed floodway encroachments increase the base flood elevation and/or the proposed development increases the base flood elevation by more than one foot in areas where FEMA has provided base flood elevations but no floodway.

c. Ensure compliance with the requirements for alteration of a watercourse in Section 4.2.3.3 and 5.1.1 of the State of Oregon Model Flood Hazard Management Ordinance effective August 9, 2019.

6. Require that the applicant shall notify FEMA within six (6) months of project completion when an applicant has obtained a Conditional Letter of Map Revision (CLOMR) from FEMA, or when development altered a watercourse, modified floodplain boundaries, or modified Base Flood Elevations (BFE). This notification to FEMA shall be provided as a Letter of Map Revision (LOMR).

7. 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 as provided in Section 4-4-5-4.

8. Community Boundary Alterations. The Floodplain Administrator shall notify the Federal Insurance Administrator in writing whenever the boundaries of the community have been modified by annexation or the community has otherwise assumed authority or no longer has authority to adopt and enforce floodplain management regulations for a particular area, to ensure that all Flood Hazard Boundary Maps (FHBM) and Flood Insurance Rate Maps (FIRM) accurately represent the community's boundaries. Include within such notification a copy of a map of the community suitable for reproduction, clearly delineating the new corporate limits or new area for which the community has assumed or relinquished floodplain management regulatory authority.

9. Communication
    a. Communicate to the Building Official the applicable flood zone, base flood elevation (BFE) and additional freeboard required by the City for building permits for lowest floor and mechanicals.

    b. Acknowledge Endangered Species Act (ESA) compliance for LOMR-F applications.

    c. Assist Federal Emergency Management Agency (FEMA) in preparation and revision of flood maps.

    d. Verify BFEs estimated by non-state and federal agencies.

    e. Assist residents in obtaining information on flood hazards, map data, flood insurance and proper construction measures.

    f. Notify landowners in writing of insurance implications when issuing a variance approved under 4-4-5-4. Retain documentation of notification.

B. BUILDING OFFICIAL: Duties of the Building Official shall include, but are not limited to:

    a. Ensure the lowest floor is elevated to or above BFE + freeboard established by the Floodplain Administrator.

b. Ensure mechanical equipment and ducting is installed to or above BFE + freeboard established by Floodplain Administrator.

c. Ensure installation of adequate flood openings.

d. Ensure use of flood resistant materials below BFE.

e. Ensure enclosed areas below BFE are outfitted to allow only parking, building access and storage.

f. Obtain an As-built Elevation Certificate (EC) recording the actual elevation (in relation to mean sea level) of the lowest floor (including basement), all attendant utilities, and the location and height of all flood openings, prior to the final inspection, and provide that EC to the Floodplain Administrator.

10. Make substantial damage and improvement calculations.

11. Inspect development to assure compliance with local flood hazard regulations.

4-4-5-4: VARIANCE AND APPEALS PROCEDURE:

A. Variance Procedure

1. The Planning Commission, as established by the City, shall hear and decide on variances from the requirements of this chapter as a Type 3 land use application in accordance with the procedures in FCC 10-1, using the criterion included in this chapter. Those criteria, listed in FCC 10-5 Zoning Adjustments and Variances are not applicable to variance reviews from the requirements of this chapter. Applications that included a review for either FCC 10-7 or FCC 10-19 are also subject to the variance criteria of FCC 10-5 for those chapters' requirements.

2. The Planning Commission shall consider all technical evaluations, all relevant factors, standards specified in other sections of this chapter, and:

a. The danger that materials may be swept onto other lands to the injury of others.

b. The danger of 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.

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.

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.

3. Upon consideration of the factors of Section 4-4-5-4-A-2, and the purposes of this chapter, the Planning Commission may attach such conditions to the granting of variances as it deems necessary to further the purposes of this chapter.

4. Criteria~~onditions~~ for Variances

a. Variances may be issued for the repair or rehabilitation of structures listed on the National Register of Historic Places, upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.

b. Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one- half (1/2) acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, in conformance with the provisions of Sections 4-4-5-4-B-4 and 5. As the lot size increases beyond the one-half (1/2) acre, the technical justification required for issuing the variance increases.

~~b.~~c. Variances may be issued by a community for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use provided that the criteria of Section 4-4-5-4-B-2 are met, and the structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.

~~c.~~d. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

~~d.~~e. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

~~e.~~f. Variances shall only be issued upon:

~~i. A showing of good and sufficient cause;~~

~~ii.~~i. A determination that strict or literal interpretation and enforcement of the specified regulations~~failure to grant the variance~~ would result in practical difficulty or unnecessary physical~~exceptional~~ hardship to the applicant.

ii. A determination that the granting of a 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 laws or ordinances.

~~iii.~~ A determination there are exceptional or extraordinary circumstances or conditions applicable to the property involved which do not apply generally to other properties in the special flood hazard area, or the granting of the variance will not constitute a grant of special privilege inconsistent with the limitations on other properties in the special flood hazard area.

iii. It is demonstrated that the development will not result in net loss of the following proxies for the three floodplain functions in the SFHA: undeveloped space; pervious surface; or trees 6 inches dbh or greater (see Section 4-4-7 and associated options in Table 4-4-7).

~~1. Variances may be issued by a community for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use provided that the criteria of Section 4-4-5-4-B-2 are met, and the structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.~~

~~Variances shall not be issued unless it is demonstrated that the development will not result in net loss of the following proxies for the three floodplain functions in the SFHA: undeveloped space; pervious surface; or trees 6 inches dbh or greater (see Section 4-4-7 and associated options in Table 1).~~

5. Variance Notification. Any applicant to whom a variance is granted shall be given written notice that the issuance of a variance to construct a structure below the Base Flood Elevation will result in increased premium rates for flood insurance and that such construction below the base flood elevation increases risks to life and property. Such notification and a record of all variance actions, including justification for their issuance shall be maintained in accordance with Section 4-4-5-3-A-3.

B. Appeals Procedure

1. The Planning Commission shall hear and decide appeals when it is alleged there is an error in any requirement, decision or determination made by the Floodplain Administrator in the enforcement or administration of this chapter. They may affirm, reverse or amend the decision and may reasonably grant approval subject to conditions necessary to carry out the requirements of this chapter and other ordinances as applicable.

2. A written appeal shall be filed with the Floodplain Administrator within fifteen (15) days after receiving notification of the decision of the Floodplain Administrator. Such appeal shall state the grounds for appealing such decision and setting forth the alleged error in detail.

~~2.~~3. A Planning Commission's decision may be appealed to the City Council using the appeal notice, petition, procedures and timelines in FCC 10-1 Zoning Administration.

4-4-6: PROVISIONS FOR FLOOD HAZARD PROTECTION:

4-4-6-1: GENERAL STANDARDS: In all areas of special flood hazards the no net loss standards (see Section 4-4-7) and the following standards are required:

A. Anchoring and Construction Materials and Methods.

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

2. All new or substantially improved manufactured dwellings shall be anchored per Section 4-4-6-2-F.

3. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.

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

C. Water Supply, Sanitary Sewer, and On-site Waste Disposal Systems

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.

3. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding consistent with siting standards administered by the Oregon Department of Environmental Quality.

D. Electrical, Mechanical, Plumbing, and Other Equipment: Electrical, heating, ventilation, plumbing, and air-conditioning equipment, duct systems and other equipment and service facilities shall be elevated above the base flood level + freeboard established by the Floodplain Administrator, or shall be designed and installed to prevent water from entering or accumulating within the components and to resist hydrostatic and hydrodynamic loads and stresses, including the effects of buoyancy, during conditions of flooding. In addition, electrical, heating, ventilating, air-conditioning, plumbing, duct systems, and other equipment and service facilities shall:

1. If replaced as part of a substantial improvement shall meet all the requirements of this section.

2. Not be mounted on or penetrate through breakaway walls.

E. Tanks

1. Underground tanks shall be anchored to prevent flotation, collapse and lateral movement under conditions of the base flood.

2. Above-ground tanks shall be installed at or above the base flood level + freeboard established by the floodplain administrator, or shall be anchored to prevent flotation, collapse, and lateral movement under conditions of the base flood.

3. In coastal flood zones (V Zones or coastal A Zones) when elevated on platforms, the platforms shall be cantilevered from or knee braced to the building or shall be supported on foundations that conform to the requirements of the State of Oregon Specialty Code.

F. Subdivision Proposals

1. All new subdivision proposals and other proposed new developments (including proposals for manufactured dwelling parks and subdivisions) greater than 50 lots or 5 acres, whichever is the lesser, shall include within such proposals, Base Flood Elevation data.

2. All new subdivision proposals and other proposed new developments (including proposals for manufactured dwelling parks and subdivisions) 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 minimize or eliminate flood damage.

c. Have adequate drainage provided to reduce exposure to flood hazards.

~~c.~~d. Comply with no net loss standards in section 4-4-7.

G. Review of Building Permits. Where elevation data is not available either through the Flood Insurance Study or from another authoritative source, applications for building permits shall be 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 feet above grade in these zones may result in higher insurance rates.

H. Structures Located in Multiple or Partial Flood Zones. In compliance with the State of Oregon Specialty Codes:

1. When a structure is located in multiple flood zones on the community's Flood Insurance Rate Maps (FIRM) the provisions for the more restrictive flood zone shall apply.

2. When a structure is partially located in a Special Flood Hazard Area (SFHA), the entire structure shall meet the requirements for new construction and substantial improvements.

4-4-6-2: SPECIFIC STANDARDS FOR RIVERINE (INCLUDING ALL NON-COASTAL) FLOOD ZONES: These specific standards shall apply to all new construction and substantial improvements in addition to the General Standards contained in Section 4-4-6-1 of this chapter and the no net loss standards (see Section 4-4-7).~~.~~

A. Flood Openings. All new construction and substantial improvements with fully enclosed areas below the lowest floor (excluding basements) are subject to the following requirements. Enclosed areas below the Base Flood Elevation, including crawl spaces shall:

1. Be designed to automatically equalize hydrostatic flood forces on walls by allowing for the entry and exit of floodwaters.

2. Be used solely for parking, storage, or building access.

3. Be certified by a registered professional engineer or architect or meet or exceed all of the following minimum criteria:

a. A minimum of two openings.

b. The total net area of non-engineered openings shall be not less than one (1) square inch for each square foot of enclosed area, where the enclosed area is measured on the exterior of the enclosure walls.

c. The bottom of all openings shall be no higher than one foot above grade.

d. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they shall allow the automatic flow of floodwater into and out of the enclosed areas and shall be accounted for in the determination of the net open area.

e. All additional higher standards for flood openings in the State of Oregon Residential Specialty Codes Section R322.2.2 shall be complied with when applicable.

B. Garages

1. Attached garages may be constructed with the garage floor slab below the Base Flood Elevation (BFE) in riverine flood zones, if the following requirements are met:

    a. If located within a floodway the proposed garage must comply with the requirements of Section 4-4-6-3.

    b. The floors are at or above grade on not less than one side.

    c. The garage is used solely for parking, building access, and/or storage.
    d. The garage is constructed with flood openings in compliance with Section 4-4-6-3, to equalize hydrostatic flood forces on exterior walls by allowing for the automatic entry and exit of floodwater.

    e. The portions of the garage constructed below the BFE are constructed with materials resistant to flood damage.

    f. The garage is constructed in compliance with the standards in Section 4-4-6-1; and

    g. The garage is constructed with electrical, and other service facilities located and installed so as to prevent water from entering or accumulating within the components during conditions of the base flood.

2. Detached garages must be constructed in compliance with the standards for appurtenant structures in Section 4-4-6-2-H or non-residential structures in Section 4-4-6-2-H, depending on the square footage of the garage.

C. Riverine (Non-Coastal) Special Flood Hazard Areas with Base Flood Elevations. In addition to the general standards listed in Section 4-4-6-3, the following specific standards shall apply in Riverine (non-coastal) special flood hazard areas with Base Flood Elevations (BFE): Zones A1-A30, AH, and AE.

1. Before Regulatory Floodway: In areas where a regulatory floodway has not been designated, no new construction, substantial improvement, or other development (including fill) shall be permitted within Zones A1-30 and AE on the community's Flood Insurance Rate Map (FIRM), unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community and will not result in the net loss of flood storage volume. When determined that structural elevation is not possible and where the placement of fill cannot meet the above standard, impacts to undeveloped space must adhere to the no net loss standards in section 4-4-7.

D. Residential Construction

1. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated at or above the Base Flood Elevation + freeboard established by the Floodplain Administrator.

2. Enclosed areas below the lowest floor shall comply with the flood opening requirements in Section 4-4-6-3.

E. Non-Residential Construction. New construction and substantial improvement of any commercial, industrial, or other non-residential structure shall:

1. Have the lowest floor, including basement elevated at or above the BFE + freeboard established by the Floodplain Administrator. Or, together with attendant utility and sanitary facilities:

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 section based on their development and/or review of the structural design, specifications and plans. Such certifications shall be provided to the Floodplain Administrator as set forth Section 4-4-5-3-A.

2. Non-residential structures that are elevated, not floodproofed, shall comply with the standards for enclosed areas below the lowest floor in Section 4-4-6-3.

3. Applicants floodproofing non-residential buildings shall be notified that flood insurance premiums will be based on rates that are one (1) foot below the floodproofed level (e.g. a building floodproofed to the base flood level will be rated as one (1) foot below).

F. Manufactured Dwellings

1. New or substantially improved manufactured dwellings supported on solid foundation walls shall be constructed with flood openings that comply with Section 4-4-6-1.

2. The bottom of the longitudinal chassis frame beam shall be at or above Base Flood Elevation.

3. New or substantially improved manufactured dwellings shall be anchored to prevent flotation, collapse, and lateral movement during the base flood. 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).

4. Electrical crossover connections shall be a minimum of twelve (12) inches above Base Flood Elevation (BFE).

G. Recreational Vehicles. Recreational vehicles placed on sites are required to either:

1. Be on the site for fewer than 180 consecutive days;

2. 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

3. Meet the requirements of Section 4-4-6-2-F, including the anchoring and elevation requirements for manufactured dwellings.

H. Appurtenant (Accessory) Structures. Relief from elevation or floodproofing requirements for residential and non-residential structures in Riverine (Non-Coastal) flood zones may be granted for appurtenant structures that meet the following requirements:

1. Appurtenant structures located partially or entirely within the floodway must comply with requirements for development within a floodway found in Section 4-4-6-3.

2. Appurtenant structures must only be used for parking, access, and/or storage and shall not be used for human habitation.

3. In compliance with State of Oregon Specialty Codes, appurtenant structures on properties that are zoned residential are limited to one-story structures less than 200 square feet, or 400 square feet if the property is greater than two (2) acres in area and the proposed appurtenant structure will be located a minimum of 20 feet from all property lines. Appurtenant structures on properties that are zoned as non-residential are limited in size to 120 square feet.

4. The portions of the appurtenant structure located below the Base Flood Elevation must be built using flood resistant materials.

5. The appurtenant structure must be adequately anchored to prevent flotation, collapse, and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy, during conditions of the base flood.

6. The appurtenant structure must be designed and constructed to equalize hydrostatic flood forces on exterior walls and comply with the requirements for flood openings in Section 4-4-6-2-F.

7. Appurtenant structures shall be located and constructed to have low damage potential.

8. Appurtenant structures shall not be used to store toxic material, oil, or gasoline, or any priority persistent pollutant identified by the Oregon Department of Environmental Quality unless confined in a tank installed incompliance with Section 4-4-6-1-C and D.

9. Appurtenant structures shall be constructed with electrical, mechanical, and other service facilities located and installed so as to prevent water from entering or accumulating within the components during conditions of the base flood.

4-4-6-3: FLOODWAYS: Located within the special flood hazard areas established in Section 4-4-4-2 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of the floodwaters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

A. Prohibit encroachments, including fill, new construction, substantial improvements, and other development within the adopted regulatory floodway unless:

    1. Certification by a registered professional civil engineer is provided demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment shall not result in any increase in flood levels within the community during the occurrence of the base flood discharge; or

    2. A community may permit encroachments within the adopted regulatory floodway that would result in an increase in base flood elevations, provided that a Conditional Letter of Map Revision (CLOMR) is applied for and approved by the Federal Insurance Administrator, and the requirements for such revision as established under Volume 44 of the Code of Federal Regulations, section 65.12 are fulfilled and the encroachment(s) comply with the no net loss standards in section 4-4-7.

B. If the requirements of Section 4-4-6-3-A are satisfied, all new construction, substantial improvements, and other development shall comply with all other applicable flood hazard reduction provisions of Section 4-4-6.

4-4-6-4: STANDARDS FOR SHALLOW FLOODING AREAS: Shallow flooding areas appear on FIRMs as AO zones with depth designations or as AH zones with Base Flood Elevations. For AO zones the base flood depths range from one (1) to three (3) feet above ground where a clearly defined channel does not exist, or where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is usually characterized as sheet flow.

For both AO and AH zones, adequate drainage paths are required around structures on slopes to guide floodwaters around and away from proposed structures.

A. Standards for AH Zones. Development within AH Zones must comply with the standards in Sections 4-4-6-1, 4-4-6-2, and 4-4-6-4.

B. Standards for AO Zones. In AO zones, the following provisions apply in addition to the requirements in Sections 4-4-6-1 and 4-4-6-2:

1. New construction and substantial improvement of residential structures and manufactured dwellings within AO zones shall have the lowest floor, including basement, elevated above the highest grade adjacent to the building, at minimum to or above the depth number specified on the Flood Insurance Rate Maps (FIRM) Base Flood Elevation + freeboard established by the Floodplain Administrator (at least two (2) feet if no depth number is specified). For manufactured dwellings the lowest floor is considered to be the bottom of the longitudinal chassis frame beam.

2. New construction and substantial improvements of non-residential structures within AO zones shall either:

    a. Have the lowest floor (including basement) elevated above the highest adjacent grade of the building site, at minimum to or above the depth number specified on the Flood Insurance Rate Maps (FIRMS) + freeboard established by the Floodplain Administrator (at least two (2) feet if no depth number is specified); or

    b. Together with attendant utility and sanitary facilities, be completely floodproofed to or above the depth number specified on the FIRM + freeboard established by the Floodplain Administrator (a minimum of two (2) feet above the highest adjacent grade if no depth number is specified), so that any space below that level is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. If this method is used, compliance shall be certified by a registered professional engineer or architect as stated in Section 4-4-6-2-E-4.

3. Recreational vehicles placed on sites within AO Zones on the community's Flood Insurance Rate Maps (FIRM) shall either:

    a. Be on the site for fewer than 180 consecutive days, and

    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 elevation requirements of Section 4-4-6-4-B-1 and the anchoring and other requirements for manufactured dwellings of Section 4-4-6-1-A-2.

4. In AO zones, new and substantially improved appurtenant structures must comply with the standards in Section 4-4-6-2-H.

5. In AO zones, enclosed areas beneath elevated structures shall comply with the requirements in Section 4-4-6-2-A.

4-4-6-5: SPECIFIC STANDARDS FOR COASTAL HIGH HAZARD FLOOD ZONES: Located within special flood hazard areas established in section 3.2 are Coastal High Hazard Areas, designated as Zones V1-V30, VE, V, or coastal A zones as identified on the FIRMs as the area between the Limit of Moderate Wave Action (LiMWA) and the Zone V boundary. These areas have special flood hazards associated with high velocity waters from surges and, therefore, in addition to meeting all provisions of this ordinance and the State of Oregon Specialty Codes, the following provisions shall apply in addition to the general standards provisions in Section 4-4-6-1.

A. Development Standards

1. All new construction and substantial improvements in Zones V1-V30 and VE, V, and coastal A zones (where base flood elevation data is available) shall be elevated on pilings and columns such that:

    a. The bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated a minimum of one foot above the base flood level; and

    b. The pile or column foundation and structure attached thereto is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Water loading values used shall be those associated with the base flood. Wind loading values used shall be those specified by the State of Oregon Specialty Codes;

2. A registered professional engineer or architect shall develop or review the structural design, specifications and plans for the construction, and shall certify that the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the provisions of this section.

3. Obtain the elevation (in relation to mean sea level) of the bottom of the lowest horizontal structural member of the lowest floor (excluding pilings and columns) of all new and substantially improved structures and whether or not such structures contain a basement. The floodplain administrator shall maintain a record of all such information in accordance with Section 4-4-5-3-A-3.

4. Provide that all new construction and substantial improvements have the space below the lowest floor either free of obstruction or constructed with non-supporting breakaway walls, open wood lattice-work, or insect screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system.

    For the purpose of this section, a breakaway wall shall have a design safe loading resistance of not less than 10 and no more than 20 pounds per square foot. Use of breakaway walls which exceed a design safe loading resistance of 20 pounds per square foot (either by design or when so required by local or state codes) may be permitted only if a registered professional engineer or architect certifies that the designs proposed meet the following conditions:

    a. Breakaway wall collapse shall result from water load less than that which would occur during the base flood; and

    b. If breakaway walls are utilized, such enclosed space shall be useable solely for parking of vehicles, building access, or storage. Such space shall not be used for human habitation.

    c. Walls intended to break away under flood loads shall have flood openings that meet or exceed the criteria for flood openings in Section 4-4-6-2-A.

5. The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components (structural and nonstructural). Maximum water loading values to be used in this determination shall be those associated with the base flood. Maximum wind loading values used shall be those specified by the State of Oregon Specialty Codes.

6. Prohibit the use of fill for structural support of buildings.

7. All new construction shall be located landward of the reach of mean high tide.

8. Prohibit man-made alteration of sand dunes which would increase potential flood damage.

9. All structures, including but not limited to residential structures, non-residential structures, appurtenant structures, and attached garages shall comply with all the requirements of Section 4-4-6-5.

   A. Floodproofing of non-residential structures is prohibited.

   B. Manufactured Dwelling Standards for Coastal High Hazard Zones: All manufactured dwellings to be placed or substantially improved within Coastal High Hazard Areas (Zones V, V1-30, VE, or Coastal A) shall meet the following requirements:

      1. Comply with all of the standards within Section 4-4-6-5;

      2. The bottom of the longitudinal chassis frame beam shall be elevated to a minimum of one foot above the Base Flood Elevation (BFE); and

      3. Electrical crossover connections shall be a minimum of 12 inches above the BFE.

   C. Recreational Vehicle Standards for Coastal High Hazard Zones: Recreational Vehicles within Coastal High Hazard Areas (Zones V, V1-30, VE, or Coastal A) shall either:

      1. Be on the site for fewer than 180 consecutive days, and

      2. 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

      3. Meet the permit requirements of Section 4.0 and the requirements for manufactured dwellings in Section 4-4-6-5-B.

   D. Tank Standards for Coastal High Hazard Zones: Tanks shall meet the requirements of Section 4-4-6-1-E

4-4-7: STANDARDS FOR PROTECTION OF SFHA FLOODPLAIN FUNCTIONS.

A. Purpose. FEMA's 2024 Draft Oregon Implementation Plan identifies proxies that provide measurable actions that can prevent the no net loss of the parent floodplain functions. These proxies include undeveloped space, pervious surfaces, and trees to account for a no net loss in respective floodplain functions of floodplain storage, water quality, and vegetation. Mitigation of these proxies must be completed to ensure compliance with no net loss standards. No net loss applies to the net change in floodplain functions as compared to existing conditions at the time of proposed development and mitigation must be addressed to the floodplain function that is

receiving the detrimental impact. The standards described below apply to all special flood hazard areas as defined in FCC 4-4-3-2.

B. No Net Loss Standards

1. No net loss of the proxies for the floodplain functions of floodplain storage, water quality, and vegetation is required for development in the special flood hazard area that would reduce undeveloped space, increase impervious surface, or result in a loss of trees that are six inches diameter breast height or greater. No net loss can be achieved by first avoiding negative effects to floodplain functions to the degree possible, then minimizing remaining effects, then replacing and/or otherwise compensating for, offsetting, or rectifying the residual adverse effects to the three floodplain functions.

    a. Prior to the issuance of any development authorization, the applicant shall:

        i. Demonstrate a legal right by the project applicant to implement the proposed activities to achieve no net loss (e.g., property owner agreement);
        ii. Establish financial security acceptable to the City, such as a warranty bond, in the amount of 12 percent of the original no net loss mitigation costs to be maintained for a minimum of 5 years for the maintenance and monitoring of all projects subject to no net loss;
        iii. Include a management plan that identifies the responsible site manager and contact information, stipulates what activities are allowed on site, identifies the maintenance and operation methods of mitigated systems and elements, and requires the posting of signage identifying dedicated areas as a mitigation area. The management plan shall be reviewed and approved by the city and recorded with the county the property is located.

    b. Prior to final building inspection approval or issuance of a certificate of occupancy, whichever applies as the final city action, off-site mitigation areas shall be protected from development and encroachment through a recorded exclusive, perpetual easement granted by the property owner of the land for which the off-site mitigation is to be located, dedicating the area on the property for mitigation purposes in perpetuity. If the mitigation property is outside of the city's jurisdiction the easement shall be filed with the respective county or city planning and building departments.

2. Compliance with no net loss for undeveloped space or impervious surface is preferred to occur prior to the loss of habitat function but, at a minimum, shall occur concurrent with the loss. Mitigation for undeveloped space, impervious surface and tree removal shall be completed prior to final inspection approval or certificate of occupancy as applicable. Where a temporary occupancy or conditional final inspection approval is issued pending completion of no net loss mitigation, a 25 percent increase in the delayed mitigation action (replacement area and/or replacement trees) shall be added for each year no net loss implementation is delayed.

3. No net loss must be provided within, in order of preference: (1) the lot or parcel that floodplain functions were removed from, (2) the same reach of the waterbody where the development is proposed, or (3) the special flood hazard area within the same hydrologically connected area as the proposed development. Table 4-4-7 presents the no net loss mitigation ratios, which increase based on the preferences listed above.

C. Undeveloped Space. Development proposals shall not reduce the fish-accessible space, the fish egress-able space, and flood storage volume of the undeveloped space within the special flood hazard area. A development proposal with an activity that would impact undeveloped space shall achieve no net loss of fish-accessible and egress-able space and flood storage volume.

1. Lost undeveloped space must be replaced with compensatory undeveloped space that is fish-accessible and egress-able based on the mitigation ratios in Table 4-4-7.

2. The compensatory undeveloped space must be hydrologically connected to the waterbody that is the flooding source.

3. The compensatory undeveloped space must be designed so that there is no increase in velocity.

4. The compensatory undeveloped space shall be hydraulically equivalent located within the equivalent 1-foot elevation or the same flood elevation bands as identified as follows:

    a. Ordinary High Water Mark to 10-year
    b. 10-year to 25-year,
    c. 25-year to 50-year,
    d. 50-year to 100-year

D. Impervious Surfaces. Impervious surfaces shall be mitigated through any of the following options:

1. The development must not result in a net increase in impervious surface area within the SFHA through the application of the mitigation ratios prescribed in Table 4-4-7; or

2. The development must use low impact development or green infrastructure to infiltrate and treat stormwater produced by the new impervious surface, as certified by a qualified professional; or

3. If the above methods are not feasible and certified by a qualified professional, the development must retain stormwater to ensure no increase in runoff peak volume or flow and to maximize infiltration, and treatment is required to minimize pollutant loading. Stormwater retention must meet the requirements in subsection F-3 below.

E. Trees. Development shall result in no net loss of trees 6-inches diameter breast height (dbh) or greater within the special flood hazard area. See the definition in this chapter for calculating dbh.

1. Trees of or exceeding six-inches dbh that are removed from the RBZ, Floodway, or RBZ-fringe must be replaced at the mitigation ratios in Table 4-4-7 and planted within the special flood hazard area.

2. Replacement trees used to meet mitigation requirements must be native species that would occur naturally as identified in the Environmental Protection Agency designated Level III ecoregion of the Oregon Coast Range impact area. A qualified professional arborist shall provide a statement that the selected mitigation tree species meet the environmental and habitat functions for the area planted.

3. Replacement trees used to meet mitigation requirements shall be of the same type removed (conifer, broadleaf evergreen, deciduous). Replacement evergreen trees shall be sized a minimum of five feet in height and deciduous trees shall be sized a minimum of one and three quarters inches in diameter at diameter breast height

4. Replacement trees used to meet mitigation requirements shall be irrigated with temporary or permanent irrigation system for a minimum of three years. The system shall be identified in the management plan required in section 4-4-7-B-1.

5. The management plan required in section 4-4-7-B-1 shall include maintenance and replacement actions and timelines to include but not limited to monitoring, irrigation, browsing prevention, staking, fertilizing, trimming, and replacement in the event of death by natural or human causes. This management plan shall be drafted by a qualified professional arborist licensed by the State of Oregon.

F. Stormwater Management. Any development proposal that cannot mitigate as specified in (C)(1)-(2) above must include the following:

1. Water quality (pollution reduction) treatment for post-construction stormwater runoff from any net increase in impervious area; and

2. Water quantity treatment (retention or detention facilities).

3. Retention and detention facilities must:

a. Limit discharge to no greater than the pre-development peak discharge rate (i.e., the discharge rate of the site based on its natural groundcover and grade before any development occurred) in accordance with the Flow Control requirements in the City of Florence Stormwater Management Design Manual and FCC 9-5 Stormwater Management Utility.

b. Treat stormwater to remove sediment and pollutants from impervious surfaces such that at least 80 percent of the total suspended solids are removed from the stormwater prior to discharging to the receiving water body.

c. Be designed to not entrap fish.

d. Be designed and certified by a qualified professional.

4. Detention facilities must:

a. Drain to the source of flooding.

b. Be designed and certified by a qualified professional.

5. Stormwater management facilities that serve multiple lots or parcels, including subdivisions, shall have an enforceable operation and maintenance agreement to ensure the system functions as designed. This agreement will include:

a. Access to stormwater treatment facilities at the site by the City of Florence for the purpose of inspection and repair.

b. A legally binding document specifying the parties responsible for the proper maintenance of the stormwater treatment facilities. The agreement will be recorded and bind subsequent purchasers and sellers even if they were not party to the original agreement.

c. For stormwater controls that include vegetation and/or soil permeability, the operation and maintenance manual must include maintenance of these elements to maintain the functionality of the feature.

d. The responsible party for the operation and maintenance of the

e. stormwater facility shall have the operation and maintenance manual on site and available at all times. Records of the maintenance and repairs shall be retained and made available for inspection by the City of Florence for five years.

G. Activities Exempt From No Net Loss Standards. The following activities are not subject to the no net loss standards in this section; however, this subsection does not exempt any activities from otherwise applicable floodplain development requirements.

1. Normal maintenance of structures, such as re-roofing and replacing siding, provided there is no change in the footprint or expansion of the roof of the structure;

2. Normal street, sidewalk, and road maintenance, including filling potholes, repaving, and installing signs and traffic signals, that does not alter contours, use, or alter culverts and is less than six inches above grade. Exempt activities do not include expansion of paved areas;

3. Routine maintenance of landscaping that does not involve grading, excavation, or filling;

4. Routine agricultural practices such as tilling, plowing, harvesting, soil amendments, and ditch cleaning that does not alter the ditch configuration provided the spoils are removed from special flood hazard area or tilled into fields as a soil amendment;

5. Routine silviculture practices (harvesting of trees), including hazardous fuels reduction and hazard tree removal as long as root balls are left in place;

6. Removal of noxious weeds and hazard trees (with root balls left in place), and replacement of non-native vegetation with native vegetation; all actions must meet the additional applicable criteria in FCC 10-19 and 10-7;

7. Normal maintenance of above ground utilities and facilities, such as replacing downed power lines and utility poles provided there is no net change in footprint;

8. Normal maintenance of a levee or other flood control facility prescribed in the operations and maintenance plan for the levee or flood control facility, but not including repair from flood damage, expansion of the prism, expansion of the face or toe or addition of protection on the face or toe with rock armor;

9. Habitat restoration activities;

10. Preemptive removal of documented susceptible trees to manage the spread of invasive species; and

11. Projects that are covered under separate consultations under Section 4(d), 7, or 10 of the Endangered Species Act.

H. Riparian Buffer Zone (RBZ)

1. The Riparian Buffer Zone is measured from the ordinary high-water line of a fresh waterbody (lake; pond; ephemeral, intermittent, or perennial stream) to 170 feet horizontally on each side of the stream or inland of the MHHW. The riparian buffer zone includes the area between these outer boundaries on each side of the stream, including the stream channel.

2. Functionally dependent uses are only subject to the no net loss standards in this section for development in the RBZ. Ancillary features that are associated with but do not directly impact the functionally dependent use in the RBZ (including manufacturing support facilities and restrooms) are subject to the beneficial gain standard in addition to no net loss standards.

3. Any other use of the RBZ requires a greater offset to achieve no net loss of floodplain functions, on top of the no net loss standards described above, through the beneficial gain standard.

4. Under FEMA's beneficial gain standard, an area within the same reach of the project and equivalent to five percent of the total project area within the RBZ shall be planted with native herbaceous, shrub and tree vegetation

Table 4-4-7—No Net Loss Standards

Basic Mitigate Ratios	Undeveloped Space (ft^3)	Impervious Surface (ft^2)	Trees (6"<dbh<20 ")	Trees (20"<dbh<39")	Trees (39"<dbh)
RBZ and Floodway	2:1	1:1	3:1	5:1	6:1
RBZ-Fringe	1.5:1	1:1	2:1	4:1	5:1
Mitigation multipliers					
Mitigation onsite to Mitigation offsite, same reach	100%	100%	100%	100%	100%
Mitigation onsite to Mitigation offsite, different reach, same watershed (5^{th} field)	200%	200%	200%	200%	200%

Notes:

1. Mitigation multipliers of 100% result in the required mitigation occurring at the same value described by the ratios above, while multipliers of 200% result in the required mitigation being doubled.

   For example, if a development would create 1,000 square feet of new impervious surface, then 1,000 square feet of new pervious surface would need to be created.

   However, if only 500 square feet can be created within the same reach, the remaining 500 square feet created within a different reach would need to be double the required

   amount because of the 200 percent multiplier. In other words, another 1,000 square feet of pervious surface would need to be created at the location in the different reach, in addition to the 500 square feet created within the same reach.

2. RBZ impacts must be mitigated in the RBZ, on-site or off-site.

3. Beneficial gain standards in the RBZ in section 4-4-7-H-4 apply in addition to the mitigation ratios in this table.

Amended by Ord. 1, Series 1987
Amended by Ord. 20, Series 1994
Amended by Ord. 9, Series 1999
Amended by Ord. 6, Series 2017 – effective 5.17.17
Amended By Ord. 8, Series 2019 – effective 1.15.20
Amended By Ord. 2, Series 2020 – effective 6.5.20
Amended By Ord. X, Series 2025 – effective 7.31.25