Battle Ground Municipal Code Chapter 18.310 Frequently Flooded Areas, Amended by Ordinance No. 12-06

18.310.020 General provisions.

A. Land to Which This Chapter Applies. This chapter shall apply to all areas of special flood hazards within the jurisdiction of the city of Battle Ground.

B. Basis for Establishing the Areas of Special Flood Hazard. The areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled “The Flood Insurance Study for Battle Ground, Clark County, Washington, and Incorporated Areas” dated October 1, 1980–2012, with accompanying flood insurance rate maps as may be amended, is adopted by reference and declared to be a part of this chapter. The flood insurance study is on file at City Hall.

C. Penalties for Noncompliance. 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 shall constitute a misdemeanor. Any person who violates this chapter or fails to comply with any of its requirements shall, upon conviction thereof, be fined not more than one thousand dollars or imprisoned for not more than thirty days, or both, for each violation and, in addition, shall pay all costs and expenses involved in the case.

Nothing herein contained shall prevent the city council of the city of Battle Ground from taking such other lawful action as is necessary to prevent or remedy any violation. Violation of this chapter shall be deemed to be a nuisance. (Ord. 04-025 § 8 (part), 2004)

18.310.030 Administration.

A. Establishment of Development Permit. A development permit shall be obtained before construction or development begins within any area of special flood hazard established in BGMC 18.310.020. The permit shall be for all structures including manufactured homes and for all other development including fill and other activities as defined in Chapter 18.260 BGMC.

B. Designation of the Floodplain Administrator. The planning director or designee is the floodplain administrator duly authorized and shall be vested with the authority to administer and implement this chapter by granting or denying development permit applications in accordance with its provisions.

C. Application for Development Permit. Application for a development permit shall be made on forms furnished by the city of Battle Ground 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:

1. Elevation in relation to mean sea level, of the lowest floor (including basement) of all structures;

2. Elevation in relation to mean sea level to which any structure has been floodproofed;

3. Certification by a registered professional engineer or architect that the floodproofing methods for a nonresidential structure meet the floodproofing criteria in BGMC 18.310.050(B)(3); and
4. Description of the extent to which a watercourse will be altered or relocated as a result of proposed development.

D. Duties and Responsibilities of the Floodplain Administrator. Duties of the director shall include, but not be 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; and
   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 BGMC 18.300.040(D) 18.310.050(D) are met.

2. Use of Other Base Flood Data. When base flood elevation data has not been provided in accordance with BGMC 18.310.020(B), the floodplain administrator 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 BGMC 18.310.050(B)(1), Specific Standards, Residential Construction, and (B)(3), Specific Standards, Nonresidential Construction.

3. Information to Be Obtained and Maintained. The floodplain administrator shall:
   a. Obtain and record the actual elevation 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 flood-proofed structures:
      i. Verify and record the actual elevation to which the structure was floodproofed, in relation to mean sea level, and
      ii. Maintain the floodproofing certifications required in BGMC 18.310.050(B).
   c. Maintain for public inspection all records pertaining to the provisions of this chapter.

4. Alteration of Watercourses. The floodplain administrator shall:
   a. Notify adjacent communities, and the Clark County public works department, and the Department of Ecology 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.

5. Interpretation of FIRM Boundaries. The city floodplain administrator shall 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 4910.6 60.6 of the rules and regulations of the National Flood Insurance Program (24 CR 1909, etc. 44 CFR 59-76). (Ord. 04-025 § 8 (part), 2004)

18.310.040 Variance procedure.

A. Appeals.

1. The hearing examiner, as established by the city of Battle Ground, shall hear and decide appeals and requests for variances from the requirements of this chapter.

2. The hearing examiner 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.

3. Those aggrieved by the decision of the board of adjustment, or any taxpayer, may appeal such decision to the Clark County superior court for a writ of review within a period of thirty days from the date of decision.

4. In passing upon such applications, the hearing examiner 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 to life and property due to flooding or erosion damage;

c. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;

d. The importance of the services provided by the proposed facility to the community;

e. The necessity to the facility of a waterfront location, where applicable;

f. The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;

g. The compatibility of the proposed use with existing and anticipated development;

h. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;

i. The safety of access to the property in time of flood for ordinary and emergency vehicles;

j. The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters, and the effects of wave action, if applicable, expected at the site; and

k. The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, and streets and bridges.
5. Upon consideration of the factors contained in the preceding section and the purposes of this chapter, the board of adjustment may attach such conditions to the granting of variances as it deems necessary to further the purposes of this chapter.

6. The city shall maintain the records of all appeal actions and report any variances to the Federal Emergency Management Administration upon request.

B. Conditions for Variances.

1. Generally, the only condition under which a variance from the elevation standard may be issued is for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing subsections (A)(4)(a) through (k) of this section have been fully considered. As the lot size increases, the technical justification required for issuing the variance increases.

2. Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in this section.

3. Variances shall not be issued with a designated floodway if any increase in flood levels during the base flood discharge would result.

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

5. Variances shall only be issued upon:

a. A showing of good and sufficient cause;

b. A determination that failure to grant the variance would result in exceptional hardship to the applicant;

c. 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 as identified in BGMC 18.310.050, or conflict with existing local laws or ordinances.

6. Variances, as interpreted in the National Flood Insurance Program, are based on the general zoning law principle that they pertain to a physical piece of property; they are not personal in nature and do not pertain to the structure, its inhabitants, economic or financial circumstances. They primarily address small lots in densely populated residential neighborhoods. As such, variances from the flood elevations should be quite rare.

7. Variances may be issued for nonresidential buildings in very limited circumstances to allow a lesser degree of floodproofing, where it can be determined that such action will have low damage potential, complies with all other variance criteria except BGMC 18.310.050(B)(1), and otherwise complies with BGMC 18.310.050(A)(1) and (2) of the general standards.

8. Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below the base flood elevation, and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation. (Ord. 04-025 § 8 (part), 2004)
18.310.050 Provisions for flood hazard protection.

A. General Standards. In all areas of special flood hazard, the following standards are required.

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 shall be anchored to resist flotation, collapse, or lateral movement by providing over-the-top and frame ties to ground anchors. Specific requirements shall be that:

      i. Anchoring methods may include but are not limited to use of over-the-top ties to be provided at each of the four corners of the manufactured home, with two additional ties per side at intermediate locations, with manufactured homes less than fifty feet long requiring one additional tie per side;

      ii. Frame ties shall be provided at each corner of the home with five additional ties per side at intermediate points, with manufactured homes less than fifty feet long requiring four additional ties per side;

      iii. All components of the anchoring system be capable of carrying a force of four thousand eight hundred pounds; and

      iv. Any additions to the manufactured home be similarly anchored.

   c. An alternative method of anchoring may involve a system designed to withstand a wind force of ninety miles per hour or greater. Certification must be provided to the floodplain administrator that this standard has been met.

   d. Reference should be made to the “Manufactured Home Installation Flood Hazard Areas” guidebook for additional techniques, as produced by the Federal Emergency Management Agency.

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 entering or accumulating within the components during conditions of flooding.

3. Utilities.

   a. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system;
b. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharge from the systems into the floodwaters; and

c. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

d. Water wells shall be located on high ground that is not in the floodway.

4. Subdivision Proposals.

a. All subdivision proposals shall be consistent with the need to minimize flood image;

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

d. Where base flood elevation data has not been provided or is not available from another authoritative source, it shall be generated for subdivision proposals and other proposed developments which contain at least fifty lots or five acres, whichever is less.

5. 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.

6. Maintaining Flood Conveyance. Encroachments, including fill, new construction, replacement structures, substantial improvements and other development shall be prohibited unless certification by a qualified professional is provided demonstrating that through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any net increase in base flood elevation (calculated to the nearest 0.1 foot) or flood velocity during the occurrence of the base flood discharge. At a minimum, such “no-rise” analyses shall include a step-backwater analysis and a conveyance compensation analysis is required in the most recently updated or amended FEMA Region 10 publication, Floodplain Management: A Local Floodplain Administrator’s Guide to the National Flood Insurance Program.

B. Specific Standards. In all areas of special flood hazards where base flood elevation data has been provided as set forth in BGMC 18.310.020(B) or 18.310.030(C D)(2), the following provisions are required:

1. Residential Construction. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated one foot or more above base flood elevation.

2. 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:

a. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided;
b. The bottom of all openings shall be higher than one foot above grade; and
c. Openings may be equipped with screens, louvers, or other coverings or devices; provided that they permit the automatic entry and exit of floodwaters.

3. Nonresidential Construction. New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated one foot or more above the base flood elevation or, together with attendant utility and sanitary facilities, shall:

a. Be floodproofed flood proofed so that below one foot above the base flood level the structure is watertight with walls substantially impermeable to the passage of water;
b. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and
c. Be certified by a 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 review of the structural design, specifications and plans. Certification shall be provided to the city;
d. Nonresidential structures that are elevated, not floodproofed flood proofed, must meet the same standards for space below the lowest floor as described in subsection (B)(2) of this section;
e. Applicants floodproofing flood proofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the floodproofed flood proofed level (e.g., a building floodproofed flood proofed to one foot above the base flood level will be rated as at the base flood level).

4. Manufactured Homes. All manufactured homes to be placed or substantially improved within Zone A1-300 AH and Zone AE shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is one foot or more above the base flood elevation and be securely anchored to an adequately anchored foundation system in accordance with the provisions of subsection A of this section.

5. As provided in FEMA Technical Bulletin 11, below-grade crawlspaces are permitted subject to approval of the city of Battle Ground upon application and subject to the following criteria. FEMA Technical Bulletin 11 is the reference for the provisions of this section.

1. The interior grade is not more than two feet below the lowest exterior adjacent grade.
2. The height of the below-grade crawlspace, as measured from the interior grade to the top of the crawlspace foundation wall, must not exceed four feet at any point, or five feet to the top of the next higher floor.
3. There must be adequate drainage that removes interior floodwaters and the velocity of the floodwaters must not be more than five feet per second.

4. Utility systems within the crawlspace, particularly ductwork, must be elevated above the BFE, or designed so that floodwaters cannot enter or accumulate within system components, or be damaged during flood conditions.

5. All insulation must be located above the BFE.

6. The building must be designed to resist flotation, collapse, and lateral movement resulting from hydrodynamic and hydrostatic loads including the effect of buoyancy.

7. Alternative crawlspace design in areas exceeding five feet per second flood velocity must be designed by a qualified architect or engineer.

8. Crawspaces must have openings that equalize hydrostatic pressures by allowing for the automatic entry and exit of floodwaters.

B. Buildings that have below-grade crawlspace may have higher flood insurance premiums than buildings that have the preferred crawlspace construction with the interior elevation at or above the lowest adjacent grade. Interpretation and application of these requirements shall be consistent with Official FEMA Technical Bulletin 11, Guidance on Crawlspace Construction.

C. Critical Facility. Construction of new critical facilities shall be, to the extent possible, located outside the limits of the base floodplain. Construction of new critical facilities shall be permissible within the base floodplain if no feasible alternative site is available. Critical facilities constructed within the base floodplain shall have the lowest floor elevated to three feet or more above the level of the base flood elevation at the site. Floodproofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into floodwaters. Access to floodplain shall be provided to all critical facilities to the extent possible.

D. Floodways. Located within areas of special flood hazard established in BGMC 18.310.020(B) are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters, which carry debris, potential projectiles and erosion potential, the following provisions apply:

1. All encroachments are prohibited, including fill, new construction, substantial improvements, and other development in floodways unless certification by a registered professional engineer or architect is provided demonstrating through hydraulic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment shall not result in any increase in flood levels during the occurrence of the base flood discharge.

2. Construction or reconstruction of residential structures is prohibited within designated floodways, except for (a) repairs, reconstruction or improvements to a structure which do not increase the ground floor area; and (b) repairs, reconstruction or improvements to a structure, the cost of which does not exceed fifty percent of the market value of the structure either (i) before the repair, reconstruction or improvements are started, or (ii) if the structure has been damaged, and is being restored, before the damage occurred. Work done on structures to comply with existing health, sanitary or safety codes Any project for improvement of a structure to correct existing violations or state or local health, sanitary, or safety code specification which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions, or to structures identified as historic places shall not be included in the fifty-percent limitation.
3. If subsection (D)(1) of this section is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of this section.

4. The placement of any manufactured homes in floodways is prohibited, except in an existing manufactured home park or existing manufactured home subdivisions. (Ord. 06-16 § 9, 2006: Ord. 04-025 § 8 (part), 2004)

E. In areas with Base Flood Elevations but a regulatory floodway has not been designated. No new construction, substantial improvements, or other development (including fill) shall be permitted, 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.

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

   a. be on the site for fewer than 180 consecutive days, (or)

   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 have no permanently attached additions; or

   c. meet the requirements of B.4 and D.4 of this Section.

18.310.060 Severability. The provisions of this chapter are hereby declared to be severable. If any provision, clause, sentence, or paragraph of this chapter or the application thereof to any person, establishment, or circumstances shall be held invalid, such invalidity shall not affect the other provisions or application of this chapter.