

ORDINANCE NO. 20-1150

**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF
BLACK DIAMOND, KING COUNTY, WASHINGTON, AMENDING
BDMC CHAPTER 15.24, FLOOD DAMAGE PREVENTION CODE;
PROVIDING FOR SEVERABILITY; AND ESTABLISHING AN
EFFECTIVE DATE**

WHEREAS, King County and incorporated areas have received new Flood Insurance Rate Maps (FIRM) and a new Flood Insurance Study (FIS) effective August 19, 2020; and

WHEREAS, the updated FIRM and FIS trigger the need for the City of Black Diamond (City) to update its regulations to ensure compliance with the National Flood Insurance Program (NFIP) and adopting the new FIRM and FIS; and

WHEREAS, City Staff drafted amendments to existing Black Diamond Municipal Code Chapter 15.24, the Flood Damage Prevention Code, accordingly; and

WHEREAS, a notice of public hearing before the City's Planning Commission to consider this ordinance was duly published in the City's official newspaper on September 23rd and 30th ; and

WHEREAS, the City's Planning Commission held a public hearing on the proposed amendments on October 6, 2020, and then voted to recommend adoption of this amendment by the City Council; and

WHEREAS, on October 20, 2020, the proposed amendments were sent to the Washington State Department of Commerce and other agencies for expedited review as required by the GMA pursuant to RCW 36.70A.106, and no written comments were received; and

WHEREAS, on October 19, 2020, the proposed amendments were sent to the Federal Emergency Management Agency (FEMA) and the Washington Department of Ecology (DOE) pursuant to RCW 86.16.041; and

WHEREAS, on October 19, 2020, a SEPA Determination of Nonsignificance (DNS) was issued in compliance with WAC 197-11-340;

**NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF BLACK DIAMOND,
WASHINGTON, ORDAINS AS FOLLOWS:**

Section 1. Adoption of Amendments to BDMC Chapter 15.24. Chapter 15.24, Flood Damage Prevention Code, of the Black Diamond Municipal Code shall be amended

as set forth in Attachment A.

Section 2. Severability. If any portion of this Ordinance, or its application to any person or circumstance, is determined by final order of a court of competent jurisdiction to be invalid, pre-empted, or otherwise unenforceable for any reason, such determination shall not affect the validity or enforceability of the remaining provisions hereof or its application to other persons or circumstances.

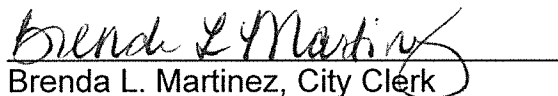
Section 3. Effective Date. This Ordinance, or a summary hereof, shall be published in the official newspaper of the City, and shall take effect and be in full force five (5) days after the date of publication.

**ADOPTED BY THE CITY COUNCIL OF THE CITY OF BLACK DIAMOND AT A
SPECIAL MEETING THEREOF ON THE 29TH DAY OF OCTOBER, 2020.**



Mayor Carol Benson

ATTEST:


Brenda L. Martinez, City Clerk

APPROVED AS TO FORM:

David Linehan, City Attorney

Filed with the City Clerk: 10/29/2020

Date of Publication: 11/04/2020

Effective Date: 11/09/2020

Attachment A

ARTICLE I. STATUTORY AUTHORIZATION, FINDINGS OF FACT, PURPOSE, AND OBJECTIVES

15.24.010 Statutory authorization.

15.24.020 Findings of fact.

15.24.030 Statement of purpose.

15.24.040 Methods of reducing flood losses.

15.24.010 Statutory authorization.

The legislature of the state of Washington has delegated the responsibility to local governmental units to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry.

15.24.020 Findings of fact.

A. The flood hazard areas of Black Diamond are subject to periodic inundation which results in flooded roads and yards. If development were to be allowed in these areas there would be the potential for loss of life and property, health, and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, adverse environmental impacts and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.

B. Flood losses may be caused or are exacerbated by the cumulative effect of obstructions in areas of special flood hazards which increase flood heights and velocities, and when inadequately designed may cause damage in other areas. Uses that are inadequately flood-proofed, elevated, or otherwise protected from flood damage also contribute to the flood loss.

C. The mapped flood hazard zones within the City of Black Diamond are entirely within protected wetlands.

15.24.030 Statement of purpose.

It is the purpose of this chapter to promote the public health, safety, and general welfare; reduce the annual cost of flood insurance; and 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 notify those who occupy flood hazard areas that they assume responsibility for their actions; and
- I. To participate in and maintain eligibility for flood insurance and disaster relief.

15.24.040 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, process permits through the variance procedure to show necessity and minimize the impact of development within the flood hazard zone and such uses designed to 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 to accommodate or channel flood waters;
- D. Controlling, filling, grading, dredging, and other development within the flood plain; and
- E. Preventing or regulating the construction of flood barriers that unnaturally divert floodwaters or may increase flood hazards in other areas.

ARTICLE II. DEFINITIONS

15.24.050 Definitions.

15.24.050 Definitions.

"Alteration of watercourse" means any action that will change the location of the channel occupied by water within the banks of any portion of a riverine waterbody.

"Appeal" means a request for a review of the interpretation of any provision of this chapter or a request for a variance.

"Area of shallow flooding" means a designated zone AO, AH, AR/AO or AR/AH (or VO) 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. Also referred to as the sheet flow area.

"Area of special flood hazard" means the land in the floodplain within a community subject to a 1 percent 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, VE). "Special flood hazard area" is synonymous in meaning with the phrase "area of special flood hazard".

"Base flood" means the flood having a 1% chance of being equaled or exceeded in any given year (also referred to as the "100-year flood").

"Base Flood Elevation (BFE)" means the elevation to which floodwater is anticipated to rise during the base flood.

"Basement" means any area of the building having its floor sub-grade (below ground level) on all sides.

"Breakaway wall" means a wall that is not part of the structural support of the 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.

"Critical facility" means 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, hospitals, police, fire and emergency response installations, and installations which produce, use, or store hazardous materials or hazardous waste.

"Development" means 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 located within the area of special flood hazard.

"Elevation Certificate" means an administrative tool of the National Flood Insurance Program (NFIP) that can be used to provide elevation information, to determine the proper insurance premium rate, and to support a request for a Letter of Map Amendment (LOMA) or Letter of Map Revision based on fill (LOMR-F).

"Elevated building" means, for insurance purposes, a non-basement building that has its lowest elevated floor raised above ground level by foundation walls, shear walls, post, piers, pilings, or columns.

"Existing manufactured home park or subdivision" means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the adopted floodplain management regulations.

"Expansion to an existing manufactured home park or subdivision" means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

"Flood" or "flooding" means:

1. A general and temporary condition of partial or complete inundation of normally dry land areas from:
 - a. The overflow of inland or tidal waters; and/or
 - b. The unusual and rapid accumulation of runoff of surface waters from any source.
 - c. Mudslides (i.e. mudflows) which are proximately caused by flooding as defined in paragraph (1)(b) 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.
 - d. 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 (1)(a) of this definition.

"Flood elevation study" means 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. Also known as a Flood Insurance Study (FIS).

"Flood Insurance Rate Map (FIRM)" means the official map of a community, on which the Federal Insurance 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 (FIS)" means see "Flood Elevation Study".

"Floodplain or flood-prone area" means any land area susceptible to being inundated by water from any source. See "Flood or flooding."

"Floodplain administrator" means the community official designated by this Chapter to administer and enforce the floodplain management regulations.

"Floodproofing" means 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. Flood proofed structures are those that have the structural integrity and design to be impervious to floodwater below the Base Flood Elevation.

"Floodway" means 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."

"Functionally dependent use" means 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.

"Highest adjacent grade" means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

"Historic structure" means any structure that is:

1. 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;
2. 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;

3. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or
4. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:
 - a. By an approved state program as determined by the Secretary of the Interior, or
 - b. Directly by the Secretary of the Interior in states without approved programs.

"Infrastructure of public significance" means a public improvement, roads, utilities, sidewalks, pedestrian paths, bridges or parks.

"Lowest floor" means 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 of this chapter found at Section 15.24.160(A)(2), (i.e. provided there are adequate flood ventilation openings).

"Manufactured home" means 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."

"Manufactured home park or subdivision" means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

"Mean Sea Level" means for purposes of the National Flood Insurance Program, the vertical datum to which Base Flood Elevations shown on a community's Flood Insurance Rate Map are referenced.

"New construction" means for the purposes of determining insurance rates, structures for which the "start of construction" commenced on or after the effective date of an initial Flood Insurance Rate Map or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. 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 a community and includes any subsequent improvements to such structures.

"New manufactured home park or subdivision" means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of adopted floodplain management regulations.

"Recreational vehicle" means a vehicle:

1. Built on a single chassis;
2. Four hundred square feet or less when measured at the largest horizontal projection;
3. Designed to be self-propelled or permanently towable by a light duty truck; and
4. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

"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 one hundred eighty 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 foundations 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 means a walled and roofed building, including a gas or liquid storage tank that is principally above ground, as well as a manufactured home.

"Substantial damage" means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed fifty percent of the market value of the structure before the damage occurred.

"Substantial improvement" means 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:

1. Any project for improvement of a structure to correct previously identified existing violations of state or local health, sanitary, or safety code specifications that have been identified by the local code enforcement official and that are the minimum necessary to assure safe living conditions; or
2. Any alteration of a "historic structure," provided that the alteration will not preclude the structure's continued designation as a "historic structure."

"Variance" means a grant of relief from the requirements of this chapter that permits construction in a manner that would otherwise be prohibited by this chapter.

"Violation" means 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" means a structure for commerce or industry that cannot exist in any other location and is dependent on the water by reason of the intrinsic nature of its operations.

"Water surface elevation" means 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.

ARTICLE III. GENERAL PROVISIONS

15.24.060 Lands to which this chapter applies.

15.24.070 Basis for establishing the areas of special flood hazard.

15.24.072 Compliance

15.24.074 Penalties for Noncompliance

15.24.080 Abrogation and greater restrictions.

15.24.090 Interpretation

15.24.100 Warning and disclaimer of liability.

15.24.060 Lands to which this chapter applies.

This chapter shall apply to all areas of special flood hazards within the jurisdiction of Black Diamond.

15.24.070 Basis for establishing the areas of special flood hazard.

The areas of special flood hazard identified by the Federal Insurance Administrator in a scientific and engineering report entitled "The Flood Insurance Study for King County and Incorporated Areas" dated August 19, 2020, and any revisions thereto, with an accompanying flood insurance rate map (FIRM), and any revisions thereto, are hereby adopted by reference and declared to be a part of this chapter. The flood insurance study and the FIRM are on file at the City of Black Diamond. The best available information for flood hazard area identification as outlined in Section 15.24.130(B) shall be the basis for regulation until a new FIRM is issued that incorporates data utilized under Section 15.24.030(B).

15.24.072 Compliance

All development within special flood hazard areas is subject to the terms of this ordinance and other applicable regulations.

15.24.074 Penalties for Noncompliance

No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this ordinance and other applicable regulations. Violations of the provisions of this ordinance by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions), shall constitute a civil violation under Chapter 8.02, Code Enforcement. Any person who violates this ordinance or fails to comply with any of its requirements shall upon conviction thereof be fined in accordance with BDMC Chapter 8.02, for each violation, and in addition shall pay all costs and expenses involved in the case. Nothing herein contained shall prevent the administrator from taking such other lawful action as is necessary to prevent or remedy any violation.

15.24.080 Abrogation and greater restrictions.

The ordinance codified in this chapter is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where the ordinance codified in this chapter and another ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

15.24.090 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; and
- C. Deemed neither to limit nor repeal any other powers granted under state statutes.

15.24.100 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 Black Diamond, 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 hereunder.

ARTICLE IV. ADMINISTRATION

15.24.110 Establishment of development permit.

15.24.120 Designation of the local administrator.

15.24.130 Duties and responsibilities of the local administrator.

15.24.140 Conditions for variances.

15.24.142 Requirements for Variances.

15.24.144 Variance Criteria

14.24.146 Additional Requirements for the Issuance of a Variance

15.24.110 Establishment of development permit.

A. Activities and Permitted Uses.

1. Infrastructure of public significance is an allowed use within a flood hazard zone as long as the design of the feature or the activity meets the requirements of Article V.
2. Development and structures as set forth in the definitions are only allowed within the flood hazard zone as permitted by this ordinance and as otherwise permitted by other applicable provisions of the BDMC.

B. Development Permit Required. A development permit shall be obtained before construction or development begins within any area of special flood hazard established in Section 15.24.070. The permit shall be for infrastructure of public significance or

activities, structures (including manufactured homes, as set forth in the "Definitions"), or any other development including fill and other activities as set forth in the "Definitions."

C. Application for Development Permit. Application for a development permit 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:

1. Elevation in relation to mean sea level, of the lowest floor (including basement) of all structures recorded on a current elevation certificate with Section B completed by the Floodplain Administrator.
2. Elevation in relation to mean sea level to which any structure has been flood proofed;
3. Where a structure is to be flood proofed, certification by a registered professional engineer or architect that the flood proofing methods for any nonresidential structure meet flood proofing criteria in Section 15.24.160(B).
4. Description of the extent to which a watercourse will be altered or relocated as a result of proposed development;
5. Where development is proposed in a floodway, an engineering analysis indicating no rise of the Base Flood Elevation; and
6. Any other such information that may be reasonably required by the Floodplain Administrator in order to review the application.

15.24.120 Designation of the Floodplain administrator.

The public works director is hereby appointed to administer, implement, and enforce this chapter by granting or denying development permit applications in accordance with its provisions.

15.24.130 Duties and responsibilities of the local administrator.

Duties of the public works director shall include, but not be limited to:

A. Permit review.

1. Review all development permits to determine that the permit requirements of this chapter have been satisfied.
2. 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.
3. Review all development permits to determine that the site is reasonably safe from flooding. Review all development permits to determine if the proposed

development is located in the floodway. If located in the floodway, assure that the encroachment provisions of Section 15.24.180(A) are met.

4. Notify FEMA when annexations occur in the Special Flood Hazard Area.

B. Use of Other Base Flood Data (in A Zones). When base flood elevation data has not been provided (in A zones) in accordance with Section 15.24.070, basis for establishing the areas of special flood hazard, the public works director 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 Sections 15.24.160, specific standards, and 15.24.180, floodways.

C. Information to be Obtained and Maintained.

1. Where base flood elevation data is provided through the FIS, FIRM, or required as in Section 15.24.130 (B), obtain and maintain a record of the actual (as-built) elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement.
2. For all new or substantially improved flood proofed nonresidential structures where base flood elevation data is provided through the FIS, FIRM, or as required in Section 15.24.130(B):
 - a. Obtain and maintain a record of the elevation (in relation to mean sea level) to which the structure was flood proofed.
 - b. Maintain the flood proofing certifications required in Section 15.24.110(B)(3).
3. Certification required by Section 15.24.180. (floodway encroachments).
4. Records of all variance actions, including justification for their issuance.
5. Improvement and damage calculations.
6. Maintain for public inspection all records pertaining to the provisions of this ordinance.

D. Notification to Other Entities. Whenever a watercourse is to be altered or relocated:

1. Notify adjacent communities 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 through appropriate notification means, and
2. Assure that the flood carrying capacity of the altered or relocated portion of said watercourse is maintained.

E. Interpretation of FIRM Boundaries. The public works director may make interpretations where needed, as to exact location of the boundaries of the areas of special flood hazards (e.g. where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation. Such appeals shall be granted consistent with the standards of Section 60.6 of the Rules and Regulations of the National Flood Insurance Program (44 CFR 59-76).

15.24.140 Variances.

The variance criteria set forth in this Chapter are based on the general principle of zoning law that variances pertain to a piece of property and are not personal in nature. A variance may be granted for a parcel of property with physical characteristics so unusual that complying with the requirements of this ordinance would create an exceptional hardship to the applicant or the surrounding property owners. The characteristics must be unique to the property and not be shared by adjacent parcels. The unique characteristic must pertain to the land itself, not to the structure, its inhabitants, or the property owners.

It is the duty of the City to help protect its citizens from flooding. This need is so compelling and the implications of the cost of insuring a structure built below the Base Flood Elevation are so serious that variances from the flood elevation or from other requirements in the flood ordinance are quite rare. The long-term goal of preventing and reducing flood loss and damage can only be met if variances are strictly limited. Therefore, the variance guidelines provided in this ordinance are more detailed and contain multiple provisions that must be met before a variance can be properly granted. The criteria are designed to screen out those situations in which alternatives other than a variance are more appropriate.

15.24.142 Requirements for Variances.

A. Variances shall only be issued:

1. Upon 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 local laws or ordinances;
2. For the repair, rehabilitation, or restoration of historic structures 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;
3. Upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief;
4. Upon a showing of good and sufficient cause;
5. Upon a determination that failure to grant the variance would result in exceptional hardship to the applicant;
6. Upon a showing that the use cannot perform its intended purpose unless it is located or carried out in close proximity to water. This includes only facilities defined in this ordinance in the definition of "Functionally Dependent Use."

B. Variances shall not be issued within any floodway if any increase in flood levels

during the base flood discharge would result.

- C. Generally, variances may be issued 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 BFE, provided the procedures of Articles IV and V of this chapter have been fully considered. As the lot size increases beyond one-half acre, the technical justification required for issuing the variance increases.

15.24.144 Variance Criteria

- A. In considering variance applications, the City shall consider all technical evaluations, all relevant factors, all standards specified in other sections of this ordinance, and:
 - 1. The danger that materials may be swept onto other lands to the injury of others;
 - 2. The danger to life and property due to flooding or erosion damage;
 - 3. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
 - 4. The importance of the services provided by the proposed facility to the community;
 - 5. The necessity to the facility of a waterfront location, where applicable;
 - 6. The availability of alternative locations for the proposed use, which are not subject to flooding or erosion damage;
 - 7. The compatibility of the proposed use with existing and anticipated development;
 - 8. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
 - 9. The safety of access to the property in time of flood for ordinary and emergency vehicles;
 - 10. The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters expected at the site; and
 - 11. 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, water system, and streets and bridges.

14.24.146 Additional Requirements for the Issuance of a Variance

- A. Any applicant to whom a variance is granted shall be given written notice over the signature of a community official that:
 - 1. The issuance of a variance to construct a structure below the BFE will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage, and
 - 2. Such construction below the BFE increases risks to life and property.

- B. The Floodplain Administrator shall maintain a record of all variance actions,

including justification for their issuance.

- C. The Floodplain Administrator shall condition the variance as needed to ensure that the requirements and criteria of this chapter are met.

Variances as interpreted in the NFIP 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 flood elevations should be quite rare.

ARTICLE V. PROVISIONS FOR FLOOD HAZARD REDUCTION

15.24.150 General standards.

15.24.160 Specific standards.

15.25.162 Enclosed Area Below the Lowest Floor

15.25.170 AE and A1-30 zones with base flood elevations but no floodways.

15.24.180 Floodways.

15.24.182 All Other Building Standards Apply in the Floodway.

15.24.190 Critical facility.

15.24.150 General standards.

In all areas of special flood hazards, the following standards are required:

A. Anchoring.

1. All new construction and substantial improvements, including those related to manufactured homes, shall be anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads including the effects of buoyancy.
2. All manufactured homes shall be anchored to prevent flotation, collapse, or lateral movement, and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors.

B. Construction Materials and Methods.

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

2. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.
3. Electrical, heating, ventilation, plumbing, air-conditioning equipment, and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

C. Utilities.

1. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the systems.
2. Water wells shall be located on high ground that is not in the floodway.
3. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters.
4. Onsite waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

D. Subdivision Proposals and Development.

1. All subdivision proposals, as well as new development, shall be consistent with the need to minimize flood damage.
2. All subdivision proposals, as well as new development, shall have public utilities and facilities, such as sewer, gas, electrical, and water systems located and constructed to minimize or eliminate flood damage.
3. All subdivision proposals, as well as new development, shall have adequate drainage provided to reduce exposure to flood damage.
4. 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) as part of the application.

E. Review of Building Permits. Where elevation data is not available either through the flood insurance study, FIRM, or from another authoritative source (Section 15.24.130(B)), 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 the highest adjacent grade in these zones may result in higher insurance rates.

15.24.160 Specific standards.

In all areas of special flood hazards where base flood elevation data has been provided as set forth in Section 15.24.070, BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD

HAZARD, or Section 15.24.130(B), USE OF OTHER BASE FLOOD DATA. The following provisions are required:

A. Residential Construction.

1. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated three feet or more above the base flood elevation (BFE).
2. New construction and substantial improvement of any residential structure in an Unnumbered A zone for which a BFE is not available and cannot be reasonably obtained shall be reasonably safe from flooding, but in all cases the lowest floor shall be at least two feet above the Highest Adjacent Grade.
3. 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 no higher than one foot above grade.
 - c. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
 - d. A garage attached to a residential structure, constructed with the garage floor slab below the BFE, must be designed to allow for the automatic entry and exit of floodwaters.

Alternatively, a registered engineer or architect may design and certify engineered openings.

B. Nonresidential Construction.

1. New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated three feet or more above the base flood elevation; or, together with attendant utility and sanitary facilities, shall:
 - a. Be dry flood-proofed so that below one foot or more above the base flood level the structure is watertight with walls substantially impermeable to the passage of water or dry flood proofed to the elevation required by ASCE 24, whichever is greater;
 - b. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;

c. Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this subsection based on their development and/or review of the structural design, specifications and plans. Such certifications shall be provided to the official as set forth in Section 15.24.130(C)(2); and

d. Nonresidential structures that are elevated, not flood-proofed, must meet the same standards for space below the lowest floor as described in Section 15.24.160(A)(2).

2. Applicants who are flood proofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the flood proofed level (e.g. a building flood proofed to the base flood level will be rated as one foot below). Flood proofing the building an additional foot will reduce insurance premiums.

3. New construction and substantial improvement of any non-residential structure in an Unnumbered A zone for which a BFE is not available and cannot be reasonably obtained shall be reasonably safe from flooding, but in all cases the lowest floor shall be at least two feet above the Highest Adjacent Grade.

4. 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 no higher than one foot above grade.

c. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

d. A garage attached to a residential structure, constructed with the garage floor slab below the BFE, must be designed to allow for the automatic entry and exit of floodwaters.

Alternatively, a registered engineer or architect may design and certify engineered openings.

C. Manufactured Homes.

1. All manufactured homes in the floodplain to be placed or substantially improved on sites shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated three foot or more above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement.

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

1. Be on the site for fewer than 180 consecutive days; or
2. Be fully licensed and ready for highway use, on wheels or jacking systems, attached to the site only by quick disconnect type utilities and security devices, and have no permanently attached additions; or
3. Meet the requirements of Section 15.24.160(C) above and the elevation and anchoring requirements for manufactured homes.

15.25.162 Enclosed Area Below the Lowest Floor

If buildings or manufactured homes are constructed or substantially improved with fully enclosed areas below the lowest floor, the areas shall be used solely for parking of vehicles, building access, or storage.

15.25.170 AE zones with base flood elevations but no floodways.

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 within zones AE on the community's 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.

15.24.180 Floodways.

Located within areas of special flood hazard established in Section 15.24.070 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters that can carry debris, and increase erosion potential, the following provisions apply:

A. No Rise Standard. Encroachments, including fill, new construction, substantial improvements, and other development are prohibited unless certification by a registered professional engineer is provided demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels during the occurrence of the base flood discharge;

B. Residential Construction in Floodways. Construction or reconstruction of residential structures is prohibited within designated floodways, except for (i) repairs, reconstruction, or improvements to a structure which do not increase the ground floor area; and (ii) repairs, reconstruction or improvements to a structure, the cost of which does not exceed fifty percent of the market value of the structure either, (A) before the repair, or reconstruction is started, or (B) if the structure has been damaged, and is being restored, before the damage occurred. 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 to structures identified as historic places, may be excluded in the fifty percent; and

C. If Section 15.24.180(A) is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Article V, provisions for flood hazard reduction.

15.24.182 All Other Building Standards Apply in the Floodway.

If Section 15.24.180(A) is satisfied or construction is allowed pursuant to Section 15.24.180(B), all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of this Article V, Provision For Flood Hazard Reduction.

15.24.190 Critical facility.

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