

ORDINANCE NO.

14-01
Series of 2014

TITLE: AN ORDINANCE REPEALING SECTION 16-49 AND REPEALING AND REENACTING SECTION 16-146 OF THE HUDSON MUNICIPAL CODE FLOODPLAIN REGULATIONS

BE IT ORDAINED BY THE BOARD OF TRUSTEES FOR THE TOWN OF HUDSON, COLORADO, THAT:

Section 1. Section 16-31(g)(2)c.8. of the Hudson Municipal Code is hereby amended to read as follows:

8. For variances relating to floodplains and floodways, the requirements of section 16-146 of this chapter, and FEMA must be met.

Section 2. Section 16-40 of the Hudson Municipal Code is hereby amended to read as follows:

Sec. 16-40. Establishment of districts.

In order to regulate the location, height, bulk and size of buildings and other structures; the percentage of lot which may be occupied; the size of lots, courts and other open spaces; the density and distribution of population; the location and uses of land, buildings and structures for trade, industry, residence, recreation, public activities or other purposes, the incorporated area of the town is hereby divided into the following districts:

- R-1 Residential one district. (16-43)
- R-2 Residential two district. (16-44)
- R-T Residential trailer district. (16-45)
- B Business district. (16-46)
- C-1 Commercial one district. (16-47)
- C-2 Commercial two district. (16-48)
- A-1 Agriculture one district. (16-50)
- A-2 Agriculture two district. (16-54)
- A-3 Agriculture three district. (16-62)
- H Historical district. (16-51)
- P Parks district. (16-52)

- O Open space district. (16-61)
- PD Planned development district. (16-53)
- I-1 Industrial one district. (16-57)
- I-2 Industrial two district. (16-59)
- I-3 Industrial three district. (16-60)

Section 3. Section 16-49 of the Hudson Municipal Code, Floodplain Overlay District (F), is hereby repealed in its entirety.

Section 4. Section 16-146 of the Hudson Municipal Code is hereby repealed and reenacted to read as follows:

Sec. 16-146. Floodplain regulations.

(a) Statutory authorization, findings of fact, purpose and objectives.

(1) Statutory authorization. The Legislature of the state has in Title 29, Article 20, C.R.S. delegated the responsibility of local governmental units to adopt regulations designed to minimize flood losses. The legislature of the state has in Section 31-15-103, C.R.S., delegated the responsibility to local government units to adopt ordinances containing regulations designed to promote the public health, safety and general welfare of its citizenry.

(2) Findings of fact.

a. The flood hazard areas of the town are subject to periodic inundation which may result in loss of life and property, health and safety hazards, disruption of commerce of 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. Flood losses are caused by the cumulative effect of obstructions in areas of special flood hazard which increase flood heights and velocities, and when inadequately anchored, damage uses in other areas. Uses that are inadequately flood proofed, elevated or otherwise protected from flood damage also contribute to the flood loss.

(3) Statement of purpose. It is the purpose of this Section to promote the public health, safety and general welfare, to minimize public and private losses due to flood conditions and to minimize public and private losses due to flood conditions to specific areas by provisions designed:

- a. To protect human life and health;
- b. To minimize expenditure of public money for costly flood control projects;
- c. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

d. To minimize prolonged business interruptions;

e. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;

f. To help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;

g. To ensure that potential buyers are notified that property is in an area of special flood hazard; and

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

(4) Methods of reducing flood losses. In order to accomplish its purposes, this Section includes methods and provisions for:

a. Restricting or prohibiting uses which are dangerous to health, safety and property due to water or erosion or in-flood heights or velocities;

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

c. Controlling the alteration of natural floodplains, stream channels and natural protective barriers, which help accommodate or channel floodwaters;

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

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

(b) Definitions. Unless specifically defined below, words or phrases used in this Section shall be interpreted so as to give them the meaning they have in common usage and to give this Section its most reasonable application.

100-Year Flood means a flood having a recurrence interval that has a one-percent chance of being equaled or exceeded during any given year (1-percent-annual-chance flood). The terms "one-hundred-year flood" and "one percent chance flood" are synonymous with the term "100-year flood." The term does not imply that the flood will necessarily happen once every one hundred years.

100-Year Floodplain means the area of land susceptible to being inundated as a result of the occurrence of a one-hundred-year flood.

500-Year Flood means a flood having a recurrence interval that has a 0.2-percent chance of

being equaled or exceeded during any given year (0.2-percent-annual-chance flood). The term does not imply that the flood will necessarily happen once every five hundred years.

500-Year Floodplain means the area of land susceptible to being inundated as a result of the occurrence of a five-hundred-year flood.

Addition means any activity that expands the enclosed footprint or increases the square footage of an existing structure.

Alluvial fan flooding means flooding occurring on the surface of an alluvial fan or similar landform which originates at the apex and is characterized by high-velocity flows; active processes of erosion, sediment transport, and deposition; and unpredictable flow paths.

Apex means a point on an alluvial fan or similar landform below which the flow path of the major stream that formed the fan becomes unpredictable and alluvial fan flooding can occur.

Area of shallow flooding means a designated AO, AH, or VO zone on the Town's Flood Insurance Rate Map (FIRM) with a one percent chance 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.

Base flood - means the flood having a one percent chance of being equaled or exceeded in any given year.

Base Flood Elevation (BFE) means the elevation shown on a FEMA Flood Insurance Rate Map for Zones AE, AH, A1-A30, AR, AR/A, AR/AE, AR/A1-A30, AR/AH, AR/AO, V1-V30, and VE that indicates the water surface elevation resulting from a flood that has a one percent chance of equaling or exceeding that level in any given year.

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

Channel means the physical confine of stream or waterway consisting of a bed and stream banks, existing in a variety of geometries.

Channelization means the artificial creation, enlargement or realignment of a stream channel.

Code of Federal Regulations (CFR) means the codification of the general and permanent Rules published in the Federal Register by the executive departments and agencies of the Federal Government. It is divided into 50 titles that represent broad areas subject to Federal regulation.

Community means any political subdivision in the state of Colorado that has authority to adopt and enforce floodplain management regulations through zoning, including, but not limited to, cities, towns, unincorporated areas in the counties, Indian tribes and drainage and

flood control districts.

Conditional Letter of Map Revision (CLOMR) means FEMA's comment on a proposed project, which does not revise an effective floodplain map, that would, upon construction, affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodplain.

Critical Facility means a structure or related infrastructure, but not the land on which it is situated, as specified in Section (e) (2) that if flooded may result in significant hazards to public health and safety or interrupt essential services and operations for the community at any time before, during and after a flood.

Development means any man-made change in improved and 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.

Elevated building means a non-basement building (i) built, in the case of a building in Zones A1-30, AE, A, A99, AO, AH, B, C, X, and D, to have the top of the elevated floor, or in the case of a building in Zones V1-30, VE, or V, to have the bottom of the lowest horizontal structure member of the elevated floor elevated above the ground level by means of pilings, columns (posts and piers), or shear walls parallel to the flow of the water and (ii) adequately anchored so as not to impair the structural integrity of the building during a flood of up to the magnitude of the base flood. In the case of Zones A1-30, AE, A, A99, AO, AH, B, C, X, and D, "elevated building" also includes a building elevated by means of fill or solid foundation perimeter walls with openings sufficient to facilitate the unimpeded movement of flood waters.

Existing construction means for the purposes of determining rates, structures for which the "start of construction" commenced before the effective date of the FIRM or before January 1, 1975, for FIRMs effective before that date. "Existing construction" may also be referred to as "existing structures."

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 floodplain management regulations adopted by a community.

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).

Federal Register means the official daily publication for Rules, proposed Rules, and notices of Federal agencies and organizations, as well as executive orders and other presidential documents.

Federal Emergency Management Agency (FEMA) means the agency responsible for administering the National Flood Insurance Program.

Flood or flooding means a general and temporary condition of partial or complete inundation of normally dry land areas from: the overflow of inland or tidal waters; or the unusual and rapid accumulation or runoff of surface waters from any source.

Flood Control Structure means a physical structure designed and built expressly or partially for the purpose of reducing, redirecting, or guiding flood flows along a particular waterway. These specialized flood modifying works are those constructed in conformance with sound engineering standards.

Flood insurance rate map (FIRM) means an official map of a community, on which the Federal Emergency Management Agency has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

Flood insurance study is the official report provided by the Federal Emergency Management Agency. The report contains flood profiles, water surface elevation of the base flood, as well as the Flood Insurance Rate Maps.

Flood protection system means those physical structural works for which funds have been authorized, appropriated, and expended and which have been constructed specifically to modify flooding in order to reduce the extent of the areas within a community subject to a special flood hazard and the extent of the depths of associated flooding. Such a system typically includes hurricane tidal barriers, dams, reservoirs, levees or dikes. These specialized flood modifying works are those constructed in conformance with sound engineering standards.

Flood proofing means any combination of structural and non-structural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

Floodplain or flood-prone area means any land area susceptible to being inundated by water from any source (see definition of flooding).

Floodplain Administrator means the community official designated by title to administer and enforce the floodplain management regulations.

Floodplain Development Permit means a permit required before construction or development begins within any Special Flood Hazard Area (SFHA). If FEMA has not defined the SFHA within a community, the community shall require permits for all proposed construction or other development in the community including the placement of manufactured homes, so that it may determine whether such construction or other development is proposed within flood-prone areas. Permits are required to ensure that proposed development projects meet the requirements of the NFIP and this floodplain management ordinance.

Floodplain management means the operation of an overall program of corrective and

preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, flood control works and floodplain management regulations.

Floodplain management regulations means zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as a floodplain ordinance, grading ordinance and erosion control ordinance) and other applications of police power. The term describes such state or local regulations, in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

Floodway (regulatory 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. The Colorado statewide standard for the designated height to be used for all newly studied reaches shall be one-half foot (six inches). Letters of Map Revision to existing floodway delineations may continue to use the floodway criteria in place at the time of the existing floodway delineation.

Freeboard means the vertical distance in feet above a predicted water surface elevation intended to provide a margin of safety to compensate for unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood such as debris blockage of bridge openings and the increased runoff due to urbanization of the watershed.

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, but 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 or 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.

Letter of Map Revision (LOMR) means FEMA's official revision of 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 (BFEs), or the Special Flood Hazard Area (SFHA).

Letter of Map Revision Based On Fill (LOMR-F) means FEMA's modification of the Special Flood Hazard Area (SFHA) shown on the Flood Insurance Rate Map (FIRM) based on the placement of fill outside the existing regulatory floodway.

Levee means a man-made structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water so as to provide protection from temporary flooding.

Levee system means a flood protection system which consists of a levee, or levees, and associated structures, such as closure and drainage devices, which are constructed and operated in accordance with sound engineering practices.

Lowest floor means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking or 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 requirement of Section 60.3 of the National Flood Insurance Program regulations.

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 connected 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.

Material Safety Data Sheet (MSDS) means a form with data regarding the properties of a particular substance. An important component of product stewardship and workplace safety, it is intended to provide workers and emergency personnel with procedures for handling or working with that substance in a safe manner, and includes information such as physical data (melting point, boiling point, flash point, etc.), toxicity, health effects, first aid, reactivity, storage, disposal, protective equipment, and spill-handling procedures.

Mean sea level means, for purposes of the National Flood Insurance Program, the North American Vertical Datum (NAVD) of 1988 or other datum, to which base flood elevations

shown on a community's Flood Insurance Rate Map are referenced.

National Flood Insurance Program (NFIP) means FEMA's program of flood insurance coverage and floodplain management administered in conjunction with the Robert T. Stafford Relief and Emergency Assistance Act. The NFIP has applicable Federal regulations promulgated in Title 44 of the Code of Federal Regulations. The U.S. Congress established the NFIP in 1968 with the passage of the National Flood Insurance Act of 1968.

New construction means, for the purpose of determining insurance rates, structures for which the "start of construction" commenced on or after the effective date of an initial FIRM 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 floodplain management regulations adopted by a community.

No-Rise Certification means a record of the results of an engineering analysis conducted to determine whether a project will increase flood heights in a floodway. A No-Rise Certification must be supported by technical data and signed by a registered Colorado Professional Engineer. The supporting technical data should be based on the standard step-backwater computer model used to develop the 100-year floodway shown on the Flood Insurance Rate Map (FIRM) or Flood Boundary and Floodway Map (FBFM).

Physical Map Revision (PMR) means FEMA's action whereby one or more map panels are physically revised and republished. A PMR is used to change flood risk zones, floodplain and/or floodway delineations, flood elevations, and/or planimetric features.

Recreational vehicle means a vehicle which is:

- (1) built on a single chassis;
- (2) 400 square feet or less when measured at the largest horizontal projections;
- (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.

Special Flood Hazard Area is the land in the floodplain within the Town subject to a one percent or greater chance of flooding in any given year. The area may be designated as Zone A

on the Flood Insurance Rate Map (FIRM). After detailed ratemaking has been completed, Zone A usually is refined into Zones A, AE, AH, or AO.

Start of construction includes substantial improvement and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, 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 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 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 50 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 "start of construction" of the improvement. This 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 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 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."

Threshold Planning Quantity (TPQ) means a quantity designated for each chemical on the list of extremely hazardous substances that triggers notification by facilities to the State that such facilities are subject to emergency planning requirements.

Variance is a grant of relief to a person from the requirement of this ordinance when specific enforcement would result in unnecessary hardship. A variance, therefore, permits construction or development in a manner otherwise prohibited by this ordinance. (For full requirements see Section 60.6 of the National Flood Insurance Program regulations.)

Violation means the failure of a structure or other development to be fully compliant with this Section. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in Section 60.3(b)(5), (c)(4), (c)(10), (d)(3), (e)(2), (e)(4), or (e)(5) of the NFIP regulations is presumed to be in violation until such time as that documentation is provided.

Water surface elevation means the height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929 (or other datum, where specified), of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

(c) General provisions.

(1) Lands to which this Section applies. This Section shall apply to all areas of special flood hazard and areas removed from the floodplain by the issuance of a FEMA Letter of Map Revision Based on Fill (LOMR-F) within the jurisdiction of the Town.

(2) Basis for establishing the areas of special flood hazard. The areas of special flood hazard identified by the Federal Emergency Management Agency as shown on those portions of Flood Insurance Rate Map (FIRM) panels 0802660900C and 0802661025C for unincorporated Weld County, Colorado, effective 9/28/1982, that are currently within the corporate limits of the Town and any revisions thereto are hereby adopted by reference and declared to be a part of this Section.

(3) Compliance. No structure or land shall hereafter be located, altered, or have its use changed without full compliance with the terms of this Section and other applicable regulations. Nothing herein shall prevent the Town from taking such lawful action as is necessary to prevent or remedy any violation. These regulations meet the minimum requirements as set forth by the Colorado Water Conservation Board and the National Flood Insurance Program.

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

(5) Interpretation. In the interpretation and application of this Section, 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.

(6) Warning and disclaimer of liability. The degree of flood protection required by this Section is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. On rare occasions greater floods can and will occur and flood heights may be increased by man-made or natural causes. This Section 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 Section shall not create liability on the part of the community or any official or employee thereof for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made thereunder.

(d) Administration.

(1) Establishment of Floodplain Development Permit.

a. A Floodplain Development Permit shall be obtained before construction or development begins within the town.

b. Application for a Floodplain Development Permit shall be made on forms furnished by the town administrator and may include, but not be limited to, plans in duplicate drawn to scale showing the nature, location, dimensions and elevation of proposed landscape alterations, existing and proposed structures, including the placement of manufactured homes, and the location of the foregoing in relation to areas of special flood hazard. The following information is required:

1. Elevation in relation to mean sea level of the lowest floor (including basement) of all new and substantially improved structures;
2. Elevation in relation to mean sea level to which any nonresidential structure has been flood proofed;
3. A certificate from a registered professional engineer or architect that any nonresidential flood proofed structure shall meet the flood proofing criteria of Section 16-146(e)(1)d.2.;
4. Description of the extent to which any watercourse or natural drainage will be altered or relocated as a result of proposed development; and

c. Maintain a record of all such information in accordance with Section 16-146(d)(4)a.

d. Approval or denial of a Development Permit by the Floodplain Administrator shall be based on all of the provisions of this ordinance and the following relevant factors:

1. The danger to life and property due to flooding or erosion damage;
2. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
3. The danger that materials maybe swept onto other lands to the injury of others;
4. The compatibility of the proposed use with existing and anticipated development;
5. The safety of access to the property in times of flood for ordinary and emergency vehicles;

6. The costs of providing governmental services during and after flood conditions including maintenance and repair of streets and bridges, and public utilities and facilities such as sewer, gas, electrical and water systems;

7. 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;

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

9. The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;

10. The relationship of the proposed use to the comprehensive plan for that area.

(2) Variances

a. Variance procedures.

1. The Board of Adjustment shall hear and render judgment on requests for variances from the requirements of this ordinance.

2. The Board of Adjustment shall hear and render judgment on an appeal only 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 ordinance.

3. Any person or persons aggrieved by the decision of the Board of Adjustment may appeal such decision in the courts of competent jurisdiction.

4. The Floodplain Administrator shall maintain a record of all actions involving an appeal and shall report variances to the Federal Emergency Management Agency upon request.

5. 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 base flood level, providing the relevant factors for variances have been fully considered. As the lot size increases beyond the one-half acre, the technical justification required for issuing the variance increases.

6. Upon consideration of the factors noted above and the intent of this ordinance, the Board of Adjustment may attach such conditions to the granting of variances as it deems necessary to further the purpose and objectives of this Section.

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

8. Variances may be issued for the repair or rehabilitation 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

a. Prerequisites for granting variances.

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

2. Variances shall only be issued upon:

i. showing a good and sufficient cause;

ii. a determination that failure to grant the variance would result in exceptional hardship to the applicant, and

iii. 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.

3. Any application to which a variance is granted shall be given written notice that the structure will be permitted to be built with the 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.

4. 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:

i. the criteria outlined in this Section are met, and

ii. 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.

(3) Designation of the Floodplain Administrator. The Board of Trustees hereby appoints the Town Administrator as the Floodplain Administrator to administer and implement the provisions of this Section and other appropriate sections of 44 CFR (National Flood Insurance Program Regulations) pertaining to floodplain management.

(4) Duties and responsibilities of the Floodplain Administrator. Duties and responsibilities of the Floodplain Administrator shall include, but not be limited to, the following:

a. Maintain and hold open for public inspection all records pertaining to the provisions of this ordinance, including the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures and any floodproofing certificate required by Section 16-146 (d) (1), subsections b. through d. of the Hudson Municipal Code.

b. Review permit application to determine whether proposed building site, including the placement of manufactured homes, will be reasonably safe from flooding.

c. Review, approve or deny all applications for Development Permits required by adoption of this ordinance.

d. Review permits for proposed development to assure that all necessary permits have been obtained from those Federal, State or local governmental agencies (including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334) from which prior approval is required.

e. Inspect all development at appropriate times during the period of construction to ensure compliance with all provisions of this ordinance, including proper elevation of the structure

f. Where interpretation is needed as to the 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 Floodplain Administrator shall make the necessary interpretation.

g. Notify, in riverine situations, adjacent communities and the State Coordinating Agency prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.

h. Ensure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained.

i. When base flood elevation data has not been provided in accordance with Section 16-146(c)(2), the Floodplain Administrator shall obtain, review and reasonably utilize any base flood elevation data and floodway data available from a Federal, State or other source, in order to administer the provisions of this Section.

(e) Provisions for flood hazard reduction.

(1) General standards. In all areas of special flood hazards the following provisions are required for all new construction and substantial improvements:

a. All new construction or substantial improvements shall be designed (or modified) and adequately anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.

b. Construction materials and methods.

1. All new construction and substantial improvements shall be by methods and practices that minimize flood damage.

2. All new construction and substantial improvements shall be with materials resistant to flood damage.

3. All new construction or substantial improvements shall be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

c. Utilities.

1. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;

2. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters; and

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

d. Specific standards. In all areas of special flood hazards where base flood elevation data has been provided as set forth in Sections 16-146(c)(2), 16-146(d)(4)i., 16-146(e)(1)e.3., the following provisions are required:

1. Residential Construction - new construction and substantial improvement of any residential structure shall have the lowest floor (including basement) electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities (including ductwork), elevated to one foot above the base flood elevation. A registered professional engineer, architect, or land surveyor shall submit a certification to the Floodplain Administrator that the standard of this subsection as proposed in Section 16-146(d)(1)b., is satisfied.

2. Nonresidential Construction - new construction and substantial improvements of any commercial, industrial or other nonresidential structure shall either have the lowest floor (including basement), electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities (including ductwork), elevated to one foot above the base flood elevation or together with attendant utility and sanitary facilities, be designed so that below the base flood level the structure 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. A registered professional engineer or architect shall develop and/or review structural design, specifications, and plans for the construction, and shall certify that the design and methods of construction are in accordance with accepted standards of practice as outlined in this subsection. A record of such certification which includes the specific elevation (in relation to mean sea level) to which such structures are flood proofed shall be maintained by the Floodplain Administrator.

3. Enclosures - New construction and substantial improvements, with fully enclosed