

Chapter 213
FLOOD DAMAGE PREVENTION

GENERAL REFERENCES

Land use procedures — See Ch. 53.

Subdivision of land — See Ch. 369.

Site plan review — See Ch. 349.

Zoning — See Ch. 421.

ARTICLE I

Statutory Authorization, Findings of Fact, Purpose and Objectives**§ 213-1. Statutory authorization.**

The Legislature of the State of New Jersey has in N.J.S.A. 40:48-1, et seq., delegated the responsibility to local governmental units to adopt regulations designed to promote public health, safety, and general welfare of its citizenry. Therefore, the City Council of the City of Rahway, of New Jersey does ordain as follows.

§ 213-2. Findings of fact.

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

§ 213-3. Statement of purpose.

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

- A. To protect human life and health;
- B. To minimize expenditure of public money 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, bridges located in areas of special flood hazard;
- F. To help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to minimize future flood blight areas;
- G. To insure 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.

§ 213-4. Methods of reducing flood losses.

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

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

ARTICLE II
Definitions

§ 213-5. Definitions.

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

ACTS — The Flood Hazard Area Control Act, N.J.S.A. 58:16A-50 et seq., the New Jersey Water Pollution Control Act, N.J.S.A. 58-10A-1 et seq., and N.J.S.A. 13:1D-1 et seq.

APPEAL — A request for a review of the City Engineer interpretation of any provision of this chapter or a request for a variance.

AREA OF SHALLOW FLOODING — A designated AO or AH Zone on a community's Flood Insurance Rate Map with a one-percent-or-greater chance of flooding to an average depth of one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

AREA OF SPECIAL FLOOD HAZARD — The land in the floodplain within a community subject to a one-percent-or-greater chance of flooding in any given year.

BASE FLOOD — The flood having a one-percent chance of being equaled or exceeded in any given year.

BASE FLOOD ELEVATION (BFE) — The elevation of the one-hundred-year flood, rounded to the nearest foot.

BASEMENT — Any area of the building having its floor subgrade (below ground level) on all sides.

BREAKAWAY WALL — 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.

CHANNEL — A watercourse with a definite bed and banks which confine and conduct continuously or intermittently flowing water.

DEPARTMENT — The State of New Jersey Department of Environmental Protection.

DEVELOPMENT — Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials located within an area of special flood hazard.

ELEVATED BUILDING — A nonbasement building built in the case of a building in an area of special flood hazard to have the top of the elevated floor elevated above the ground level by means of piling, columns (posts

and piers), or shear walls parallel to the flow of the water, and adequately anchored so as not to impair the structural integrity of the building during a flood up to the magnitude of the base flood. In an area of special flood hazard, "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 floodwaters.

ENCROACHMENT — Any obstruction within a delineated floodplain.

FILL — Any material placed within the floodplain or the watercourses that create them which will displace floodwaters.

FLOOD DAMAGE POTENTIAL — The susceptibility of a specific land use at a particular site to be damaged by potential floods at that site, as well as increased off-site flooding or flood-related damages caused by such land use.

FLOOD OR FLOODING — 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 or runoff of surface waters from any source.

FLOOD FRINGE — That portion of the flood hazard area outside of the floodway.

FLOOD HAZARD AREA — The area designated Zone A and Zone AE, area of a special flood hazard, with or without base flood elevations, on the official Flood Insurance Rate Map of the City of Rahway as most recently issued and approved by the Federal Insurance Administrator, which map is hereby adopted by reference and declared to be a part of this chapter.¹ The City Engineer shall make interpretations, where needed, as to the exact location of the boundaries of the areas of the special flood hazard (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in this chapter.

FLOOD HAZARD ELEVATION — The one-hundred-year-flood elevation as shown on the Flood Insurance Rate Map of the City of Rahway.²

FLOOD INSURANCE RATE MAP (FIRM)³ — The official map on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

FLOOD INSURANCE STUDY (FIS) — The official report provided in which the Federal Insurance Administration has provided flood profiles, as well as the Flood Insurance Rate Map and the water surface elevation of the base flood.

1. Editor's Note: Said map is on file in the City offices.

2. Editor's Note: Said map is on file in the City offices.

3. Editor's Note: Said map is on file in the City offices.

FLOODPLAIN MANAGEMENT REGULATIONS — 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 — 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 0.2 of a foot.

FREEBOARD (FRB) — A factor of safety added to the base flood elevation (BFE) to compensate for many unknown factors such as wave action, debris, bridge opening, and the hydrological effect of urbanization of the watershed. Freeboard (FRB) within this chapter means the base flood elevation (BFE) plus one foot.

HIGHEST ADJACENT GRADE — The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

HISTORIC STRUCTURE — Any structure that is:

- A. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
- B. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district preliminarily determined by the Secretary to qualify as a registered historic district;
- C. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or
- D. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:
 - (1) By an approved state program as determined by the Secretary of the Interior; or
 - (2) Directly by the Secretary of the Interior in states without approved programs.

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

MANUFACTURED HOME — A structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term "manufactured home" does not include a recreation vehicle.

MANUFACTURED HOME PARK OR MANUFACTURED HOME SUBDIVISION — A parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

NEW CONSTRUCTION — Structures for which the start of construction commenced on or after the effective date of a floodplain regulation adopted by a community and includes any subsequent improvements to such structures.

NEW MANUFACTURED HOME PARK OR SUBDIVISION — 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 the floodplain management regulations adopted by the municipality.

OBSTRUCTION — Is not limited to, any structure, fill or other material placed in the floodplain which may impede, retard, or change the direction of the flow of water either by itself or by catching or collecting debris carried by such water or that is placed where the flow of water might carry the same downstream and constitute a hazard to life or property.

PERMITTED USE — Any use defined in § 213-20 which is not forbidden or restricted by any other ordinance. Permitted uses shall be allowed subject to the provisions of this chapter.

PERSON — Corporations, companies, associations, societies, firms, partnerships and jointstock companies, as well as individuals, the state and all political subdivisions of the state or any agencies or instrumentalities thereof.

PESTICIDE — Any substance or mixture of substances labeled, designed, intended for or capable of use in preventing, destroying, repelling, sterilizing or mitigating any insects, rodents, nematodes, predatory animals, fungi, weeds and other forms of plant or animal life or viruses, except viruses on or in living man or other animals. The term "pesticide" shall also include any substance or mixture or substances labeled, deigned or intended for use as a defoliant, desiccant or plant regulator.

PROHIBITED USE — Any use which shall not be allowed under any circumstances.

RECREATIONAL VEHICLE — A vehicle which is:

- A. Built on a single chassis;
- B. Four hundred square feet or less when measured at the longest horizontal projections;

- C. Designed to be self-propelled or permanently towable by a light-duty truck; and
- D. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

RESTRICTED USE — Any use which requires a restricted use permit.

START OF CONSTRUCTION — For other than new construction or substantial improvements under the Coastal Barrier Resources Act (P.L. No. 97-348), includes substantial improvements 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 a 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 or 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.

STREAM ENCROACHMENT — Any man-made alteration, construction, development or other activity within the areas within the jurisdiction of this chapter.

STREAM ENCROACHMENT PERMIT — A permit issued by the Department or delegated agency under the provisions of the Acts.

STRUCTURE — A walled and roofed building, a manufactured home, or a gas or liquid storage tank, that is principally above ground. In addition, a structure also means any assembly of materials above or below the surface of land or water including, but not limited to, buildings, fences, dams, fills, levees, bulkheads, dikes, jetties, embankments, causeways, culverts, roads, railroads, bridges and the facilities of any utility or governmental agency. Trees and vegetation are not structures.

SUBSTANTIAL DAMAGE — Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50% of the market value of the structure before the damage occurred.

SUBSTANTIAL IMPROVEMENT — Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which exceeds 50% of the market value of the structure before the start of construction of the improvement. This term includes structures which have incurred

substantial damage, regardless of the actual repair work performed. The term does not, however, include either:

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

VARIANCE — A grant of relief from the requirements of this chapter which permits construction in a manner that would otherwise be prohibited by this chapter.

ARTICLE III
General Provisions

§ 213-6. Lands to which this chapter applies.

This chapter shall apply to all areas of special flood hazards within the jurisdiction of the City of Rahway.

**§ 213-7. Basis for establishing areas of special flood hazard.
[Amended 8-14-2006 by Ord. No. O-28-06]**

- A. The areas of special flood hazard for the City of Rahway, Community No. 345314, are identified and defined on the following documents prepared by the Federal Emergency Management Agency:
- (1) A scientific and engineering report entitled "Flood Insurance Study, Union County, New Jersey All Jurisdictions," dated September 20, 2006; and
 - (2) Flood Insurance Rate Map for Union County, New Jersey (All Jurisdictions), as shown on Index and panel numbers 0032, 0033, 0043, 0044, 0047, 0048, whose effective date is September 20, 2006.
- B. The above documents are hereby adopted and declared to be a part of this chapter. The Flood Insurance Study and maps are on file at 1 City Hall Plaza, Rahway, New Jersey 07065.

§ 213-8. Penalties for noncompliance.

No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this chapter and other applicable regulations. Violation of the provisions of this chapter by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a misdemeanor. Any person who violates this chapter or fails to comply with any of its requirements shall upon conviction thereof, be fined not more than \$500 or imprisoned for not more than 90 days, or both, for each violation, and in addition shall pay all costs and expenses involved in the case. Each day in which such violation continues shall constitute a separate violation or offense. Nothing herein contained shall prevent the City of Rahway from taking such other lawful action as is necessary to prevent or remedy any violation.

§ 213-9. Abrogation and greater restrictions.

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

§ 213-10. 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.

§ 213-11. Warning and disclaimer of liability.

- A. 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 area of special flood hazards or uses permitted within such areas will be free from flooding or flood damages.
- B. This chapter shall not create liability on the part of the City of Rahway, any officer or employee thereof or the Federal Insurance Administration, for any flood damages that result from reliance on this chapter or any administrative decision lawfully made thereunder.

ARTICLE IV
Administration

§ 213-12. Establishment of development permit.

- A. A development permit shall be obtained before construction or development begins within any area of special flood hazard established in § 213-7. Application for a development permit shall be made on forms furnished by the City Engineer and/or Planning Board 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.
- B. Specifically, the following information is required:
- (1) Elevation in relation to mean sea level, of the lowest floor (including basement) of all structures;
 - (2) Elevation in relation to mean sea level to which any structure has been floodproofed;
 - (3) Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in § 213-17B; and
 - (4) Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

§ 213-13. Designation of local administrator.

The City Engineer and/or Planning Board, as required, are hereby appointed to administer and implement this chapter by granting or denying development permit applications in accordance with its provisions.

§ 213-14. Duties and responsibilities of administrator.

Duties of the City Engineer and/or Planning Board for permit review shall include, but not be limited to:

- A. Permit review.
- (1) The City Engineer shall review all development permits to determine that the permit requirements of this chapter have been satisfied.
 - (2) The Planning Board shall 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) The City Engineer shall review all development permits to determine if the proposed development is located in the floodway, and assure that the encroachment provisions of § 213-18A are met.
- B. Review of construction or development plans. No construction or development shall take place within any flood hazard area unless a site plan and any other required information shall have been submitted to the Planning Board for its review and approval in accordance with Chapter 53, Land Use Procedures, except for one- and two-family dwellings, in which case the site plan shall be reviewed and approved by the City Engineer. This chapter shall apply to all areas of special flood hazard within the jurisdiction of the City of Rahway. The fee for review and approval by the City Engineer under this section shall be \$275. **[Amended 9-8-2008 by Ord. No. O-23-08]**
- (1) Said site plan shall be drawn to a scale not smaller than one inch equals 50 feet, and if the proposed use is not a permitted use, said plan shall show, in addition to the information required under other ordinances, the following information:
- (a) The existing and proposed principal building or structure and all accessory buildings or structures, if any.
 - (b) The proposed finished grade elevations at the corners of any structure or structures.
 - (c) Existing topography and proposed grading at contour intervals of two feet or less.
 - (d) The lowest elevation within any proposed structure after its completion.
 - (e) The location, type and size of all existing and proposed storm drainage facilities and other utilities servicing, and to service the premises in question.
 - (f) The location, size and nature of all existing and proposed drainage rights-of-way or easements and the location, size and description of any lands to be dedicated to the municipality or county.
 - (g) The layout and size of existing and proposed public streets.
 - (h) The elevation of any existing or proposed pumping facilities.
 - (i) The nature and extent of any construction alterations or repairs.
 - (j) The location of the proposed and existing building on the site.
 - (k) The location, size and nature of the entire lot or lots in question and any contiguous lots owned by the applicant or in which the applicant has a direct or indirect interest.

- (l) Proof of a stream encroachment permit or other approval obtained from the Department.
 - (m) The extent of filling of the land, if any.
 - (n) The location, type and size of all existing and proposed erosion and siltation control measures, such as slope protection, soil stabilization, sedimentation basins, sediment traps, headwalls, aprons and the like.
 - (o) Any and all other information and data necessary to meet any of the requirements of this chapter.
- (2) In addition, where required by the Planning Board, the developer shall furnish information relating to subsurface conditions, bases on percolation tests and soil borings or probes.
 - (3) In reviewing any proposed construction or development, the Planning Board shall be reasonably assured that any structure, when built or altered, can be occupied without peril to the health or safety of the occupant and that the proposed land use:
 - (a) Has an inherent low flood-damage potential.
 - (b) Either acting alone or in combination with existing or future uses, does not obstruct flood flows or increase peak flood heights more than 0.2 of a foot at any point or adversely increase flood velocities.
 - (c) Does not affect adversely the water-carrying capacity of any delineated floodway and/or channel.
 - (d) Does not adversely affect the drainage of adjacent areas.
 - (e) Does not unduly stress the natural environment of the floodplain or degrade the quality of surface water or the quality and quantity of groundwaters.
 - (f) Does not require channel modification or relocation unless approved by the Department.
 - (4) The Planning Board shall act upon any site plan provided for in this article in accordance with Chapter 53, Land Use Procedures. Planning Board disapproval shall include written findings upon any site plan element found contrary to the provisions or intent of this chapter.
- C. Use of other base flood and floodway data. When base flood elevation and floodway data has not been provided in accordance with § 213-7, Basis for establishing areas of special flood hazard, the City Engineer 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 § 213-17A, Specific standards, Residential construction, and § 213-17B, Specific standards, Nonresidential construction.

D. Information to be obtained and maintained.

- (1) Obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement. The City Engineer shall maintain for public inspection all records pertaining to the provisions of this chapter.
- (2) For all new or substantially improved floodproofed structures:
 - (a) Verify and record the actual elevation (in relation to mean sea level); and
 - (b) Maintain the floodproofing certifications required in § 213-12C.
 - (c) Maintain for public inspection all records pertaining to the provisions of this chapter.

E. Alteration of watercourses.

- (1) Notify adjacent communities and the New Jersey Department of Environmental Protection prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.
- (2) Require that maintenance is provided within the altered or relocated portion of said watercourse so the flood-carrying capacity is not diminished.

F. Interpretation of firm boundaries. Make interpretations where 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 filed conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in § 213-15.

G. Request for interpretation of location of site; cost. Where any individual or entity requires an interpretation of the location of a particular site pursuant to the mapped boundaries of the flood hazard areas shown on the Official Flood Insurance Rate Map of the City of Rahway, the request shall be made through the office of the City Engineer for the City of Rahway. The cost for such determination shall be \$15, payable by cash, certified check or money order to the City of Rahway.

§ 213-15. Variance procedure.

A. Appeal board.

- (1) The Planning Board as established by City of Rahway shall hear and decide appeals and requests for variances from the requirements of this chapter.
- (2) The Planning Board shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the City Engineer in the enforcement or administration of this chapter.
- (3) Those aggrieved by the decision of the Planning Board, or any taxpayer, may appeal such decision in accordance with the Municipal Land Use Law, Chapter 291, Laws of N.J. 1975.⁴
- (4) In passing upon such applications, the Planning Board shall consider all technical evaluations, all relevant factors, standards specified in other sections of this chapter, and:
 - (a) The danger that materials may be swept onto other lands to the injury of others;
 - (b) The danger to life and property due to flooding or erosion damage;
 - (c) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
 - (d) The importance of the services provided by the proposed facility to the community;
 - (e) The necessity to the facility of a waterfront location, where applicable;
 - (f) The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
 - (g) The compatibility of the proposed use with existing and anticipated development;
 - (h) The relationship of the proposed use to the comprehensive plan and floodplain management program of that area;
 - (i) The safety of access to the property in times of flood for ordinary and emergency vehicles;
 - (j) The expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site; and
 - (k) The costs of providing governmental services during and after flood conditions, including maintenance and repair of public

4. Editor's Note: See N.J.S.A. 40:55D-1 et seq.

utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.

- (5) Upon consideration of the factors of § 213-15A(4) and the purposes of this chapter, the Planning Board may attach such conditions to the granting of variances as it deems necessary to further the purposes of this chapter.
- (6) The City Engineer shall maintain the records of all appeal actions, including technical information, and report any variances to the Federal Insurance Administration upon request.

B. Conditions for variances.

- (1) 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 base flood level, providing Subsections A(4)(a) through (k) in § 213-15A(4) have been fully considered. As the lot size increases beyond the one-half acre, the technical justification required for issuing the variance increases.
- (2) 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 an historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.
- (3) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
- (4) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
- (5) Variances shall only be issued upon:
 - (a) A showing of good and sufficient cause;
 - (b) A determination that failure to grant the variance would result in exceptional hardship to the applicant; and
 - (c) a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public as identified in § 213-15A(4), or conflict with existing local laws or ordinances.
- (6) Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below the base flood elevation and that the cost of

flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

- C. Appeals. An appeal from any decision of the Planning Board which is made pursuant to any provision of this chapter shall be taken according to the procedures of §§ 53-51 and 53-52 of the Land Use Procedures Chapter.⁵

5. Editor's Note: See Ch. 53, Land Use Procedures.

ARTICLE V

Provisions for Flood Hazard Reduction**§ 213-16. General standards.**

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

A. Anchoring.

- (1) All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.
- (2) All manufactured homes shall be anchored to resist flotation, collapse or lateral movement. Methods of anchoring may include, but are not to be limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable state and local anchoring requirements for resisting wind forces.

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.

C. Utilities.

- (1) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system;
- (2) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharge from the systems into floodwaters;
- (3) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding; and
- (4) All new electrical, heating, ventilation, plumbing and air-conditioning equipment and other service facilities shall be designed and/or located a minimum of one foot above the base flood elevation so as to prevent water from entering or accumulating within the components during conditions of flooding.

D. Subdivision proposals.

- (1) All subdivision proposals shall be consistent with the need to minimize flood damage;

- (2) All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage;
 - (3) All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; and
 - (4) Base flood elevation data shall be provided for subdivision proposals and other proposed developments which contain at least 50 lots or five acres (whichever is less).
- E. Enclosure openings. All new construction and substantial improvements having fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding 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 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. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, or other covering or devices provided that they permit the automatic entry and exit of floodwaters.

§ 213-17. Specific standards.

In all areas of special flood hazards where base flood elevation data have been provided as set forth in § 213-7, Basis for establishing areas of special flood hazard, or in § 213-14C, Use of other base flood data, the following standards are required:

- A. Residential construction.
- (1) New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to a minimum of one foot above the base flood elevation; and
 - (2) Require within any AO or AE zones on the municipality's FIRM that all new construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated above the highest adjacent grade at least as high as the depth number specified in feet (at least two feet if no depth number is specified). And, require adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures.
- 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 to the level of the base flood elevation or together with the attendant utility and sanitary facilities, shall;

- (2) Be required within any AO or AH Zone on the municipality's FIRM that all new construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated above the highest adjacent grade, at least as high as the depth number specified in feet (at least two feet if no depth number is specified), and, require adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures; or
- (3) Be floodproofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water;
- (4) Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and,
- (5) 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 the applicable provisions of this subsection. Such certification shall be provided to the official as set forth in § 213-14D(2).

C. Manufactured homes.

- (1) Manufactured homes shall be anchored in accordance with § 213-16A(2).
- (2) All manufactured homes to be placed or substantially improved within an area of special flood hazard shall be elevated on a permanent foundation such that the top of the lowest floor is at or above the base flood elevation.

§ 213-18. Floodways.

Located within areas of special flood hazard established in § 213-7 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

- A. Prohibit encroachments, including fill, new construction, substantial improvements, and other development unless a technical evaluation demonstrates that encroachment shall not result in any increase in flood levels during the occurrence of the base flood discharge.
- B. If § 213-18A is satisfied, all new construction and substantial improvements must comply with Article V, Provisions for flood hazard reduction.

- C. In all areas of special flood hazard in which base flood elevation data has been provided and no floodway has been designated, the cumulative effect of any proposed development, when combined with all other existing and anticipated development, shall not increase the water surface elevation of the base flood more than 0.2 of a foot at any point.

ARTICLE VI
Floodplain Requirements

§ 213-19. Preservation of natural systems.

It is hereby found that natural floodplains display complex intimate relationships among streams, periodic flooding, soils, vegetation, fish and wildlife and that periodic flooding of lowland areas, marshes and swamps adjacent to stream channels produces a rich physical - chemical environment for many living organisms. It is further found that floodplains contain biological communities which are among the most productive of natural systems and perform the following functions essential to the natural environment:

- A. Passage and storage of storm floodwaters.
- B. Removal of sediment loads from streams through deposition.
- C. Replenishment of groundwater supplies through soil infiltration.
- D. Dissipation of energy of flood flows, thereby reducing downstream destruction.
- E. Providing of areas of recreational and aesthetic pleasure.

§ 213-20. Permitted land use.

- A. For purposes of this chapter, permitted uses are land uses which have an inherent low flood-damage potential and which do not:
 - (1) Conflict with the provisions of Chapter 421, Zoning, or any other ordinance.
 - (2) Require fill other than the emplacement of topsoil not to exceed three inches in depth. However, structures of any kind within the floodway plus floodway fringe must have adequate anchorage to resist movement or flotation during flooding.
 - (3) Require channel modification or relocation.
 - (4) Obstruct flood flows.
 - (5) Adversely affect the drainage of adjacent areas.
 - (6) Reduce ground absorption of stormwater.
 - (7) Require equipment or material storage.
 - (8) Adversely affect the water-carrying or storage capacity of any channel, floodway, or floodplain.
 - (9) Cause degradation of water quality and/or the natural environment.

- B. Permitted uses include, but are not limited to, the following, to the extent that they do not conflict with Chapter 421, Zoning, or any other ordinance:
- (1) Agriculture: general farming, pasture, grazing, outdoor plant nurseries, horticulture, viticulture, truck farming, forestry, sod farming and wild-crop harvesting.
 - (2) Private and public recreation: golf courses, tennis courts, basketball courts, baseball fields, other playing fields, driving ranges, archery ranges, picnic grounds, boat launching ramps, swimming areas, parks, wildlife and nature preserves, fish hatcheries, fishing areas and hiking and horseback-riding trails.
 - (3) Residential: lawns, gardens parking areas and play areas.
- C. Conditions. The municipality may impose such conditions on permitted uses as it deems appropriate to promote the public safety, health and welfare; to protect public and private property, wildlife and fisheries; and to preserve, protect and enhance the natural environment of the floodplain.

§ 213-21. Restricted uses.

- A. For purposes of this chapter, restricted uses are land uses within the floodplain which involve:
- (1) Structures or fill other than that permitted in § 213-20A(2) above.
 - (2) Storage of materials or equipment.
 - (3) Channel modification and/or relocation.
 - (4) Extraction of sand, gravel or other materials.
- B. Restricted uses, in addition, shall include, but are not limited to, the following, to the extent that they are not prohibited by any other local ordinance or state statute, rule or regulation:
- (1) All uses listed under § 213-20 which involve also the factors in Subsection A above.
 - (2) Railroads, streets, bridges, utility transmission lines and associated facilities and pipelines.
 - (3) Docks, piers, wharves, boat rentals and marinas.
 - (4) Storage yards.
- C. Permits.
- (1) No person shall engage in a restricted use within a delineated floodplain until he has received approval by the Planning Board, a permit from the Building Inspector and a stream encroachment

permit or other approval issued by the Department. Notice of a hearing on an application for development shall be given by the applicant in accordance with the provisions of Chapter 53, Land Use Procedures.

- (2) Such notifications shall include the name and address of the applicant, the location of the proposed use and an abbreviated description of the proposed use, and announcement as to where and at what times the complete application may be reviewed and to whom and by what date interested parties may communicate their positions concerning the application and any data that they may have developed in reference to the effects of the proposed use. The Planning Board shall review the restricted use permit application and all information received from interested parties under § 213-14B. The Building Inspector shall issue a permit only if the Planning Board finds that the proposed use:
 - (a) Has low flood-damage potential.
 - (b) Either acting alone or in combination with existing or future uses, does not obstruct flood flows or increase peak flood heights more than 0.2 of a foot at any point or adversely increase flood velocities.
 - (c) Does not affect adversely the water-carrying capacity of any delineated floodway and/or channel.
 - (d) Does not adversely affect the drainage of adjacent areas.
 - (e) Does not stress unduly the natural environment of the floodplain or degrade the quality of surface water or the quality and quantity of groundwaters.
- D. In reviewing the permit application and arriving at its finding, the Planning Board shall consult with the City Engineer and consider the following criteria:
- (1) The danger to life and property due to increased flood heights or velocities caused by encroachments.
 - (2) The danger that materials may be swept onto other lands or downstream to the injury of others.
 - (3) The proposed water supply and sanitation systems and the insulation of these systems from disease, contamination and unsanitary conditions resulting from flooding.
 - (4) The susceptibility of the proposed use to flood damage and the effects of such damage.
 - (5) The need for a waterfront location.
 - (6) The availability of alternate locations not subject to flooding.

- (7) The duration, rate of rise and sediment transport of floodwaters expected at the site.
 - (8) The safety of access to the property in times of flood for ordinary and emergency vehicles.
 - (9) The extent to which the hydraulic capacity of the floodway will be disrupted.
 - (10) The degree to which the proposed use serves the general public's health, safety and welfare.
 - (11) The degree to which any aspect of food chain or plant, animal, fish or human life processes are affected adversely within or beyond the proposed use area.
 - (12) The degree to which the proposed activity alters natural water flow or water temperature.
 - (13) The degree to which the proposed use provides facilities for the proper handling of litter, trash, refuse and sanitary and industrial waste.
 - (14) The degree to which irreplaceable land types will be destroyed.
 - (15) The degree to which the natural, scenic and aesthetic values at the proposed activity site can be retained.
 - (16) The degree to which materials not subject to major damage by floods are firmly anchored to prevent flotation and/or are readily removable from the area within the time available after flood warning.
- E. If the Planning Board finds that the proposed use would violate or tend to violate the purposes and intent of this chapter, the Planning Board may deny the application or may approve the application and impose such permit conditions as are necessary to promote the public safety, health and welfare, to protect public and private property, wildlife and fisheries and to preserve, protect and enhance the natural environment of the floodplain. These conditions may include, but are not limited to, the following:
- (1) Modification of waste disposal and water supply facilities.
 - (2) Imposition of operational controls, sureties and deed restrictions.
 - (3) Requirements for construction of stormwater detention facilities channel modifications, dikes, levees and other protective measures.
 - (4) Installation of an adequate flood-warning system.

- (5) Postponement of development until such time as protective measures are installed or until the floodway and flood hazard area have been delineated by the Department or municipality.
- F. Within all special flood hazard areas, where applicable, the Planning Board shall condition restricted use permits as follows:
- (1) Fill shall be no lower than one foot above the flood hazard elevation and shall extend at such height for a distance of at least 15 feet beyond the limits of any structure erected thereon.
 - (2) Structures on fill shall be built so that the first floor and/or basements are at a minimum of one foot above the flood hazard elevation.
 - (3) Structures not placed on fill shall be otherwise elevated so that the lowest floor is at a minimum of one foot above the base flood elevation or shall be floodproofed to a minimum of one foot above the base flood elevation. Floodproofing alone shall not be adequate for single and multifamily residences, hospitals, nursing homes, school day-care centers and similar uses.
 - (4) Enclosure opening. For all new construction and substantial improvements, fully enclosed areas below the lowest floor that are subject to flooding 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 covering or devices, provided that they permit the automatic entry and exit of floodwaters.
 - (5) All manufactured homes shall be anchored to resist flotation, collapse or lateral movement. Methods of anchoring may include but are not limited to use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable state and local anchoring requirements for resisting wind forces.
 - (6) All manufactured homes to be placed or substantially improved within an area of special flood hazard shall be elevated on a permanent foundation such that the top of the lowest floor is a minimum of one foot above the base flood elevation.

- (7) Floodproofing measures for nonresidential construction shall be consistent with the flood-protection elevation for the particular area, flood velocities, durations, rates of rise, hydrostatic and hydrodynamic forces and other similar factors. The Planning Board shall require the applicant to submit a plan or document certified by a registered professional engineer that the floodproofing measures are consistent with the flood hazard elevation and associated flood factors. Any and all of the following floodproofing measures shall be required:
- (a) Anchorage to resist flotation, collapse and lateral movement.
 - (b) Installation of watertight doors, bulkheads and shutters or similar devices.
 - (c) Reinforced walls to resist water pressures.
 - (d) Use of paints, membranes or mortars to reduce seepage of water through walls.
 - (e) Addition of weight to structures to resist flotation.
 - (f) Installation of pumps to lower water levels in structures.
 - (g) Construction of water supply and waste treatment systems in a manner which prevents the entrance of floodwaters.
 - (h) Pumping facilities, or comparable measures, for the subsurface drainage systems of buildings to relieve external foundation wall and basement flood pressure.
 - (i) Construction that resists rupture or collapse caused by water pressure or floating debris.
 - (j) Installation of valves or controls on sanitary and storm drains which will permit the drains to be closed to prevent the backup of sewage or stormwaters into the structure. Gravity drainage of basements may be eliminated by mechanical devices.
 - (k) Electrical, heating, ventilation, plumbing and air-conditioning equipment, including ductwork, and other service facilities shall be designed and/or located a minimum of one foot above the base flood elevation, so as to prevent water from entering or accumulating within the components during conditions of flooding.
 - (l) Storage facilities for chemicals, explosives, buoyant materials, flammable liquids or other toxic or hazardous materials shall be situated above the flood hazard elevation and shall be floodproofed to prevent flotation of storage containers or damage to storage containers which could result in the escape of toxic materials into the floodwaters.

- (m) Use of construction materials which are resistant to water damage.

§ 213-22. Preexisting structures and uses.

- A. Structures or land uses which existed on or before the effective date of this chapter may be permitted to continue, subject to the following conditions:
 - (1) If any preexisting structure is destroyed by any means, including floods, to an extent of 50% or more of its replacement cost at time of destruction, it shall not be reconstructed, except in conformity with the provisions of this chapter.
 - (2) No preexisting structure shall be moved, altered, expanded, changed or enlarged unless a restricted use permit has been applied for and received. This provision does not apply to routine maintenance and repair, provided that such maintenance and repair does not increase the flood damage potential of the structure.
 - (3) No preexisting use of land or structures shall be modified so as to increase its flood damage potential, unless a restricted use permit has been applied for and received.
 - (4) The first (initial) use of structures completed under the provisions of this section shall be considered preexisting uses.
- B. If actual construction of a structure is underway on or before the effective date of this chapter, then such construction may be completed without a restricted use permit. "Actual construction" is hereby defined to include the placing of construction materials in a permanent position and fastened in a permanent manner. The provisions of Subsection A above shall apply to such structures upon the completion of construction.
- C. Structures in the floodway abandoned for six consecutive months or longer and structures abandoned for 12 consecutive months or longer in the flood fringe area after the effective date of this chapter shall not qualify as preexisting uses.

§ 213-23. Prohibited uses.

- A. Floodway. No person shall hereafter engage in, cause or permit other persons to engage in prohibited uses within a delineated floodway. The following uses shall be prohibited:
 - (1) Placing, depositing or dumping any solid waste, garbage, refuse, trash, rubbish or debris.
 - (2) Dumping or discharging untreated domestic sewage or industrial waste, either solid or liquid.

- (3) The storage or disposal of pesticides.
 - (4) The storage or processing of materials that are, in time of flooding, buoyant, flammable or explosive.
 - (5) The storage or processing of hazardous materials that could be injurious in time of flooding to human, animal or plant life.
 - (6) The erection of structures for human or animal habitation.
 - (7) Placing or occupying manufactured homes.
- B. Flood fringe area. No person shall engage in, cause or permit other persons to engage in prohibited uses within a delineated flood fringe area. The following uses shall be prohibited:
- (1) Placing, depositing or dumping any solid waste, garbage, refuse, trash, rubbish or debris.
 - (2) Dumping or discharging untreated domestic sewage or industrial waste, either solid or liquid.
 - (3) The disposal of pesticides.
 - (4) Placing or occupying manufactured homes.

§ 213-24. Flood insurance.

Flood insurance, in accordance with the National Flood Insurance Program of the Federal Emergency Management Agency, shall not be mandatory for all developments in the floodplain.

§ 213-25. Issuance of permits.

No building permits shall be issued by the Building Inspector for any proposed structure or development to be located within any floodplain area unless the Planning Board shall have approved the site plan and any other data submitted in accordance with Article III, which complies fully with all the provisions of this chapter. No certificate of occupancy shall be issued by the Building Inspector unless proof has been submitted to him that all conditions of site plan approval and all other provisions of this chapter have been fully complied with.