

FLOOD DAMAGE PREVENTION

Chapter 36

FLOOD DAMAGE PREVENTION

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[HISTORY: Adopted by the Mayor and Council of the Borough of Helmetta 10-10-84.¹ Amendments noted where applicable.]

GENERAL REFERENCES

Moving of buildings — See Ch. 27.
Uniform construction codes — See Ch. 29A.
Housing standards — See Ch. 39.
Land use procedures — See Ch. 40.

Be it ordained by the Mayor and Council of the Borough of Helmetta in the County of Middlesex and State of New Jersey:

ARTICLE I

General Provisions

§ 36-1. Statutory authorization. [Amended 10-19-88]

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 the public health, safety and general welfare of its citizenry. Therefore, the Mayor and Council of the Borough of Helmetta of New Jersey does ordain as follows.

¹ Editor's Note: Former Ch. 36, Flood Damage Control, was superseded 10-10-84 by this ordinance.

§ 36-2. Findings of fact.

- A. The flood hazard areas of the Borough of Helmetta 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 affects 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, damage uses in other areas. Uses that are inadequately flood-proofed, elevated or otherwise protected from flood damage also contribute to the flood loss.

§ 36-3. 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 and 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 ensure that potential buyers are notified that property is in an area of special flood hazard.

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

§ 36-4. 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 floodwaters.
- D. Controlling filling, grading, dredging and other development which may increase flood damage.
- E. Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas.

§ 36-5. Definitions. [Amended 10-19-88]

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.

APPEAL — A request for a review of the Construction Code Official's interpretation of any provision of this chapter or a request for a variance.

AREA OF SHALLOW FLOODING — A designated AO or VO Zone on the Flood Insurance Rate Map (FIRM). The base flood depths range from one (1) to three (3) feet; a clearly

defined channel does not exist; the path of flooding is unpredictable and indeterminate; and velocity flow may be evident.

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.

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.

COASTAL HIGH-HAZARD AREA — The area subject to high-velocity waters, including but not limited to hurricane wave wash or tsunamis. The area is designated on a FIRM as Zone V1 - 30.

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 located within the 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 or, in the case of a building in a coastal high-hazard area, to have the bottom of the lowest horizontal structural member 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 of 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. In areas of coastal high-hazard, "elevated building" also includes a building otherwise meeting the definition of "elevated building," even though the lower area is enclosed by means of breakaway walls.

FLOOD or FLOODING — A general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland or tidal waters and/or the unusual and rapid accumulation or runoff of surface waters from any source.

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

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

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 two-tenths (0.2) foot.

LOWEST FLOOR — The lowest floor of the lowest enclosed area, including basement. An unfinished or flood-resistant enclosure, usable 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 as to render the structure in violation of other applicable nonelevation design requirements.

MANUFACTURED HOME — A structure, transportable in one (1) 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. For floodplain management purposes, the term "manufactured home" also includes park trailers, travel trailers and other similar vehicles placed on a site for greater than one hundred

eighty (180) consecutive days. For insurance purposes, the term "manufactured home" does not include park trailers, travel trailers and other similar vehicles.

MANUFACTURED HOME PARK or MANUFACTURED HOME SUBDIVISION — A parcel or contiguous parcels of land divided into two (2) 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 this chapter.

SAND DUNES — Naturally occurring accumulations of sand in ridges or mounds landward of the beach.

START OF CONSTRUCTION [For other than new construction or substantial improvements under the Coastal Barrier Resources Act (P.L. 97-348)] — Includes substantial improvement and means the date the building permit was issued, provided that the actual "start of construction," repair, reconstruction, placement or other improvement was within one hundred eighty (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, 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.

STRUCTURE — A walled and roofed building, a manufactured home or a gas or liquid storage tank that is principally above ground.

SUBSTANTIAL IMPROVEMENT — Any repair, reconstruction or improvement of a structure, the cost of which

equals or exceeds fifty percent (50%) of the market value of the structure either before the improvement or repair is started or, if the structure has been damaged and is being restored, before the damage occurred. For the purposes of this definition, "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure. The term does not, however, include either any project for improvement of a structure to comply with existing state or local health, sanitary or safety code specifications which are solely necessary to assure safe living conditions or any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places.

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 II

Scope and Interpretation; Penalties

§ 36-6. Scope.

This chapter shall apply to all areas of special flood hazard within the jurisdiction of the Borough of Helmetta.

§ 36-7. Basis for establishing areas of special flood hazard.

The areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled the "Flood Insurance Study for the Borough of Helmetta," dated April 16, 1984, or the most current Federal Emergency Management Act Federal Insurance Study with accompanying Flood Insurance Rate Maps and Flood Boundary - Floodway Maps is hereby adopted by reference and declared to be a part of this chapter. The Flood Insurance Study is on file at Borough Hall, 60 Main Street, Helmetta, New Jersey.

§ 36-8. Violations and penalties; other remedies.

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 two hundred dollars (\$200.) or imprisoned for not more than ten (10) days, or both, for each violation, and in addition shall pay all costs and expenses involved in the case. Nothing herein contained shall prevent the Borough of Helmetta from taking such other lawful action as is necessary to prevent or remedy any violation.

§ 36-9. 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 ordinances, easements covenants or deed restrictions conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

§ 36-10. 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.
- C. Deemed neither to limit nor repeal any other powers granted under state statutes.

§ 36-11. Warning and disclaimer of liability.

The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific

and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This chapter does not imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of the Borough of Helmetta 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 III Administration

§ 36-12. Development permit required; application. [Amended 10-19-88]

A development permit shall be obtained before construction or development begins within any area of special flood hazard established in § 36-7. Application for a development permit shall be made on forms furnished by the Construction Official and may include, but not be limited to plans, in duplicate, drawn to scale, showing the nature, location, dimensions and elevations of the area in question, existing or proposed structures, fill, storage of materials, drainage facilities and the location of the foregoing. Specifically, the following information is required:

- A. The elevation, in relation to mean sea level, of the lowest floor, including basement, of all structures.
- B. The elevation, in relation to mean sea level, to which any structure has been floodproofed.
- C. Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in § 36-18B.
- D. A description of the extent to which any watercourse will be altered or relocated as a result of the proposed development.

§ 36-13. Construction Code Official designated.

The Construction Code Official is hereby appointed to administer and implement this chapter by granting or denying development permit applications in accordance with its provisions.

**§ 36-14. Duties and responsibilities of Construction Code Official.
[Amended 10-19-88]**

The duties of the Construction Code Official shall include, but not be limited to:

A. Permit review.

- (1) To review all development permits to determine that the permit requirements of this chapter have been satisfied.
- (2) To 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) To review all development permits in the coastal high-hazard area of the area of special flood hazard to determine if the proposed development alters sand dunes so as to increase potential flood damage.
- (4) To review all development permits to determine if the proposed development is located in the floodway and assure that the encroachment provisions of § 36-19A are met.
- (5) To review plans for walls to be used to enclose space below the base flood level in accordance with the provisions herein.

- B. Use of other base flood and floodway data.** When base flood elevation data has not been provided in accordance with § 36-7, Basis for establishing areas of special flood hazard, the Construction Code Official 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 § 36-18A, Specific standards, Residential construction and § 36-18B, Specific standards, Nonresidential construction.

C. Information to be obtained and maintained.

- (1) To 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.
- (2) For all new substantially improved floodproofed structures:
 - (a) To verify and record the actual elevation, in relation to mean sea level; and
 - (b) To maintain the floodproofing certifications required in § 36-12C.
- (3) In coastal high-hazard areas, certification shall be obtained from a registered professional engineer or architect that the provisions of this chapter are met.
- (4) To maintain for public inspection all records pertaining to the provisions of this chapter.

D. Alteration of watercourse.

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

E. Interpretation of FIRM boundaries. To make interpretation where needed, as to the exact location of the boundaries of the areas of 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 §§ 36-15 and 36-16.

§ 36-15. Board of Appeals.

- A. The Mayor and Council shall hear and decide appeals and requests for variances from the requirements of this chapter.
- B. The Mayor and Council shall hear and decide appeals when it is alleged that there is an error in any requirement, decision or determination made by the Construction Code Official in the enforcement or administration of this chapter.
- C. Those aggrieved by the decision of the Mayor and Council, or any taxpayer, may appeal such decision to the New Jersey Superior Court, as provided in New Jersey Statutes and New Jersey Rules of Court.
- D. In passing upon such applications, the Mayor and Council shall consider all technical evaluations, all relevant factors, standards specified in other sections of this chapter and:
 - (1) The danger that materials may be swept onto other lands to the injury of others.
 - (2) The danger to life and property due to flooding or erosion damage.
 - (3) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner.
 - (4) The importance of the services provided by the proposed facility to the community.
 - (5) The necessity to the facility of a waterfront location, where applicable.
 - (6) The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage.

- (7) The compatibility of the proposed use with existing and anticipated development.
 - (8) The relationship of the proposed use to the Comprehensive Plan and floodplain management program of that area.
 - (9) The safety of access to the property in times of flood for ordinary and emergency vehicles.
 - (10) The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site.
 - (11) The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities, such as sewer, gas, electrical and water systems and streets and bridges.
- E. Upon consideration of the factors of § 36-15D and the purposes of this chapter, the Mayor and Council may attach such conditions to the granting of variances as it deems necessary to further the purposes of this chapter.
- F. The Construction Code Official shall maintain the records of all appeal actions, including technical information, and report any variances to the Federal Insurance Administration upon request.

§ 36-16. Conditions for variances.

- A. Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half ($\frac{1}{2}$) acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, provided that Subsections D(1) through D(11) of § 36-15 have been fully considered. As the lot size increases beyond the one-half ($\frac{1}{2}$) acre, the technical justification required for issuing the variance increases.
- B. Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of

Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this section.

- C. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
- D. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
- E. Variances shall only be issued upon:
 - (1) A showing of good and sufficient cause.
 - (2) A determination that failure to grant the variance would result in exceptional hardship to the applicant.
 - (3) 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 § 36-15D or conflict with existing local laws or ordinances.
- F. 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.

ARTICLE IV
Provisions for Flood Hazard Reduction
[Amended 10-19-88]

§ 36-17. General standards.

In all areas of special flood hazard, 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 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.
- (4) Electrical, heating, ventilation, plumbing and air-conditioning equipment and other service facilities shall be designed and/or located 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.
- (4) Base flood elevation data shall be provided for subdivision proposals and other proposed developments which contain at least fifty (50) lots or five (5) acres, whichever is less.

E. Enclosure openings. 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:

- (1) A minimum of two (2) openings having a total net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding shall be provided.
- (2) The bottom of all openings shall be no higher than one (1) foot above grade.
- (3) Openings may be equipped with screens, louvers or other coverings or devices, provided that they permit the automatic entry and exit of floodwaters.

§ 36-18. Specific standards.

In all areas of special flood hazard where base flood elevation data have been provided as set forth in § 36-7, Basis for establishing the areas of special flood hazard, or in § 36-14B, Use of other base flood and floodway data, the following standards are required:

- A. Residential construction. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to or above base flood elevation.
- B. Nonresidential construction. 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:
- (1) Be floodproofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water;
 - (2) Have structural components capable of resisting hydrostatic and hydrodynamic loads with effects of buoyancy; and
 - (3) 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 § 36-14C(2).
- C. Manufactured homes.
- (1) Manufactured homes shall be anchored in accordance with § 36-17A(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.

§ 36-19. Floodways.

Located within areas of special flood hazard, established in § 36-7, are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles and erosion potential, the following provisions apply:

- A. Prohibited are 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 § 36-19A is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of this Article.
- 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 existing and anticipated development, shall not increase the water surface elevation of the base flood more than two-tenths (0.2) of a foot at any point.