



BOROUGH OF HIGHLANDS  
COUNTY OF MONMOUTH

## ORDINANCE 0-18-012

**An Ordinance amending Chapter 21 of the Borough Code concerning revisions to the Floodplain Ordinance of the Borough of Highlands.**

**BE IT ORDAINED** by the Mayor and Borough Council of the Borough of Highlands, County of Monmouth and State of New Jersey as follows:

**WHEREAS**, the Federal Emergency Management Agency ("FEMA") and the New Jersey Department of Environmental Protection ("DEP") have determined **that** updates to the Borough's Flood Damage Prevention Ordinance are necessary to meet recent changes to federal and state requirements, to continue participation in the National Flood Insurance Program, and to adopt updated Flood Insurance Rate Maps; and

**WHEREAS**, the Governing Body has determined that it is in the best interests of the residents of the Borough to amend Chapter 21 of the Borough Code to provide for the within changes; and

**NOW, THEREFORE, BE IT ORDAINED**, by the Governing Body of the Borough of Highlands, the County of Monmouth, in the State of New Jersey, as follows:

### SECTION I.

The following Sections of Chapter 21, Article XXIV, Flood Damage Prevention, are hereby amended to provide as follows: (All additions are shown in **bold italics with underlines**. The deletions are shown as ~~strikeovers in bold italics~~.)

### PART 7 FLOOD DAMAGE PREVENTION

#### Article XXIV Flood Damage Prevention

##### 21-109 SHORT TITLE.

This section shall be known and may be cited as the "Floodplain Ordinance of the Borough of Highlands."

##### 21-110 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 Mayor and Council of the Borough of Highlands, of Monmouth County, New Jersey does ordain as follows.

**21-111 FINDINGS OF FACT AND STATEMENT OF PURPOSE.**

A. The flood hazard areas of the Borough of Highlands 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, ~~cause~~ causes damage in other areas. Uses that are inadequately ~~flood-proofed~~ floodproofed, elevated or otherwise protected from flood damage also contribute to the flood loss.

It is the purpose of this Article 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:

1. To protect human life and health;
2. To minimize expenditure of public money for costly flood control projects;
3. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
4. To minimize prolonged business interruptions;
5. 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;
6. To help maintain a stable tax base by providing for the ~~second~~ sound use and development of areas of special flood hazard so as to minimize future flood blight areas;
7. To ensure that potential buyers are notified that property is in an area of special flood hazard; and
8. To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

**21-112 METHOD METHODS OF REDUCING FLOOD LOSSES.**

In order to accomplish its purposes, this Article ordinance 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 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 floodwaters flood waters or which may increase flood hazards in other areas.

**21-113 DEFINITIONS.**

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

~~ADVISORY BASE FLOOD ELEVATION (ABFE) — The elevation shown on a community's Advisory Flood Hazard Map that indicates the advisory stillwater elevation plus wave effect (ABFE = SWEL + wave effect) resulting from a flood that has a one (1%) percent or greater chance of being equaled or exceeded in any given year.~~

~~ADVISORY FLOOD HAZARD AREA (AFHA) — The land in the floodplain within a community subject to flooding from the one (1%) percent annual chance event depicted on the Advisory Flood Hazard Map.~~

~~ADVISORY FLOOD HAZARD MAP — The official map on which the Federal Emergency Management Administration has delineated the areas of advisory flood hazards applicable to the community.~~

AO ZONE- Areas subject to inundation by 1-percent-annual-chance shallow flooding (usually sheet flow on sloping terrain) where average depths are between one and three feet.

AH ZONE- Areas subject to inundation by 1-percent-annual-chance shallow flooding (usually areas of ponding) where average depths are between one and three feet. Base Flood Elevations (BFEs) derived from detailed hydraulic analyses are shown in this zone.

APPEAL — A request for a review of the Building Official's interpretation of any provision of this Article ordinance or a request for a variance.

AREA OF SHALLOW FLOODING — A designated AO, AH, or VO zone on a community's Digital Flood Insurance Rate Map (DFIRM) with a one (1%) percent annual or greater chance of flooding to an average depth of one (1) to three (3) 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~~ Land in the floodplain within a community subject to a one (1%) percent or greater chance of flooding in any given year. It is shown on the FIRM as Zone V, VE, V1-30, A, AO, A1-A30, AE, A99, or AH.

~~AREA OF SPECIAL FLOOD RELATED EROSION HAZARD~~ — ~~The land within a community which is most likely to be subject to severe flood related erosion losses. After a detailed evaluation of the special flood related erosion hazard area will be designated a Zone E on the Flood Insurance Rate Map.~~

**BASE FLOOD** — ~~The~~ A flood having a one (1%) percent chance of being equaled or exceeded in any given year.

**BASE FLOOD ELEVATION (BFE)** – The flood elevation shown on a published Flood Insurance Study (FIS) including the Flood Insurance Rate Map (FIRM). For zones AE, AH, AO, and A1-30 the elevation represents the water surface elevation resulting from a flood that has a 1-percent or greater chance of being equaled or exceeded in any given year. For zones VE and V1-30 the elevation represents the stillwater elevation (SWEL) plus wave effect (BFE = SWEL + wave effect) resulting from a flood that has a 1-percent or greater 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 A ZONE** – The portion of the Special Flood Hazard Area (SFHA) starting from a Velocity (V) Zone and extending up to the landward Limit of the Moderate Wave Action delineation. Where no V Zone is mapped the Coastal A Zone is the portion between the open coast and the landward Limit of the Moderate Wave Action delineation. Coastal A Zones may be subject to wave effects, velocity flows, erosion, scour, or a combination of these forces. Construction and development in Coastal A Zones is to be regulated the same as V Zones/Coastal High Hazard Areas.

**COASTAL HIGH HAZARD AREA** — An area of special flood hazard extending from offshore to the inland limit of a primary frontal dune along an open coast and any other area subject to high velocity wave action from storms or seismic sources.

**CUMULATIVE SUBSTANTIAL IMPROVEMENT** — Any reconstruction, rehabilitation, addition, or other improvement of a structure that equals or exceeds 50 percent of the market value of the structure at the time of the improvement or repair when counted cumulatively for 10 years.

**DEVELOPMENT** — Any ~~manmade~~ man made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling,

grading, paving, excavation or drilling operations or storage of equipment or materials located within the area of special flood hazard.

**DIGITAL FLOOD INSURANCE RATE MAP (DFIRM)** — 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.

**ELEVATED BUILDING** — A ~~nonbasement~~ non-basement building (i) built, in the case of a building in a ~~coastal high hazard area~~, 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 or Coastal A Zone, to have the bottom of the lowest horizontal structural member of the elevated floor elevated above the ground-level base flood elevation plus freeboard by means of piling, 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 up to the magnitude of the base flood. In an area Area of special flood hazard 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~~ flood waters. In areas Areas of ~~coastal high hazard~~ Coastal High Hazard and Coastal A Zones "elevated building buildings" also includes a building otherwise meeting the definition of "elevated building" even though the lower area is enclosed by means of breakaway walls.

**EROSION** — The process of the gradual wearing away of landmasses land masses.

**EXISTING 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 before the effective date of the floodplain management regulations adopted by a community.

**FLOOD or FLOODING** — A general and temporary condition of partial or complete inundation of normally dry land areas from:

1. The overflow of inland or tidal waters and/or
2. 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 hazards and the risk premium zones applicable to the community.

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

**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 — Land, and the space above that land, which lies within the inner portion of the flood hazard area, and which is mathematically determined to be required to carry and discharge floodwaters resulting from the 100-year flood under certain conditions. The floodway always includes the channel and often includes land adjacent to the channel. The floodway is normally characterized by faster and deeper flows than the flood fringe, which is the portion of the flood hazard area outside the floodway. The "floodway" shall be delineated by the Department of Environmental Protection and Energy at N.J.A.C. 7:13-3.2.~~

FLOODPROOFING — Any combination of structural and nonstructural 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.

FREEBOARD — A factor of safety usually expressed in feet above a flood level for purposes of flood plain management. "Freeboard" tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood conditions, such as wave action, bridge openings, and the hydrological effect of urbanization of the watershed.

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

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

LIMIT of OF MODERATE WAVE ACTION (LiMWA) — Inland limit of the area affected by waves greater than 1.5 feet during the ~~base flood~~ Base Flood. Base flood Flood

conditions between the ~~VE~~ V Zone and the LiMWA will be similar to, but less severe than those in the ~~VE~~ V Zone.

**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 non-elevation design requirements of 44 CFR Section 60.3.

**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 attached to the required utilities. The term "manufactured home" does not include a "recreational vehicle."

**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.

**MLUL** — The Municipal Land Use Law as set forth in N.J.S.A. 40:55D-1 et seq.

**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.

**PRIMARY FRONTAL DUNE** — A continuous or nearly continuous mound or ridge of sand with relatively steep seaward and landward slopes immediately landward and adjacent to the beach and subject to erosion and overtopping from high tides and waves from coastal storms. The inland limit of the primary frontal dune occurs at the point where there is a distinct change from the relatively steep slope to a relatively mild slope.

**RECREATIONAL VEHICLE** — A vehicle which is (i) [i] built on a single chassis; (ii) [ii] four hundred (400) square feet or less when measured at the longest horizontal projections; (iii) [iii] designed to be self-propelled or permanently towable by a light duty truck; and (iv) [iv] designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel or seasonal use.

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

**START OF CONSTRUCTION** — (For other than new construction or substantial improvement 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 ~~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~~ pilings, 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 as 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** — A walled and roofed building, a manufactured home, or a gas or liquid storage tank that is principally above ground.

**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 fifty (50%) percent of the market value of the structure before the damage occurred. Substantial Damage also means flood-related damages sustained by a structure on two or more separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds 25 percent of the market value of the structure before the damages occurred.

**SUBSTANTIAL IMPROVEMENT** — Any reconstruction, rehabilitation, addition, or other improvement of a structure, during a 10-year period the cost of which equals or exceeds fifty (50%) percent of the market value of the structure before the "start of construction" of the improvement. The Substantial improvement also means "cumulative substantial improvement." This term includes structures which have incurred "substantial damage," regardless of the actual repair work performed or "repetitive loss". The term does not, however, include either:

1. (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 officer and which are the minimum necessary to assure safe living conditions; or
2. (2) Any alteration of a "historic structure," provided that the alteration will not preclude the structure's continued designation as a "historic structure,"

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

**VIOLATION** — The failure of a structure or other development to be fully compliant with this ordinance. A new or substantially improved structure or other development without the elevation certificate, other certifications, or other

evidence of compliance required in 44 CFR §60.3(b)(5), (c)(4), (c)(10), (e)(2), (e)(4), or (e)(5) is presumed to be in violation until such time as that documentation is provided.

#### 21-114 APPLICABILITY.

This Article ordinance shall apply to all areas of special flood hazard hazards within the jurisdiction of the Borough of Highlands, Monmouth County, New Jersey.

#### 21-115 BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD.

The areas of special flood hazard for the Borough of Highlands, Community No. 345297, are identified and defined on the following documents prepared by the Federal Emergency Management Agency:

A. 1. A scientific and engineering report "Flood Insurance Study, Monmouth County, New Jersey (All Jurisdictions)" dated ~~September 25, 2009~~ June 20, 2018.

~~1. A scientific and engineering report "Flood Insurance Study, Monmouth County, New Jersey (All Jurisdictions)" dated September 25, 2009.~~

2. Flood Insurance Rate Map for Monmouth County, New Jersey (All Jurisdictions) as shown on Index and panel numbers panels 34025C0067F, 34025C0086F, 34025C0088F 34025C0067G, 34025C0069F, 34025C0086G, and 34025C0088G; whose effective date is ~~September 25, 2009~~ June 20, 2018.

~~3. The most current Advisory Base Flood Elevation and Advisory Flood Hazard Maps. These documents shall take precedence over previous panels and FIS in construction and development regulations only. Where the Special Flood Hazard Area (SFHA) and the Advisory Flood Hazard Area (AFHA) maps conflict or overlap, whichever imposes the more stringent requirement shall prevail.~~

The above documents are hereby adopted and declared to be a part of this Article ordinance. The Flood Insurance Study and maps are on file at ~~171 Bay Avenue~~ 42 Shore Drive, Highlands, New Jersey 00732-1405.

#### 21-116 ABROGATION AND GREATER RESTRICTIONS.

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

#### 21-117 PENALTIES FOR NONCOMPLIANCE.

No structure or land shall hereafter be constructed, re-located to, extended, converted, or altered without full compliance with the terms of this Article ordinance and other applicable regulations. Violation of the provisions of this Article ordinance 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 Article ordinance or fails to comply with any of its requirements shall, upon conviction thereof, be fined not more than one thousand (\$1,000.00) dollars or imprisoned for not more than ~~one hundred eighty (180)~~ 90 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 Highlands from taking such other lawful action as is necessary to prevent or remedy any violation ~~involved in the case. Nothing herein contained shall prevent the Borough of Highlands from taking such other lawful action as is necessary to prevent or remedy any violation.~~

#### 21-118 INTERPRETATION.

In the interpretation and application of this Article ordinance 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.

#### 21-119 WARNING AND DISCLAIMER OF LIABILITY.

The degree of flood protection required by this Article ordinance 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 Article ordinance does not imply that land outside the areas area of special flood hazard hazards or uses permitted within such areas will be free from flooding or flood damages.

This Article ordinance shall not create liability on the part of the Borough of Highlands, any officer or employee thereof or the Federal Insurance Administration, for any flood damages that result from reliance on this Article ordinance or any administrative decision lawfully made thereunder.

#### 21-120 ESTABLISHMENT OF DEVELOPMENT PERMIT.

A ~~development permit~~ Development Permit shall be obtained before construction or development begins, including placement of manufactured homes, within any area of special flood hazard established in Section 21-115. Application for a ~~development permit~~ Development Permit shall be made on forms furnished by the Building 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:

**Specifically, the following information is required:**

- A. Elevation, in relation to mean sea level of the lowest floor (including basement) of all structures;
- B. 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 subsection 21-125.2; and
- D. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

#### **21-121 DESIGNATION OF THE LOCAL ADMINISTRATOR.**

The Governing Body shall, by resolution, appoint the Building Official or other qualified individual to administer and implement this Article ordinance by granting or denying development permit applications in accordance with its provisions.

#### **21-122 DUTIES AND RESPONSIBILITIES OF THE ADMINISTRATOR.**

~~Duties of the Building Official or other qualified individual, appointed pursuant to Section 21-121 hereof, shall include, but not be limited to: subsections 21-122.1 through 21-122.5.~~

##### **21-122.1 Permit Review.**

A. Review all development permits to determine that the permit requirements of this Article ordinance have been satisfied.

B. Review all development permits to determine that all necessary permits have been obtained from those Federal, State or local governmental agencies from which prior approval is required.

C. Review all development permits to determine if the proposed development is located in the floodway.

D. Review all development permits in the coastal high hazard and Coastal A Zone area ~~of the area of special flood hazard~~ to determine if the proposed development alters sand dunes or other natural coastal protections so as to increase potential flood damage.

E. Review plans for walls to be used to enclose space below the base flood level in accordance with ~~subsection 21-125.4B,4~~ section 21-126.2D.

##### **21-122.2 Use of Other Base Flood and Floodway Data.**

When base flood elevation and floodway data has not been provided in accordance with Section 21-115, ~~Basis for Establishing the Areas of Special Flood Hazard~~ BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD, the Building 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 subsections 21-125.1, ~~Specific Standards~~ SPECIFIC STANDARDS, Residential Construction, and 21-125.2, ~~Specific Standards~~, SPECIFIC STANDARDS, Nonresidential Construction.

**21-122.3 Information to ~~Be~~ be Obtained and Maintained.**

A. 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.

B. For all new or substantially improved floodproofed structures;

1. ~~Verify~~ verify and record the actual elevation (in relation to mean sea level); and
2. ~~Maintain~~ maintain the floodproofing certifications required in Section 21-120C.

C. In coastal high hazard and Coastal A Zone areas, certification shall be obtained from a registered professional engineer or architect that the provisions of subsections ~~21-125.4A~~ 21-126.2A and ~~21-125.4B, 2, a, and b.~~ 21-126.2B 1 and 2 are met.

D. Maintain for public inspection all records pertaining to the provisions of this Article.

**21-122.4 Alteration of Watercourses.**

A. Notify adjacent communities and the New Jersey Department of Environmental Protection, ~~Dam Safety and~~ Bureau of Flood Control section and the Land Use Regulation Program prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.

B. Require that maintenance is provided within the altered or relocated portion of said watercourse so the flood carrying capacity is not diminished.

**21-122.5 Substantial Damage Review.**

**A. After an event resulting in building damages, assess the damage to structures due to flood and non-flood causes.**

**B. Record and maintain the flood and non-flood damage of substantial damage structures and provide a letter of Substantial Damage Determination to the owner and the New Jersey Department of Environmental Protection, Bureau of Flood Control.**

**C. Ensure substantial improvements meet the requirements of sections 21-125.1, SPECIFIC STANDARDS, Residential Construction, 21-125.2, SPECIFIC STANDARDS, Nonresidential Construction and 21-125.3, SPECIFIC STANDARDS, Manufactured Homes.**

**21-122.5 21-122.6 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 field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in Section 21-123.

## 21-123 VARIANCE PROCEDURE.

### 21-123.1 Appeal Board.

A. ~~The Land Use Board shall hear and decide appeals~~ Appeals and requests for variances from the requirements of this Article ~~shall be filed in a manner and before the appropriate Board in a way that is consistent with the MLUL ordinance.~~

B. The appropriate Land Use Board shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the ~~Borough~~ Building Official enforcing in the enforcement or administering administration of this Article.

C. Those aggrieved by the decision of the Land Use Board, or any interested party, may appeal such decision as allowed by the MLUL and the Rules of the Superior Court of New Jersey.

D. In passing upon such applications, the ~~appropriate board~~ Land Use Board shall consider all technical evaluations, all relevant factors, standards specified in other sections of this Article, and:

1. ~~The~~ the danger that materials may be swept onto other lands to the injury of others;
2. ~~The~~ the danger to life and property due to flooding or erosion damage;
3. ~~The~~ the susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
4. ~~The~~ the importance of the services provided by the proposed facility to the community;
5. ~~The~~ the necessity to the facility of a waterfront location where applicable;
6. ~~The~~ the availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
7. ~~The~~ the compatibility of the proposed use with existing and anticipated development;
8. ~~The~~ the relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
9. ~~The~~ the safety of access to the property in times of flood for ordinary and emergency vehicles;
10. ~~The unexpected~~ the expected heights, velocity, duration, rate of rise and sediment transport of the ~~floodwaters~~ flood waters and the effects of wave action, if applicable, expected at the site; and

11. ~~The~~ 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 subsection 21-123.1D. and the purposes of this Article, the ~~appropriate board~~ Land Use Board may attach such conditions to the granting of variances as it deems necessary to further the purposes of this ~~Article~~ ordinance.

F. The ~~appropriate Borough~~ Building Official shall maintain the records of all appeal actions, including technical information, and report any variances to the Federal Insurance Administration upon request.

#### 21-123.2 Conditions for Variances.

A. Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half (~~1/2~~) acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, ~~provided~~ providing items (1-11) in subsection 21-123.1D. have been fully considered. As the lot size increases beyond the one-half (~~1/2~~) acre, the technical justification required for issuing the variance increases.

B. 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.

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; and

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 subsection 21-123.1D., 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.

#### 21-124 GENERAL STANDARDS.

In all areas of special flood hazards, compliance with the applicable requirements of the Uniform Construction Code (N.J.A.C. 5:23) and the following standards, whichever is more restrictive, is required.

**21-124.1 Anchoring.**

A. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.

B. All manufactured homes to be placed or substantially improved 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 state and local anchoring requirements for resisting wind forces.

**21-124.2 Construction Materials and Methods.**

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

B. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.

**21-124.3 Utilities.**

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

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

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

D. ~~Electrical~~ For all new construction and substantial improvements the 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 and located a minimum of one (1) foot above the base flood elevation.

E. All utilities shall be flood proofed at least two (2) feet above the base flood elevation.

**21-124.4 Subdivision Proposals.**

A. All subdivision proposals and other proposed new development shall be consistent with the need to minimize flood damage;

B. All subdivision proposals and other proposed new development shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage;

C. All subdivision proposals and other proposed new development shall have adequate drainage provided to reduce exposure to flood damage; and

D. Base flood elevation data shall be provided for subdivision proposals and other proposed new development which contain at least fifty (50) lots or five (5) acres (whichever is less), and for all proposals in the flood hazard area.

#### 21-124.5 Enclosure Openings.

All new construction and substantial improvements having fully enclosed areas below the lowest floor that are usable solely for the 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 (2) openings in at least two (2) exterior walls of each enclosed area 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. The bottom of all openings shall be no higher than one (1) 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.

#### 21-125 SPECIFIC STANDARDS.

In all areas of special flood hazards where base flood elevation data have been provided as set forth in Section 21-115, ~~Basis for Establishing the Areas of Special Flood Hazard~~ BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD or in subsection 21-122.2, Use of Other Base Flood and Floodway Data, the following standards are required.

##### 21-125.1 Residential Construction.

A. For Coastal A Zone construction see section 21-126 COASTAL HIGH HAZARD AREA AND COASTAL A ZONE.

B. A.— New construction and substantial improvement of any residential structure located in an A or AE zone shall have the bottom of the lowest horizontal structural member floor, including basement together with the attendant utilities (including all electrical, heating, ventilating, air-conditioning and other service equipment) and sanitary facilities, elevated to at or above the base flood elevation or advisory base flood elevation plus one (1) foot or as required by ASCE/SEI 24-14, Table 2-1, whichever is more restrictive.

C. Require within any AO or AH zone on the municipality's DFIRM that all new construction and substantial improvement of any residential structure shall have the lowest floor, including basement together with the attendant utilities and sanitary facilities, elevated above the depth number specified in feet plus one (1) foot, above the highest adjacent grade (at least three (3) 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.

**21-125.2 Nonresidential Construction.**

**In an area of ~~special flood hazard~~ Area of Special Flood Hazard, all new construction and substantial improvement of any commercial, industrial or other nonresidential structure located in an A or AE zone (for Coastal A Zone construction see Section 21-126 COASTAL HIGH HAZARD AREA AND COASTAL A ZONE) shall have the lowest floor, including basement together with the attendant utilities and sanitary facilities as well as all electrical, heating, ventilating, air-conditioning and other service equipment:**

**Either**

**A.**

**1. ~~Either have the lowest floor, including basement together with the attendant utilities and sanitary facilities, elevated at~~ Elevated to or above the base flood elevation or advisory base flood elevation whichever is more restrictive plus one (1) foot or as required by ASCE/SEI 24-14, Table 2-1, whichever is more restrictive; and**

**2. ~~Within any A zone~~ Require within any AO or AH zone on the municipality's FIRM DFIRM that all new construction and substantial improvement of any commercial, industrial or other nonresidential structure shall have the lowest floor, ~~elevated above the highest adjacent grade one (1) foot~~ to elevate above the depth number specified in feet plus one (1) foot, above the highest adjacent grade (at least three (3) feet if no grade number is specified) ~~or at or above the advisory base flood elevation plus one (1) foot whichever is more restrictive.~~ And, require adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures;**

**or**

**B.**

**1. Be floodproofed so that below the base flood level plus one (1) foot or advisory base flood elevation plus one (1) foot as required by ASCE/SEI 24-14, Table 6-1, (whichever is more restrictive,) of the structure is watertight with walls substantially impermeable to the passage of water;**

**2. Have structural components capable of resisting hydrostatic and hydrodynamic loads and 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 subsection 21-122.3B,2.**

**21-125.3 Manufactured Homes.**

**A. Manufactured homes shall be anchored in accordance with subsection 21-124.1A.**

~~B. 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 or advisory base flood elevation plus one (1) foot whichever is more restrictive.~~

- ~~1. Be consistent with the need to minimize flood damage,~~
- ~~2. Be constructed to minimize flood damage,~~
- ~~3. Have adequate drainage provided to reduce exposure to flood damage;~~
- ~~4. Be elevated on a permanent foundation such that the top of the lowest floor is at or above the base flood elevation plus one (1) foot or as required by ASCE/SEI 24-14, Table 2-1, whichever is more restrictive; and,~~
- ~~5. The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and be securely anchored to an adequately anchored foundation system to resist floatation, collapse, and lateral movement.~~

~~21-125.4— Coastal High Hazard Area.~~

~~*SUBSECTION 21-125.4 IS HEREBY REPEALED IN ITS ENTIRETY.*~~

#### ~~21-126 SAND DUNES COASTAL HIGH HAZARD AREA AND COASTAL A ZONE.~~

~~Prohibit manmade alteration of sand dunes within zones VE and V on the community's DFIRM which would increase potential flood damage.~~

~~Coastal high hazard areas (V or VE Zones) and coastal A Zones are located within the areas of special flood hazard established in Section 21-115. These areas have special flood hazards associated with high velocity waters from tidal surges and hurricane wave wash; therefore, the following provisions shall apply:~~

##### ~~21-126.1 Location of Structures.~~

- ~~A. All buildings or structures shall be located landward of the reach of the mean high tide.~~
- ~~B. The placement of manufactured homes shall be prohibited, except in an existing manufactured home park or subdivision.~~

##### ~~21-126.2 Construction Methods.~~

###### ~~A. Elevation.~~

~~All new construction and substantial improvements shall be elevated on piling or columns so that:~~

- ~~1. The bottom of the lowest horizontal structural member of the lowest floor (excluding the piling or columns) is elevated to or above the base~~

- flood elevation plus one (1) foot or as required by ASCE/SEI 24-14, Table 4-1, whichever is more restrictive,
2. All electrical, heating, ventilating, air-conditioning, mechanical equipment and other equipment servicing the building is elevated one (1) foot above the base flood elevation, and
  3. With all space below the lowest floor's supporting member open so as not to impede the flow of water, except for breakaway walls as provided or in section 21-126.2D.

**B. Structural Support.**

1. All new construction and substantial improvements shall be securely anchored on piling or columns.
2. The pile or column foundation and structure attached thereto shall be anchored to resist flotation, collapse or lateral movement due to the effects of wind and water loading values each of which shall have a one percent chance of being equaled or exceeded in any given year (100-year mean recurrence interval).
3. Prohibit the use of fill for structural support of buildings within Zones V1-30, VE, V, and Coastal A on the community's FIRM.

**C. Certification.**

A registered professional engineer or architect shall develop or review the structural design specifications and plans for the construction and shall certify that the design and methods of construction to be used are in accordance with accepted standards of practice for compliance with the provisions of subsections 21-126.2A and 21-126.2B 1 and 2.

**D. Space Below the Lowest Floor.**

1. Any alteration, repair, reconstruction or improvement to a structure started after the enactment of this ordinance shall not enclose the space below the lowest floor unless breakaway walls, open wood lattice-work or insect screening are used as provided for in this section.
2. Breakaway walls, open wood lattice-work or insect screening shall be allowed below the base flood elevation provided that they are intended to collapse under wind and water loads without causing collapse, displacement or other structural damage to the elevated portion of the building or supporting foundation system. Breakaway walls shall be designed for a safe loading resistance of not less than 10 and no more than 20 pounds per square foot. Use of breakaway walls which exceed a design safe loading of 20 pounds per square foot (either by design or when so required by local or State codes) may be permitted only if a registered professional engineer or architect certifies that the designs proposed meet the following conditions.
  - a. breakaway wall collapse shall result from a water load less than that which would occur during the base flood and,
  - b. the elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement or other structural damage due to the effects of wind and water load acting simultaneously on all building components (structural and non-structural). Water loading values used shall be those associated with the base flood. Wind loading values

used shall be those required by applicable State or local building standards.

3. If breakaway walls are utilized, such enclosed space shall be used solely for parking of vehicles, building access, or storage and not for human habitation.
4. Prior to construction, plans for any breakaway wall must be submitted to the Construction Code Official or Building Sub-Code Official for approval.

**21-127 SAND DUNES.**

**Prohibit man-made alteration of sand dunes within Coastal A Zones, VE and V Zones on the community's DFIRM which would increase potential flood damage.**

**SECTION II. SEVERABILITY.**

If any section, subsection, sentence clause or phrase of the ordinance is for any reason held to be unconstitutional or invalid, such decision shall not affect the remaining portions of the ordinance, which shall otherwise remain in full force and effect.

**SECTION III. REPEALER.**

All ordinances or parts of ordinances inconsistent herewith are hereby repealed to the extent of such inconsistency.

**SECTION IV. EFFECTIVE DATE.**

This Ordinance shall take effect on June 20, 2018, to coincide with the Borough's adoption of updated Flood Insurance Rate Maps.

**MOTION** to Introduce O-18-12:

**May 2<sup>nd</sup> 2018**

	INTROUCED	SECONDED	AYE	NAY	ABSTAIN	ABSENT
BRASWELL			X			
BROULLON		X	X			
D'ARRIGO			X			
RYAN			X			
O'NEIL	X		X			

I, Bonnie Brookes, Municipal Clerk of the Borough of Highlands, in the County of Monmouth, State of New Jersey, hereby certify this to be a true copy of the action of the Governing Body, at its Council Meeting, held May 2<sup>nd</sup> 2018. WITNESS my hand this 3<sup>rd</sup> day of May 2018.



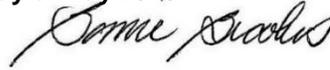
Bonnie Brookes, RMC  
Municipal Clerk

**MOTION** to Adopt O-18-12:

**May 18<sup>th</sup> 2018**

	INTROUCED	SECONDED	AYE	NAY	ABSTAIN	ABSENT
BRASWELL			X			
BROULLON			X			
D'ARRIGO		X	X			
RYAN					X	
O'NEIL	X		X			

I, Bonnie Brookes, Municipal Clerk of the Borough of Highlands, in the County of Monmouth, State of New Jersey, hereby certify this to be a true copy of the action of the Governing Body, at its Council Meeting, held May 18th 2018. WITNESS my hand this 18<sup>th</sup> day of May 2018.



Bonnie Brookes, RMC  
Municipal Clerk