ORDINANCE NO. 07-2023

An Ordinance By The City Council Of The City Of Lambertville Amending The City Of Lambertville Code Of Ordinances To Repeal Chapter 19; To Adopt A New Chapter 19; To Adopt Flood Hazard Maps; To Designate A Floodplain Administrator; And Providing For Severability And An Effective Date.

WHEREAS, the Legislature of the State of New Jersey has, in N.J.S.A. 40:48 et seq and N.J.S.A. 40:55D et seq., conferred upon local governments the authority to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry; and

WHEREAS, the Federal Emergency Management Agency has identified special flood hazard areas within the boundaries of City of Lambertville and such areas may be subject to periodic inundation which may result 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, and

WHEREAS, the City of Lambertville was accepted for participation in the National Flood Insurance Program on April 1, 1981 and the City Council of the City of Lambertville desires to continue to meet the requirements of Title 44 Code of Federal Regulations, Sections 59, 60, 65 and 70 as necessary for such participation; and

WHEREAS, the City of Lambertville is required, pursuant to N.J.A.C. 5:23 et seq., to administer and enforce the State building codes, and such building codes contain certain provisions that apply to the design and construction of buildings and structures in flood hazard areas; and

WHEREAS, the City of Lambertville is required, pursuant to N.J.S.A. 40:49-5, to enforce zoning codes that secure safety from floods and contain certain provisions that apply to the development of lands; and

WHEREAS, the City of Lambertville is required, pursuant to N.J.S.A.58:16A-57, within 12 months after the delineation of any flood hazard area, to adopt rules and regulations concerning the development and use of land in the flood fringe area which at least conform to the standards promulgated by the New Jersey Department of Environmental Protection (NJDEP).

NOW, THEREFORE, BE IT ORDAINED by the City Council of The City of Lambertville that the following floodplain management regulations are hereby adopted.

SECTION 1. RECITALS.

The foregoing whereas clauses are incorporated herein by reference and made a part hereof.

SECTION 2. These regulations specifically repeal and replace the following ordinance(s) and regulation(s): Repeal Chapter 19 of the Ordinances of the City of Lambertville and replace with Chapter 19, titled Flood Damage Prevention Ordinance.

SECTION 101 SCOPE AND ADMINISTRATION

101.1 Title. These regulations, in combination with the flood provisions of the Uniform Construction Code (UCC) N.J.A.C. 5:23 (hereinafter "Uniform Construction Code," consisting of the Building Code, Residential Code, Rehabilitation Subcode, and related codes, and the New Jersey Flood Hazard Area Control Act (hereinafter "FHACA"), N.J.A.C. 7:13, shall be known as the *Floodplain Management Regulations* of The City of Lambertville (hereinafter "these regulations").

101.2 Scope. These regulations, in combination with the flood provisions of the Uniform Construction Code and FHACA shall apply to all proposed development in flood hazard areas established in Section 102 of these regulations.

101.3 Purposes and objectives. The purposes and objectives of these regulations are to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific flood hazard areas through the establishment of comprehensive regulations for management of flood hazard areas, designed to:

(1) Protect human life and health.

(2) Prevent unnecessary disruption of commerce, access, and public service during times of flooding.

(3) Manage the alteration of natural floodplains, stream channels and shorelines;

(4) Manage filling, grading, dredging and other development which may increase flood damage or erosion potential.

(5) Prevent or regulate the construction of flood barriers which will divert floodwater or increase flood hazards.

(6) Contribute to improved construction techniques in the floodplain.

(7) Minimize damage to public and private facilities and utilities.

(8) Help maintain a stable tax base by providing for the sound use and development of flood hazard areas.

(9) Minimize the need for rescue and relief efforts associated with flooding.

(10) Ensure that property owners, occupants, and potential owners are aware of property located in flood hazard areas.

(11) Minimize the need for future expenditure of public funds for flood control projects and response to and recovery from flood events.

(12) Meet the requirements of the National Flood Insurance Program for community participation set forth in Title 44 Code of Federal Regulations, Section 59.22.

101.4 Coordination with Building Codes. Pursuant to the requirement established in N.J.A.C. 5:23, the Uniform Construction Code, that the City of Lambertville administer and enforce the State building codes, the City Council of The City of Lambertville does hereby acknowledge that the Uniform Construction Code contains certain provisions that apply to the design and construction of buildings and structures in flood hazard areas. Therefore, these regulations are

intended to be administered and enforced in conjunction with the Uniform Construction Code.

101.5 Ordinary Building Maintenance and Minor Work. Improvements defined as ordinary building maintenance and minor work projects by the Uniform Construction Code including non-structural replacement-in-kind of windows, doors, cabinets, plumbing fixtures, decks, walls, partitions, new flooring materials, roofing, etc. shall be evaluated by the Floodplain Administrator through the floodplain development permit to ensure compliance with the Substantial Damage and Substantial Improvement Section 103.14 of this ordinance.

101.6 Warning. The degree of flood protection required by these regulations is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur. Flood heights may be increased by man-made or natural causes. Enforcement of these regulations does not imply that land outside the special flood hazard areas, or that uses permitted within such flood hazard areas, will be free from flooding or flood damage.

101.7 Other laws. The provisions of these regulations shall not be deemed to nullify any provisions of local, State, or Federal law.

101.8 Violations and 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 ordinance and other applicable regulations. Violation of the provisions of this ordinance by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a violation under N.J.S.A. 40:49-5. Any person who violates this ordinance or fails to comply with any of its requirements shall be subject to one (1) or more of the following: a fine of not more than $2000, imprisonment for a term not exceeding ninety (90) days or a period of community service not exceeding 90 days.

Each day in which a violation of an ordinance exists shall be considered to be a separate and distinct violation subject to the imposition of a separate penalty for each day of the violation as the Court may determine except that the owner will be afforded the opportunity to cure or abate the condition during a 30-day period and shall be afforded the opportunity for a hearing before the court for an independent determination concerning the violation. Subsequent to the expiration of the 30-day period, a fine of not more than $2000 may be imposed if the court has not determined otherwise, or if upon reinspection of the property, it is determined that the abatement has not been substantially completed.

Any person who is convicted of violating an ordinance within one year of the date of a previous violation of the same ordinance and who was fined for the previous violation, shall be sentenced by a court to an additional fine as a repeat offender. The additional fine imposed by the court upon a person for a repeated offense shall not be less than the minimum or exceed the maximum fine fixed for a violation of the ordinance, but shall be calculated separately from the fine imposed for the violation of the ordinance.

> **101.8.1 Solid Waste Disposal in a Flood Hazard Area.** Any person who has unlawfully disposed of solid waste in a floodway or floodplain who fails to comply with this ordinance or fails to comply with any of its requirements shall upon conviction thereof be fined not more than $2500 or up to a maximum penalty by a fine not exceeding $10,000 under

N.J.S.A. 40:49-5.

101.9 Abrogation and greater restrictions. These regulations supersede any ordinance in effect in flood hazard areas. However, these regulations are not intended to repeal or abrogate any existing ordinances including land development regulations, subdivision regulations, zoning ordinances, stormwater management regulations, or building codes. In the event of a conflict between these regulations and any other ordinance, code, or regulation, the more restrictive shall govern.

SECTION 102 APPLICABILITY

102.1 General. These regulations, in conjunction with the Uniform Construction Code, provide minimum requirements for development located in flood hazard areas, including the subdivision of land and other developments; site improvements and installation of utilities; placement and replacement of manufactured homes; placement of recreational vehicles; new construction and alterations, repair, reconstruction, rehabilitation or additions of existing buildings and structures; substantial improvement of existing buildings and structures, including repair of substantial damage; installation of tanks; temporary structures and temporary or permanent storage; utility and miscellaneous Group U buildings and structures; and certain building work exempt from permit under the Uniform Construction Code; and other buildings and development activities.

102.2 Establishment of Flood Hazard Areas. The City of Lambertville was accepted for participation in the National Flood Insurance Program on April 1, 1981.

The National Flood Insurance Program (NFIP) floodplain management regulations encourage that all Federal, State, and Local regulations that are more stringent than the minimum NFIP standards take precedence in permitting decisions. The FHACA requires that the effective Flood Insurance Rate Map, most recent preliminary FEMA mapping and flood studies, and Department delineations be compared to determine the most restrictive mapping. The FHACA also regulates unstudied flood hazard areas in watersheds measuring 50 acres or greater in size and most riparian zones in New Jersey. Because of these higher standards, the regulated flood hazard area in New Jersey may be more expansive and more restrictive than the FEMA Special Flood Hazard Area. Maps and studies that establish flood hazard areas are on file at the City Hall of the City of Lambertville, located at 18 York Street, Lambertville, NJ 08530.

The following sources identify flood hazard areas in this jurisdiction and must be considered when determining the Best Available Flood Hazard Data Area:

1) **Effective Flood Insurance Study.** Special Flood Hazard Areas (SFHAs) identified by the Federal Emergency Management Agency in a scientific and engineering report entitled Flood Insurance Study Hunterdon County, New Jersey (All Jurisdictions) dated May 2,2012 and the accompanying Flood Insurance Rate Maps (FIRM) identified in Table 102.2(1) whose effective dates are May 2, 2012 and September 25, 2009 are hereby adopted by reference.

Table 102.2(1)

Map Panel #	Effective Date	Suffix	Map Panel #	Effective Date	Suffix
34019C0339	May 2, 2012	G			
34019C0402	May 2, 2012	G			
34019C0406	September 25, 2009	F			

2) **Federal Best Available Information.** The City of Lambertville shall utilize Federal flood information as listed in the table below that provides more detailed hazard information, higher flood elevations, larger flood hazard areas, and results in more restrictive regulations. This information may include but is not limited to preliminary flood elevation guidance from FEMA (such as Advisory Flood Hazard Area Maps, Work Maps or Preliminary FIS and FIRM). Additional Federal Best Available studies issued after the date of this ordinance must also be considered. These studies are listed on FEMA's Map Service Center. This information shall be used for floodplain regulation purposes only.

Table 102.2(2)

Map Panel #	Preliminary Date	Map Panel #	Preliminary Date
None as of the date of this ordinance			

3) **Other Best Available Data.** The City of Lambertville shall utilize high water elevations from flood events, groundwater flooding areas, studies by federal or state agencies, or other information deemed appropriate by the City of Lambertville. Other "best available information" may not be used which results in less restrictive flood elevations, design standards, or smaller flood hazard areas than the sources described in Section 102.2 (1) and (2), above. This information shall be used for floodplain regulation purposes only.

4) **State Regulated Flood Hazard Areas.** For State regulated waters, the NJ Department of Environmental Protection (NJDEP) identifies the flood hazard area as the land, and the space above that land, which lies below the "Flood Hazard Area Control Act Design Flood Elevation", as defined in Section 201, and as described in the New Jersey Flood Hazard Area Control Act at N.J.A.C. 7:13. A FHACA flood hazard area exists along every regulated water that has a drainage area of 50 acres or greater. Such area may extend beyond the boundaries of the Special Flood Hazard Areas (SFHAs) as

identified by FEMA. The following is a list of New Jersey State studied waters in this community under the FHACA, and their respective map identification numbers.

Table 102.2(3 or 4) List of State Studied Waters

Name of Studied Water	File Name	Map Number
Alexauken Creek	L0000154p	05P
Delaware River	L0000158p	01P
Alexauken Creek	L0000159p	05P
Tributary No. 1 to Swan Creek	L0000160p	04P
Swan Creek	L0000161p	03P
Swan Creek	L0000162p	02P
Delaware River	L0000163p	01P
Alexauken Creek	L0000168p	02P
Delaware River	L0000169p	01P
Delaware River, Alexauken Creek	L0000061	3
Delaware River, Swan Creek, Trib #1	L0000062	2
Delaware River, Raritan Canal	L0000063	1
Delaware River	SUPPVIII16	6

102.3 Establishing the Local Design Flood Elevation (LDFE).

The Local Design Flood Elevation (LDFE) is established in the flood hazard areas determined in Section 102.2, above, using the best available flood hazard data sources, and the Flood Hazard Area Control Act minimum Statewide elevation requirements for lowest floors in A, Coastal A, and V zones, ASCE 24 requirements for critical facilities as specified by the building code, plus additional freeboard as specified by this ordinance.

At a minimum, the Local Design Flood Elevation shall be as follows:

1) For a delineated watercourse, the elevation associated with the Best Available Flood Hazard Data Area determined in Section 102.2, above plus two feet of freeboard or as described by N.J.A.C. 7:13.

2) For any undelineated watercourse (where mapping or studies described in 102.2 (1) and (2) above are not available) that has a contributory drainage area of 50 acres or more, the applicants must provide one of the following to determine the Local Design Flood Elevation:

    a. A copy of an unexpired NJDEP Flood Hazard Area Verification plus two feet of freeboard and any additional freeboard as required by ASCE 24; or

    b. A determination of the Flood Hazard Area Design Flood Elevation using Method 5 or Method 6 (as described in N.J.A.C. 7:13) plus two feet of freeboard and any additional freeboard as required by ASCE 24. Any determination using these methods must be sealed and submitted according to Section 105.2-3.

3) AO Zones – For Zone AO areas on the municipality's FIRM (or on preliminary flood elevation guidance from FEMA), the Local Design Flood Elevation is determined from the FIRM panel as the highest adjacent grade plus the depth number specified plus two feet of freeboard . If no depth number is specified, the Local Design Flood Elevation is three (3) feet above the highest adjacent grade.

4) Class IV Critical Facilities - For any proposed development of new and substantially improved Flood Design Class IV Critical Facilities, the Local Design Flood Elevation must be the higher of the 0.2% annual chance (500 year) flood elevation or the Flood Hazard Area Design Flood Elevation with an additional 2 feet of freeboard in accordance with ASCE 24.

5) Class III Critical Facilities - For proposed development of new and substantially improved Flood Design Class III Critical Facilities, the Local Design Flood Elevation must be the higher of the 0.2% annual chance (500 year) flood elevation or the Flood Hazard Area Design Flood Elevation with an additional 2 feet of freeboard in accordance with ASCE 24.

SECTION 103 DUTIES AND POWERS OF THE FLOODPLAIN ADMINISTRATOR

103.1 Floodplain Administrator Designation. The Floodplain Administrator is designated as the Floodplain Administrator. The Floodplain Administrator shall have the authority to delegate performance of certain duties to other employees.

103.2 General. The Floodplain Administrator is authorized and directed to administer the provisions of these regulations. The Floodplain Administrator shall have the authority to render interpretations of these regulations consistent with the intent and purpose of these regulations and to establish policies and procedures in order to clarify the application of its provisions. Such interpretations, policies and procedures shall be consistent with the intent and purpose of these regulations and the flood provisions of the building code and shall not have the effect of waiving specific requirements without the granting of a variance pursuant to Section 107 of these regulations.

103.3 Coordination. The Floodplain Administrator shall coordinate with the Construction Official to administer and enforce the flood provisions of the Uniform Construction Code.

103.4 Duties. The duties of the Floodplain Administrator shall include but are not limited to:

(1) Review all permit applications to determine whether proposed development is located in flood hazard areas established in Section 102 of these regulations.

(2) Require development in flood hazard areas to be reasonably safe from flooding and to be designed and constructed with methods, practices and materials that minimize flood damage.

(3) Interpret flood hazard area boundaries and provide available flood elevation and flood hazard information.

(4) Determine whether additional flood hazard data shall be obtained or developed.

(5) Review required certifications and documentation specified by these regulations and the building code to determine that such certifications and documentations are complete.

(6) Establish, in coordination with the Construction Official, written procedures for administering and documenting determinations of substantial improvement and substantial damage made pursuant to Section 103.14 of these regulations.

(7) Coordinate with the Construction Official and others to identify and investigate damaged buildings located in flood hazard areas and inform owners of the requirement to obtain permits for repairs.

(8) Review requests submitted to the Construction Official seeking approval to modify the strict application of the flood load and flood resistant construction requirements of the Uniform Construction code to determine whether such requests require consideration as a variance pursuant to Section 107 of these regulations.

(9) Require applicants who submit hydrologic and hydraulic engineering analyses to support permit applications to submit to FEMA the data and information necessary to maintain the Flood Insurance Rate Maps when the analyses propose to change base

flood elevations, flood hazard area boundaries, or floodway designations; such submissions shall be made within 6 months of such data becoming available.

(10) Require applicants who propose alteration of a watercourse to notify adjacent jurisdictions and the NJDEP Bureau of Flood Engineering, and to submit copies of such notifications to the Federal Emergency Management Agency (FEMA).

(11) Inspect development in accordance with Section 106 of these regulations and inspect flood hazard areas to determine if development is undertaken without issuance of permits.

(12) Prepare comments and recommendations for consideration when applicants seek variances in accordance with Section 107 of these regulations.

(13) Cite violations in accordance with Section 108 of these regulations.

(14) Notify the Federal Emergency Management Agency when the corporate boundaries of The City of Lambertville have been modified.

(15) Permit Ordinary Maintenance and Minor Work in the regulated areas discussed in Section 102.2.

103.5 Use of changed technical data. The Floodplain Administrator and the applicant shall not use changed flood hazard area boundaries or base flood elevations for proposed buildings or developments unless the Floodplain Administrator or applicant has applied for a Conditional Letter of Map Revision (CLOMR) to the Flood Insurance Rate Map (FIRM) revision and has received the approval of the Federal Emergency Management Agency. A revision of the effective FIRM does not remove the related feature(s) on a flood hazard area delineation that has been promulgated by the NJDEP. A separate application must be made to the State pursuant to N.J.A.C. 7:13 for revision of a flood hazard design flood elevation, flood hazard area limit, floodway limit, and/or another related feature.

103.6 Other permits. It shall be the responsibility of the Floodplain Administrator to assure that approval of a proposed development shall not be given until proof that necessary permits have been granted by Federal or State agencies having jurisdiction over such development, including Section 404 of the Clean Water Act. In the event of conflicting permit requirements, the Floodplain Administrator must ensure that the most restrictive floodplain management standards are reflected in permit approvals.

103.7 Determination of Local Design Flood Elevations. If design flood elevations are not specified, the Floodplain Administrator is authorized to require the applicant to:

(1) Obtain, review, and reasonably utilize data available from a Federal, State, or other source, or

(2) Determine the design flood elevation in accordance with accepted hydrologic and hydraulic engineering techniques. Such analyses shall be performed and sealed by a licensed professional engineer. Studies, analyses, and computations shall be submitted in sufficient detail to allow review and approval by the Floodplain Administrator. The accuracy of data submitted for such determination shall be the responsibility of the applicant.

It shall be the responsibility of the Floodplain Administrator to verify that the applicant's

proposed Best Available Flood Hazard Data Area and the Local Design Flood Elevation in any development permit accurately applies the best available flood hazard data and methodologies for determining flood hazard areas and design elevations described in 102.2 and 102.3 respectively. This information shall be provided to the Construction Official and documented according to Section103.15.

103.8 Requirement to submit new technical data. Base Flood Elevations may increase or decrease resulting from natural changes (e.g., erosion, accretion, channel migration, subsidence, uplift) or man-made physical changes (e.g., dredging, filling, excavation) affecting flooding conditions. As soon as practicable, but not later than six months after the date of a man-made change or when information about a natural change becomes available, the Floodplain Administrator shall notify the Federal Insurance Administrator of the changes by submitting technical or scientific data in accordance with Title 44 Code of Federal Regulations Section 65.3. Such a submission is necessary so that upon confirmation of those physical changes affecting flooding conditions, risk premium rates and floodplain management requirements will be based upon current data.

103.9 Activities in riverine flood hazard areas. In riverine flood hazard areas where design flood elevations are specified but floodways have not been designated, the Floodplain Administrator shall not permit any new construction, substantial improvement or other development, including the placement of fill, unless the applicant submits an engineering analysis prepared by a licensed professional engineer that demonstrates that the cumulative effect of the proposed development, when combined with all other existing and anticipated flood hazard area encroachment, will not increase the design flood elevation more than 0.2 feet at any point within the community.

103.10 Floodway encroachment. Prior to issuing a permit for any floodway encroachment, including fill, new construction, substantial improvements and other development or land- disturbing-activity, the Floodplain Administrator shall require submission of a certification prepared by a licensed professional engineer, along with supporting technical data, that demonstrates that such development will not cause any increase in the base flood level.

> **103.10.1 Floodway revisions.** A floodway encroachment that increases the level of the base flood is authorized if the applicant has applied for a Conditional Letter of Map Revision (CLOMR) to the Flood Insurance Rate Map (FIRM) and has received the approval of FEMA.

103.11 Watercourse alteration. Prior to issuing a permit for any alteration or relocation of any watercourse, the Floodplain Administrator shall require the applicant to provide notification of the proposal to the appropriate authorities of all adjacent government jurisdictions, as well as the NJDEP Bureau of Flood Engineering and the Division of Land Resource Protection. A copy of the notification shall be maintained in the permit records and submitted to FEMA.

> **103.11.1 Engineering analysis.** The Floodplain Administrator shall require submission of an engineering analysis prepared by a licensed professional engineer, demonstrating that the flood-carrying capacity of the altered or relocated portion of the watercourse will

be maintained, neither increased nor decreased. Such watercourses shall be maintained in a manner that preserves the channel's flood-carrying capacity.

103.12 Alterations in coastal areas. The excavation or alteration of sand dunes is governed by the New Jersey Coastal Zone Management (CZM) rules, N.J.A.C. 7:7. Prior to issuing a flood damage prevention permit for any alteration of sand dunes in coastal high hazard areas and Coastal A Zones, the Floodplain Administrator shall require that a New Jersey CZM permit be obtained and included in the flood damage prevention permit application. The applicant shall also provide documentation of any engineering analysis, prepared by a licensed professional engineer, that demonstrates that the proposed alteration will not increase the potential for flood damage.

103.13 Development in riparian zones All development in Riparian Zones as described in N.J.A.C. 7:13 is prohibited by this ordinance unless the applicant has received an individual or general permit or has complied with the requirements of a permit by rule or permit by certification from NJDEP Division of Land Resource Protection prior to application for a floodplain development permit and the project is compliant with all other Floodplain Development provisions of this ordinance. The width of the riparian zone can range between 50 and 300 feet and is determined by the attributes of the waterbody and designated in the New Jersey Surface Water Quality Standards N.J.A.C. 7:9B. The portion of the riparian zone located outside of a regulated water is measured landward from the top of bank. Applicants can request a verification of the riparian zone limits or a permit applicability determination to determine State permit requirements under N.J.A.C. 7:13 from the NJDEP Division of Land Resource Protection.

103.14 Substantial improvement and substantial damage determinations. When buildings and structures are damaged due to any cause including but not limited to man-made, structural, electrical, mechanical, or natural hazard events, or are determined to be unsafe as described in N.J.A.C. 5:23; and for applications for building permits to improve buildings and structures, including alterations, movement, repair, additions, rehabilitations, renovations, ordinary maintenance and minor work, substantial improvements, repairs of substantial damage, and any other improvement of or work on such buildings and structures, the Floodplain Administrator, in coordination with the Construction Official, shall:

(1) Estimate the market value, or allow the applicant to obtain a professional appraisal prepared by a qualified independent appraiser of the market value, of the building or structure before the start of construction of the proposed work; in the case of repair, the market value of the building or structure shall be the market value before the damage occurred and before any repairs are made.

(2) Determine and include the costs of all ordinary maintenance and minor work, as discussed in Section 102.2, performed in the floodplain regulated by this ordinance in addition to the costs of those improvements regulated by the Construction Official in substantial damage and substantial improvement calculations.

(3) Compare the cost to perform the improvement, the cost to repair the damaged building to its pre-damaged condition, or the combined costs of improvements and repairs, where applicable, to the market value of the building or structure.

(4) Determine and document whether the proposed work constitutes substantial improvement or repair of substantial damage. This determination requires the

evaluation of previous permits issued for improvements and repairs over the previous year prior to the permit application or substantial damage determination as specified in the definition of substantial improvement. This determination shall also include the evaluation of flood related damages over a 10 year period to determine if the costs of repairs at the times of each flood constitutes a repetitive loss as defined by this ordinance.

(5) Notify the applicant in writing when it is determined that the work constitutes substantial improvement or repair of substantial damage and that compliance with the flood resistant construction requirements of the building code is required and notify the applicant in writing when it is determined that work does not constitute substantial improvement or repair of substantial damage. The Floodplain Administrator shall also provide all letters documenting substantial damage and compliance with flood resistant construction requirements of the building code to the NJDEP Bureau of Flood Engineering.

103.15 Department records. In addition to the requirements of the building code and these regulations, and regardless of any limitation on the period required for retention of public records, the Floodplain Administrator shall maintain and permanently keep and make available for public inspection all records that are necessary for the administration of these regulations and the flood provisions of the Uniform Construction Code, including Flood Insurance Studies, Flood Insurance Rate Maps; documents from FEMA that amend or revise FIRMs; NJDEP delineations, records of issuance of permits and denial of permits; records of ordinary maintenance and minor work, determinations of whether proposed work constitutes substantial improvement or repair of substantial damage; required certifications and documentation specified by the Uniform Construction Code and these regulations including as-built Elevation Certificates; notifications to adjacent communities, FEMA, and the State related to alterations of watercourses; assurance that the flood carrying capacity of altered waterways will be maintained; documentation related to variances, including justification for issuance or denial; and records of enforcement actions taken pursuant to these regulations and the flood resistant provisions of the Uniform Construction Code. The Floodplain Administrator shall also record the required elevation, determination method, and base flood elevation source used to determine the Local Design Flood Elevation in the floodplain development permit.

103.16 Liability. The Floodplain Administrator and any employee charged with the enforcement of these regulations, while acting for the jurisdiction in good faith and without malice in the discharge of the duties required by these regulations or other pertinent law or ordinance, shall not thereby be rendered liable personally and is hereby relieved from personal liability for any damage accruing to persons or property as a result of any act or by reason of an act or omission in the discharge of official duties. Any suit instituted against an officer or employee because of an act performed by that officer or employee in the lawful discharge of duties and under the provisions of these regulations shall be defended by legal representative of the jurisdiction until the final termination of the proceedings. The Floodplain Administrator and any subordinate shall not be liable for cost in any action, suit or proceeding that is instituted in pursuance of the provisions of these regulations.

SECTION 104 PERMITS

104.1 Permits Required. Any person, owner or authorized agent who intends to conduct any

development in a flood hazard area shall first make application to the Floodplain Administrator and shall obtain the required permit. Depending on the nature and extent of proposed development that includes a building or structure, the Floodplain Administrator may determine that a floodplain development permit or approval is required in addition to a building permit.

104.2 Application for permit. The applicant shall file an application in writing on a form furnished by the Floodplain Administrator. Such application shall:

(1) Identify and describe the development to be covered by the permit.

(2) Describe the land on which the proposed development is to be conducted by legal description, street address or similar description that will readily identify and definitively locate the site.

(3) Indicate the use and occupancy for which the proposed development is intended.

(4) Be accompanied by a site plan and construction documents as specified in Section 105 of these regulations, grading and filling plans and other information deemed appropriate by the Floodplain Administrator.

(5) State the valuation of the proposed work, including the valuation of ordinary maintenance and minor work.

(6) Be signed by the applicant or the applicant's authorized agent.

104.3 Validity of permit. The issuance of a permit under these regulations or the Uniform Construction Code shall not be construed to be a permit for, or approval of, any violation of this appendix or any other ordinance of the jurisdiction. The issuance of a permit based on submitted documents and information shall not prevent the Floodplain Administrator from requiring the correction of errors. The Floodplain Administrator is authorized to prevent occupancy or use of a structure or site which is in violation of these regulations or other ordinances of this jurisdiction.

104.4 Expiration. A permit shall become invalid when the proposed development is not commenced within 180 days after its issuance, or when the work authorized is suspended or abandoned for a period of 180 days after the work commences. Extensions shall be requested in writing and justifiable cause demonstrated. The Floodplain Administrator is authorized to grant, in writing, one or more extensions of time, for periods not more than 180 days each.

104.5 Suspension or revocation. The Floodplain Administrator is authorized to suspend or revoke a permit issued under these regulations wherever the permit is issued in error or on the basis of incorrect, inaccurate or incomplete information, or in violation of any ordinance or code of this jurisdiction.

SECTION 105 SITE PLANS AND CONSTRUCTION DOCUMENTS

105.1 Information for development in flood hazard areas. The site plan or construction documents for any development subject to the requirements of these regulations shall be drawn to scale and shall include, as applicable to the proposed development:

(1) Delineation of flood hazard areas, floodway boundaries and flood zone(s), base flood elevation(s), and ground elevations when necessary for review of the proposed development. For buildings that are located in more than one flood hazard area, the

elevation and provisions associated with the most restrictive flood hazard area shall apply.

(2) Where base flood elevations or floodway data are not included on the FIRM or in the Flood Insurance Study, they shall be established in accordance with Section 105.2.

(3) Where the parcel on which the proposed development will take place will have more than 50 lots or is larger than 5 acres and base flood elevations are not included on the FIRM or in the Flood Insurance Study, such elevations shall be established in accordance with Section 105.2(3) of theseregulations.

(4) Location of the proposed activity and proposed structures, and locations of existing buildings and structures; in coastal high hazard areas and Coastal A zones, new buildings shall be located landward of the reach of mean high tide.

(5) Location, extent, amount, and proposed final grades of any filling, grading, or excavation.

(6) Where the placement of fill is proposed, the amount, type, and source of fill material; compaction specifications; a description of the intended purpose of the fill areas; and evidence that the proposed fill areas are the minimum necessary to achieve the intended purpose. The applicant shall provide an engineering certification confirming that the proposal meets the flood storage displacement limitations of N.J.A.C. 7:13.

(7) Extent of any proposed alteration of sand dunes.

(8) Existing and proposed alignment of any proposed alteration of a watercourse.

(9) Floodproofing certifications, Breakaway Wall Certifications, Operations and Maintenance Plans, Warning and Evacuation Plans and other documentation required pursuant to FEMA publications.

The Floodplain Administrator is authorized to waive the submission of site plans, construction documents, and other data that are required by these regulations but that are not required to be prepared by a registered design professional when it is found that the nature of the proposed development is such that the review of such submissions is not necessary to ascertain compliance.

105.2 Information in flood hazard areas without base flood elevations (approximate Zone A). Where flood hazard areas are delineated on the effective or preliminary FIRM and base flood elevation data have not been provided, the applicant shall consult with the Floodplain Administrator to determine whether to:

(1) Use the Approximation Method (Method 5) described in N.J.A.C. 7:13 in conjunction with Appendix 1 of the FHACA to determine the required flood elevation.

(2) Obtain, review, and reasonably utilize data available from a Federal, State or other source when those data are deemed acceptable to the Floodplain Administrator to reasonably reflect flooding conditions.

(3) Determine the base flood elevation in accordance with accepted hydrologic and hydraulic engineering techniques according to Method 6 as described in N.J.A.C. 7:13. Such analyses shall be performed and sealed by a licensed professional engineer.

Studies, analyses, and computations shall be submitted in sufficient detail to allow review and approval by the Floodplain Administrator prior to floodplain development permit issuance. The accuracy of data submitted for such determination shall be the responsibility of

the applicant. Where the data are to be used to support a Letter of Map Change (LOMC) from FEMA, the applicant shall be responsible for satisfying the submittal requirements and pay the processing fees.

105.3 Analyses and certifications by a Licensed Professional Engineer. As applicable to the location and nature of the proposed development activity, and in addition to the requirements of this section, the applicant shall have the following analyses signed and sealed by a licensed professional engineer for submission with the site plan and construction documents:

(1) For development activities proposed to be located in a regulatory floodway, a floodway encroachment analysis that demonstrates that the encroachment of the proposed development will not cause any increase in base flood elevations; where the applicant proposes to undertake development activities that do increase base flood elevations, the applicant shall submit such analysis to FEMA as specified in Section 105.4 of these regulations and shall submit the Conditional Letter of Map Revision, if issued by FEMA, with the site plan and construction documents.

(2) For development activities proposed to be located in a riverine flood hazard area where base flood elevations are included in the FIS or FIRM but floodways have not been designated, hydrologic and hydraulic analyses that demonstrate that the cumulative effect of the proposed development, when combined with all other existing and anticipated flood hazard area encroachments will not increase the base flood elevation more than 0.2 feet at any point within the jurisdiction. This requirement does not apply in isolated flood hazard areas not connected to a riverine flood hazard area or in flood hazard areas identified as Zone AO or Zone AH.

(3) For alteration of a watercourse, an engineering analysis prepared in accordance with standard engineering practices which demonstrates that the flood-carrying capacity of the altered or relocated portion of the watercourse will not be decreased, and certification that the altered watercourse shall be maintained, neither increasing nor decreasing the channel's flood-carrying capacity. The applicant shall submit the analysis to FEMA as specified in Section 105.4 of these regulations. The applicant shall notify the chief executive officer of all affected adjacent jurisdictions, the NJDEP's Bureau of Flood Engineering and the Division of Land Resource Protection; and shall provide documentation of such notifications.

(4) For activities that propose to alter sand dunes in coastal high hazard areas (Zone V) and Coastal A Zones, an engineering analysis that demonstrates that the proposed alteration will not increase the potential for flood damage and documentation of the issuance of a New Jersey Coastal Zone Management permit under N.J.A.C. 7:7.

(5) For analyses performed using Methods 5 and 6 (as described in N.J.A.C. 7:13) in flood hazard zones without base flood elevations (approximate A zones).

105.4 Submission of additional data. When additional hydrologic, hydraulic or other engineering data, studies, and additional analyses are submitted to support an application, the applicant has the right to seek a Letter of Map Change (LOMC) from FEMA to change the base flood elevations, change floodway boundaries, or change boundaries of flood hazard areas shown on FIRMs, and to submit such data to FEMA for such purposes. The analyses shall be prepared by a licensed professional engineer in a format required by FEMA. Submittal requirements and processing fees shall be the responsibility of the applicant.

SECTION 106 INSPECTIONS

106.1 General. Development for which a permit is required shall be subject to inspection. Approval as a result of an inspection shall not be construed to be an approval of a violation of the provisions of these regulations or the building code. Inspections presuming to give authority to violate or cancel the provisions of these regulations or the building code or other ordinances shall not be valid.

106.2 Inspections of development. The Floodplain Administrator shall inspect all development in flood hazard areas authorized by issuance of permits under these regulations. The Floodplain Administrator shall inspect flood hazard areas from time to time to determine if development is undertaken without issuance of a permit.

106.3 Buildings and structures. The Construction Official shall make or cause to be made, inspections for buildings and structures in flood hazard areas authorized by permit in accordance with the Uniform Construction Code, N.J.A.C. 5:23.

1) **Lowest floor elevation**. Upon placement of the lowest floor, including the basement, and prior to further vertical construction, certification of the elevation required in Section 801.2 shall be submitted to the Construction Official on an Elevation Certificate.

2) **Lowest horizontal structural member.** In V zones and Coastal A zones, upon placement of the lowest floor, including the basement, and prior to further vertical construction, certification of the elevation required in Section 801.2 shall be submitted to the Construction Official on an Elevation Certificate.

3) **Installation of attendant utilities (**electrical, heating, ventilating, air-conditioning, and other service equipment) and sanitary facilities elevated as discussed in Section 801.2.

4) **Final inspection.** Prior to the final inspection, certification of the elevation required in Section 801.2 shall be submitted to the Construction Official on an Elevation Certificate.

106.4 Manufactured homes. The Floodplain Administrator shall inspect manufactured homes that are installed or replaced in flood hazard areas to determine compliance with the requirements of these regulations and the conditions of the issued permit. Upon placement of a manufactured home, certification of the elevation of the lowest floor shall be submitted on an Elevation Certificate to the Floodplain Administrator prior to the final inspection.

SECTION 107 VARIANCES

107.1 General. The Zoning Board of Adjustments shall hear and decide requests for variances. The Zoning Board of Adjustments shall base its determination on technical justifications submitted by applicants, the considerations for issuance in Section 107.5, the conditions of issuance set forth in Section 107.6, and the comments and recommendations of the Floodplain Administrator and, as applicable, the Construction Official. The Zoning Board of Adjustments

has the right to attach such conditions to variances as it deems necessary to further the purposes and objectives of these regulations.

107.2 Historic structures. A variance to the substantial improvement requirements of this ordinance is authorized provided that the repair or rehabilitation of a historic structure is completed according to N.J.A.C. 5:23-6.33, Section 1612 of the International Building Code and R322 of the International Residential Code, the repair or rehabilitation will not preclude the structure's continued designation as a historic structure, the structure meets the definition of the historic structure as described by this ordinance, and the variance is the minimum necessary to preserve the historic character and design of the structure.

107.3 Functionally dependent uses. A variance is authorized to be issued for the construction or substantial improvement necessary for the conduct of a functionally dependent use provided the variance is the minimum necessary to allow the construction or substantial improvement, and that all due consideration has been given to use of methods and materials that minimize flood damage during the base flood and create no additional threats to public safety.

107.4 Restrictions in floodways. A variance shall not be issued for any proposed development in a floodway when any increase in flood levels would result during the base flood discharge, as evidenced by the applicable analysis and certification required in Section 105.3(1) of these regulations.

107.5 Considerations. In reviewing requests for variances, all technical evaluations, all relevant factors, all other portions of these regulations, and the following shall be considered:

(1) The danger that materials and debris may be swept onto other lands resulting in further injury or damage.

(2) The danger to life and property due to flooding or erosion damage.

(3) The susceptibility of the proposed development, including contents, to flood damage and the effect of such damage on current and future owners.

(4) The importance of the services provided by the proposed development to the community.

(5) The availability of alternate locations for the proposed development that are not subject to flooding or erosion and the necessity of a waterfront location, where applicable.

(6) The compatibility of the proposed development with existing and anticipated development.

(7) The relationship of the proposed development to the comprehensive plan and floodplain management program for that area.

(8) The safety of access to the property in times of flood for ordinary and emergency vehicles.

(9) The expected heights, velocity, duration, rate of rise and debris and sediment transport of the floodwater and the effects of wave action, where applicable, expected at the site.

(10) 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, streets, and bridges.

107.6 Conditions for issuance. Variances shall only be issued upon:

(1) Submission by the applicant of a showing of good and sufficient cause that the unique characteristics of the size, configuration or topography of the site limit compliance with any provision of these regulations or renders the elevation standards of the building code inappropriate.

(2) A determination that failure to grant the variance would result in exceptional hardship due to the physical characteristics of the land that render the lot undevelopable.

(3) A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, nor create nuisances, cause fraud on or victimization of the public or conflict with existing local laws or ordinances.

(4) A determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

(5) Notification to the applicant in writing over the signature of the Floodplain Administrator that the issuance of a variance to construct a structure below the base flood level will result in increased premium rates for flood insurance up to amounts as high as $25 for
$100 of insurance coverage, and that such construction below the base flood level increases risks to life and property.

SECTION 108 VIOLATIONS

108.1 Violations. Any development in any flood hazard area that is being performed without an issued permit or that is in conflict with an issued permit shall be deemed a violation. A building or structure without the documentation of elevation of the lowest floor, the lowest horizontal structural member if in a V or Coastal A Zone, other required design certifications, or other evidence of compliance required by the building code is presumed to be a violation until such time as that documentation is provided.

108.2 Authority. The Floodplain Administrator is authorized to serve notices of violation or stop work orders to owners of property involved, to the owner's agent, or to the person or persons doing the work for development that is not within the scope of the Uniform Construction Code, but is regulated by these regulations and that is determined to be a violation.

108.3 Unlawful continuance. Any person who shall continue any work after having been served with a notice of violation or a stop work order, except such work as that person is directed to perform to remove or remedy a violation or unsafe condition, shall be subject to penalties as prescribed by N.J.S.A. 40:49-5 as appropriate.

108.4 Review Period to Correct Violations. A 30-day period shall be given to the property owner as an opportunity to cure or abate the condition. The property owner shall also be afforded an opportunity for a hearing before the court for an independent determination concerning the violation. Subsequent to the expiration of the 30-day period, a fine of not more than $2000 may be imposed if a court has not determined otherwise or, upon reinspection of the property, it is determined that the abatement has not been

substantially completed.

SECTION 201 DEFINITIONS

201.1 General. The following words and terms shall, for the purposes of these regulations, have the meanings shown herein. Other terms are defined in the Uniform Construction Code N.J.A.C. 5:23 and terms are defined where used in the International Residential Code and International Building Code (rather than in the definitions section). Where terms are not defined, such terms shall have ordinarily accepted meanings such as the context implies.

201.2 Definitions

30 DAY PERIOD – The period of time prescribed by N.J.S.A. 40:49-5 in which a property owner is afforded the opportunity to correct zoning and solid waste disposal after a notice of violation pertaining to this ordinance has been issued.

100 YEAR FLOOD ELEVATION – Elevation of flooding having a 1% annual chance of being equaled or exceeded in a given year which is also referred to as the Base Flood Elevation.

500 YEAR FLOOD ELEVATION – Elevation of flooding having a 0.2% annual chance of being equaled or exceeded in a given year.

A ZONES – Areas of 'Special Flood Hazard in which the elevation of the surface water resulting from a flood that has a 1% annual chance of equaling or exceeding the Base Flood Elevation (BFE) in any given year shown on the Flood Insurance Rate Map (FIRM) zones A, AE, AH, A1–A30, AR, AR/A, AR/AE, AR/A1– A30, AR/AH, and AR/AO. When used in reference to the development of a structure in this ordinance, A Zones are not inclusive of Coastal A Zones because of the higher building code requirements for Coastal A Zones.

AH ZONES– 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.

AO ZONES – 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.

ACCESSORY STRUCTURE – Accessory structures are also referred to as appurtenant structures. An accessory structure is a structure which is on the same parcel of property as a principal structure and the use of which is incidental to the use of the principal structure. For example, a residential structure may have a detached garage or storage shed for garden tools as accessory structures. Other examples of accessory structures include gazebos, picnic pavilions, boathouses, small pole barns, storage sheds, and similar buildings.

AGRICULTURAL STRUCTURE - A structure used solely for agricultural purposes in which the use is exclusively in connection with the production, harvesting, storage, drying, or raising of agricultural commodities, including the raising of livestock. Communities must require that new construction or substantial improvements of agricultural structures be elevated or floodproofed to or above the Base Flood Elevation (BFE) as any other nonresidential building. Under some

circumstances it may be appropriate to wet-floodproof certain types of agricultural structures when located in wide, expansive floodplains through issuance of a variance. This should only be done for structures used for temporary storage of equipment or crops or temporary shelter for livestock and only in circumstances where it can be demonstrated that agricultural structures can be designed in such a manner that results in minimal damage to the structure and its contents and will create no additional threats to public safety. New construction or substantial improvement of livestock confinement buildings, poultry houses, dairy operations, similar livestock operations and any structure that represents more than a minimal investment must meet the elevation or dry-floodproofing requirements of 44 CFR 60.3(c)(3).

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

ALTERATION OF A WATERCOURSE – A dam, impoundment, channel relocation, change in channel alignment, channelization, or change in cross-sectional area of the channel or the channel capacity, or any other form of modification which may alter, impede, retard or change the direction and/or velocity of the riverine flow of water during conditions of the base flood.

ASCE 7 – The standard for the Minimum Design Loads for Buildings and Other Structures, referenced by the building code and developed and published by the American Society of Civil Engineers, Reston, VA. which includes but is not limited to methodology and equations necessary for determining structural and flood-related design requirements and determining the design requirements for structures that may experience a combination of loads including those from natural hazards. Flood related equations include those for determining erosion, scour, lateral, vertical, hydrostatic, hydrodynamic, buoyancy, breaking wave, and debris impact.

ASCE 24 – The standard for Flood Resistant Design and Construction, referenced by the building code and developed and published by the American Society of Civil Engineers, Reston, VA. References to ASCE 24 shall mean ASCE 24-14 or the most recent version of ASCE 24 adopted in the UCC Code [N.J.A.C. 5:23].

BASE FLOOD ELEVATION (BFE) – 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, as shown on a published Flood Insurance Study (FIS), or preliminary flood elevation guidance from FEMA. May also be referred to as the "100-year flood elevation".

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

BEST AVAILABLE FLOOD HAZARD DATA - The most recent available preliminary flood risk guidance FEMA has provided. The Best Available Flood Hazard Data may be depicted on but not limited to Advisory Flood Hazard Area Maps, Work Maps, or Preliminary FIS and FIRM.

BEST AVAILABLE FLOOD HAZARD DATA AREA- The areal mapped extent associated with

the most recent available preliminary flood risk guidance FEMA has provided. The Best Available Flood Hazard Data may be depicted on but not limited to Advisory Flood Hazard Area Maps, Work Maps, or Preliminary FIS and FIRM.

BEST AVAILABLE FLOOD HAZARD DATA ELEVATION - The most recent available preliminary flood elevation guidance FEMA has provided. The Best Available Flood Hazard Data may be depicted on but not limited to Advisory Flood Hazard Area Maps, Work Maps, or Preliminary FIS and FIRM.

BREAKAWAY WALLS – Any type of wall subject to flooding that is not required to provide structural support to a building or other structure and that is designed and constructed such that, below the Local Design Flood Elevation, it will collapse under specific lateral loads such that (1) it allows the free passage of floodwaters, and (2) it does not damage the structure or supporting foundation system. Certification in the V Zone Certificate of the design, plans, and specifications by a licensed design professional that these walls are in accordance with accepted standards of practice is required as part of the permit application for new and substantially improved V Zone and Coastal A Zone structures. A completed certification must be submitted at permit application.

BUILDING – Per the FHACA, "Building" means a structure enclosed with exterior walls or fire walls, erected and framed of component structural parts, designed for the housing, shelter, enclosure, and support of individuals, animals, or property of any kind. A building may have a temporary or permanent foundation. A building that is intended for regular human occupation and/or residence is considered a habitable building.

CONDITIONAL LETTER OF MAP REVISION - A Conditional Letter of Map Revision (CLOMR) is FEMA's comment on a proposed project that would, upon construction, affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodway, the effective Base Flood Elevations (BFEs), or the Special Flood Hazard Area (SFHA). The letter does not revise an effective NFIP map, it indicates whether the project, if built as proposed, would be recognized by FEMA. FEMA charges a fee for processing a CLOMR to recover the costs associated with the review that is described in the Letter of Map Change (LOMC) process. Building permits cannot be issued based on a CLOMR, because a CLOMR does not change the NFIP map.

CONDITIONAL LETTER OF MAP REVISION - FILL -- A Conditional Letter of Map Revision - Fill (CLOMR-F) is FEMA's comment on a proposed project involving the placement of fill outside of the regulatory floodway that would, upon construction, affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodway, the effective Base Flood Elevations (BFEs), or the Special Flood Hazard Area (SFHA). The letter does not revise an effective NFIP map, it indicates whether the project, if built as proposed, would be recognized by FEMA. FEMA charges a fee for processing a CLOMR to recover the costs associated with the review that is described in the Letter of Map Change (LOMC) process. Building permits cannot be issued based on a CLOMR, because a CLOMR does not change the NFIP map.
CRITICAL BUILDING – Per the FHACA, "Critical Building" means that:

a. It is essential to maintaining continuity of vital government operations and/or supporting emergency response, sheltering, and medical care functions before, during, and after a flood,

such as a hospital, medical clinic, police station, fire station, emergency response center, or public shelter; or

b. It serves large numbers of people who may be unable to leave the facility through their own efforts, thereby hindering or preventing safe evacuation of the building during a flood event, such as a school, college, dormitory, jail or detention facility, day care center, assisted living facility, or nursing home.

DEVELOPMENT – Any manmade change to improved or unimproved real estate, including but not limited to, buildings or other structures, tanks, temporary structures, temporary or permanent storage of materials, mining, dredging, filling, grading, paving, excavations, drilling operations and other land-disturbing activities.

DRY FLOODPROOFING – A combination of measures that results in a non-residential structure, including the attendant utilities and equipment as described in the latest version of ASCE 24, being watertight with all elements substantially impermeable and with structural components having the capacity to resist flood loads.

ELEVATED BUILDING – A building that has no basement and that has its lowest elevated floor raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns. Solid perimeter foundations walls are not an acceptable means of elevating buildings in V and VE Zones.

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

ENCROACHMENT – The placement of fill, excavation, buildings, permanent structures or other development into a flood hazard area which may impede or alter the flow capacity of riverine flood hazard areas.

FEMA PUBLICATIONS – Any publication authored or referenced by FEMA related to building science, building safety, or floodplain management related to the National Flood Insurance Program. Publications shall include but are not limited to technical bulletins, desk references, and American Society of Civil Engineers Standards documents including ASCE 24.

FLOOD OR FLOODING

a. A general and temporary condition of partial or complete inundation of normally dry land areas from:
    1. The overflow of inland or tidal waters.
    2. The unusual and rapid accumulation or runoff of surface waters from any source.
    3. Mudslides (I.e., mudflows) which are proximately caused by flooding as defined in (a) (2) of this definition and are akin to a river or liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.
b. The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical

levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in paragraph (a)(1) of this definition.

FLOOD HAZARD AREA DESIGN FLOOD ELEVATION – Per the FHACA, the peak water surface elevation that will occur in a water during the flood hazard area design flood. This elevation is determined via available flood mapping adopted by the State, flood mapping published by FEMA (including effective flood mapping dated on or after January 31, 1980, or any more recent advisory, preliminary, or pending flood mapping; whichever results in higher flood elevations, wider floodway limits, greater flow rates, or indicates a change from an A zone to a V zone or coastal A zone), approximation, or calculation pursuant to the Flood Hazard Area Control Act Rules at N.J.A.C. 7:13-3.1 – 3.6 and is typically higher than FEMA's base flood elevation. A water that has a drainage area measuring less than 50 acres does not possess, and is not assigned, a flood hazard area design flood elevation.

FLOOD INSURANCE RATE MAP (FIRM) – The official map on which the Federal Emergency Management Agency has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

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

FLOODPLAIN OR FLOOD PRONE AREA – Any land area susceptible to being inundated by water from any source. See "Flood or flooding."

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.

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.

FLOODPROOFING CERTIFICATE – Certification by a licensed design professional that the design and methods of construction for floodproofing a non-residential structure are in accordance with accepted standards of practice to a proposed height above the structure's lowest adjacent grade that meets or exceeds the Local Design Flood Elevation. A completed floodproofing certificate is required at permit application.

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 foot.

FREEBOARD – A factor of safety usually expressed in feet above a flood level for purposes of

floodplain 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 and floodway conditions, such as wave action, bridge openings, and the hydrological effect of urbanization of the watershed.

FUNCTIONALLY DEPENDENT USE – A use that cannot perform its intended purpose unless it is located or carried out in close proximity to water, including only docking facilities, port facilities necessary for the loading or unloading of cargo or passengers, and shipbuilding and ship repair facilities. The term does not include long-term storage or related manufacturing facilities.

HABITABLE BUILDING– Pursuant to the FHACA Rules (N.J.A.C. 7:13), means a building that is intended for regular human occupation and/or residence. Examples of a habitable building include a single-family home, duplex, multi-residence building, or critical building; a commercial building such as a retail store, restaurant, office building, or gymnasium; an accessory structure that is regularly occupied, such as a garage, barn, or workshop; mobile and manufactured homes, and trailers intended for human residence, which are set on a foundation and/or connected to utilities, such as in a mobile home park (not including campers and recreational vehicles); and any other building that is regularly occupied, such as a house of worship, community center, or meeting hall, or animal shelter that includes regular human access and occupation. Examples of a non-habitable building include a bus stop shelter, utility building, storage shed, self-storage unit, construction trailer, or an individual shelter for animals such as a doghouse or outdoor kennel.

HARDSHIP – As related to Section 107 of this ordinance, meaning the exceptional hardship that would result from a failure to grant the requested variance. The City Council of the City of Lambertville requires that the variance be exceptional, unusual, and peculiar to the property involved. Mere economic or financial hardship alone is not exceptional. Inconvenience, aesthetic considerations, physical handicaps, personal preferences, or the disapproval of one's neighbors likewise cannot, as a rule, qualify as an exceptional hardship. All of these problems can be resolved through other means without granting a variance, even if the alternative is more expensive, or requires the property owner to build elsewhere or put the parcel to a different use than originally intended.

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:

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 or a 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.

e. Individually listed on a locally certified inventory or structures locally listed as a contributing building in a listed historic district.

LAWFULLY EXISTING – Per the FHACA, means an existing fill, structure and/or use, which meets all Federal, State, and local laws, and which is not in violation of the FHACA because it was established:

a. Prior to January 31, 1980; or
b. On or after January 31, 1980, in accordance with the requirements of the FHACA as it existed at the time the fill, structure and/or use was established.

Note: Substantially damaged properties and substantially improved properties that have not been elevated are not considered "lawfully existing" for the purposes of the NFIP. This definition is included in this ordinance to clarify the applicability of any more stringent statewide floodplain management standards required under the FHACA.

LETTER OF MAP AMENDMENT - A Letter of Map Amendment (LOMA) is an official amendment, by letter, to an effective National Flood Insurance Program (NFIP) map that is requested through the Letter of Map Change (LOMC) process. A LOMA establishes a property's location in relation to the Special Flood Hazard Area (SFHA). LOMAs are usually issued because a property has been inadvertently mapped as being in the floodplain but is actually on natural high ground above the base flood elevation. Because a LOMA officially amends the effective NFIP map, it is a public record that the community must maintain. Any LOMA should be noted on the community's master flood map and filed by panel number in an accessible location.

LETTER OF MAP CHANGE – The Letter of Map Change (LOMC) process is a service provided by FEMA for a fee that allows the public to request a change in flood zone designation in an Area of Special Flood Hazard on a Flood Insurance Rate Map (FIRM). Conditional Letters of Map Revision, Conditional Letters of Map Revision – Fill, Letters of Map Revision, Letters of Map Revision-Fill, and Letters of Map Amendment are requested through the Letter of Map Change (LOMC) process.

LETTER OF MAP REVISION - A Letter of Map Revision (LOMR) is FEMA's modification to an effective Flood Insurance Rate Map (FIRM). Letter of Map Revisions are generally based on the implementation of physical measures that affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodway, the effective Base Flood Elevations (BFEs), or the Special Flood Hazard Area (SFHA). The LOMR officially revises the Flood Insurance Rate Map (FIRM) and sometimes the Flood Insurance Study (FIS) report, and when appropriate, includes a description of the modifications. The LOMR is generally accompanied by an annotated copy of the affected portions of the FIRM or FIS report. Because a LOMR officially revises the effective NFIP map, it is a public record that the community must maintain. Any LOMR should be noted on the community's master flood map and filed by panel number in an accessible location.

LETTER OF MAP REVISION – FILL -- A Letter of Map Revision Based on Fill (LOMR-F) is FEMA's modification of the Special Flood Hazard Area (SFHA) shown on the Flood Insurance Rate Map (FIRM) based on the placement of fill outside the existing regulatory floodway may be initiated through the Letter of Map Change (LOMC) Process. Because a LOMR-F officially

revises the effective Flood Insurance Rate Map (FIRM) map, it is a public record that the community must maintain. Any LOMR-F should be noted on the community's master flood map and filed by panel number in an accessible location.

LICENSED DESIGN PROFESSIONAL – Licensed design professional shall refer to either a New Jersey Licensed Professional Engineer, licensed by the New Jersey State Board of Professional Engineers and Land Surveyors or a New Jersey Licensed Architect, licensed by the New Jersey State Board of Architects.

LICENSED PROFESSIONAL ENGINEER - A licensed professional engineer shall refer to individuals licensed by the New Jersey State Board of Professional Engineers and Land Surveyors.

LOCAL DESIGN FLOOD ELEVATION (LDFE) – The elevation reflective of the most recent available preliminary flood elevation guidance FEMA has provided as depicted on but not limited to Advisory Flood Hazard Area Maps, Work Maps, or Preliminary FIS and FIRM which is also inclusive of freeboard specified by the New Jersey Flood Hazard Area Control Act and Uniform Construction Codes and any additional freeboard specified in a community's ordinance. In no circumstances shall a project's LDFE be lower than a permit-specified Flood Hazard Area Design Flood Elevation or a valid NJDEP Flood Hazard Area Verification Letter plus the freeboard as required in ASCE 24 and the effective FEMA Base Flood Elevation.

LOWEST ADJACENT GRADE – The lowest point of ground, patio, or sidewalk slab immediately next a structure, except in AO Zones where it is the natural grade elevation.

LOWEST FLOOR – In A Zones, the lowest floor is the top surface of the lowest floor of the lowest enclosed area (including basement). In V Zones and coastal A Zones, the bottom of the lowest horizontal structural member of a building is the lowest floor. 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 these regulations.

MANUFACTURED HOME – A structure that is transportable in one or more sections, eight (8) feet or more in width and greater than four hundred (400) square feet, built on a permanent chassis, designed for use with or without a permanent foundation when attached to the required utilities, and constructed to the Federal Manufactured Home Construction and Safety Standards and rules and regulations promulgated by the U.S. Department of Housing and Urban Development. The term also includes mobile homes, park trailers, travel trailers and similar transportable structures that are placed on a site for 180 consecutive days or longer.

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

MARKET VALUE – The price at which a property will change hands between a willing buyer and a willing seller, neither party being under compulsion to buy or sell and both having reasonable knowledge of relevant facts. As used in these regulations, the term refers to the market value of buildings and structures, excluding the land and other improvements on the parcel. Market value shall be determined by one of the following methods (1) Actual Cash Value

(replacement cost depreciated for age and quality of construction), (2) tax assessment value adjusted to approximate market value by a factor provided by the tax assessor's office, or (3) established by a qualified independent appraiser.

NEW CONSTRUCTION – Structures for which the start of construction commenced on or after the effective date of the first floodplain regulation adopted by a community; includes any subsequent improvements to such structures. New construction includes work determined to be a substantial improvement.

NON-RESIDENTIAL – Pursuant to ASCE 24, any building or structure or portion thereof that is not classified as residential.

ORDINARY MAINTENANCE AND MINOR WORK – This term refers to types of work excluded from construction permitting under N.J.A.C. 5:23 in the March 5, 2018 New Jersey Register. Some of these types of work must be considered in determinations of substantial improvement and substantial damage in regulated floodplains under 44 CFR 59.1. These types of work include but are not limited to replacements of roofing, siding, interior finishes, kitchen cabinets, plumbing fixtures and piping, HVAC and air conditioning equipment, exhaust fans, built in appliances, electrical wiring, etc. Improvements necessary to correct existing violations of State or local health, sanitation, or code enforcement officials which are the minimum necessary to assure safe living conditions and improvements of historic structures as discussed in 44 CFR 59.1 shall not be included in the determination of ordinary maintenance and minor work.

RECREATIONAL VEHICLE – A vehicle that is built on a single chassis, 400 square feet or less when measured at the largest horizontal projection, designed to be self-propelled or permanently towable by a light-duty truck, and designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel or seasonal use. A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices and has no permanently attached additions.

REPETITIVE LOSS – Any flood-related damage sustained by a structure on two separate occasions during any 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 damage occurred.

RESIDENTIAL – Pursuant to the ASCE 24:

a. Buildings and structures and portions thereof where people live or that are used for sleeping purposes on a transient or non-transient basis;
b. Structures including but not limited to one- and two-family dwellings, townhouses, condominiums, multi-family dwellings, apartments, congregate residences, boarding houses, lodging houses, rooming houses, hotels, motels, apartment buildings, convents, monasteries, dormitories, fraternity houses, sorority houses, vacation time-share properties; and
c. institutional facilities where people are cared for or live on a 24-hour basis in a supervised environment, including but not limited to board and care facilities, assisted living facilities, halfway houses, group homes, congregate care facilities, social rehabilitation facilities, alcohol and drug centers, convalescent facilities, hospitals, nursing homes, mental hospitals, detoxification facilities, prisons, jails, reformatories, detention centers, correctional centers, and prerelease centers.

SOLID WASTE DISPOSAL – “Solid Waste Disposal" shall mean the storage, treatment, utilization, processing or final disposition of solid waste as described in N.J.A.C. 7:26-1.6 or the storage of unsecured materials as described in N.J.A.C. 7:13-2.3 for a period of greater than 6 months as specified in N.J.A.C. 7:26 which have been discharged, deposited, injected, dumped, spilled, leaked, or placed into any land or water such that such solid waste may enter the environment or be emitted into the air or discharged into any waters, including groundwaters.

SPECIAL FLOOD HAZARD AREA – The greater of the following: (1) Land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year, shown on the FIRM as Zone V, VE, V1-3-, A, AO, A1-30, AE, A99, or AH; (2) Land and the space above that land, which lies below the peak water surface elevation of the flood hazard area design flood for a particular water, as determined using the methods set forth in the New Jersey Flood Hazard Area Control Act in N.J.A.C. 7:13; (3) Riparian Buffers as determined in the New Jersey Flood Hazard Area Control Act in N.J.A.C. 7:13. Also referred to as the AREA OF SPECIAL FLOOD HAZARD.

START OF CONSTRUCTION – The **Start of Construction is as follows:**

a. **For other than new construction or substantial improvements, under the** Coastal Barrier Resources Act (CBRA), this is the date the building permit was issued, provided that the actual start of construction, repair, 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 building on site, such as the pouring of a slab or footing, the installation of piles, the construction of columns or any work beyond the stage of excavation; or the placement of a manufactured (mobile) home on a foundation. For a substantial improvement, 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.

b. For the purposes of determining whether proposed construction must meet new requirements when National Flood Insurance Program (NFIP) maps are issued or revised and Base Flood Elevation's (BFEs) increase or zones change, the Start of Construction includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation.

   Permanent construction does not include land preparation, such as clearing, grading, and filling, nor does it include the installation of streets and/or walkways; nor does it include excavation for 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. Such development must also be permitted and must meet new requirements when National Flood Insurance Program (NFIP) maps are issued or revised and Base Flood Elevation's (BFEs) increase or zones

change.

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.

For determining if new construction and substantial improvements within the Coastal Barrier Resources System (CBRS) can obtain flood insurance, a different definition applies.

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 50 percent of the market value of the structure before the damage occurred.

SUBSTANTIAL IMPROVEMENT – Any reconstruction, rehabilitation, addition, or other improvement of a structure taking place over a one-year period, the cumulative cost of which equals or exceeds 50 percent of the market value of the structure before the "start of construction" of the improvement. The period of accumulation includes all work done or proposed within one year of the application to repair, restore or improve the structure. This term also includes structures which have incurred "repetitive loss" or "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 a "historic structure", provided that the alteration will not preclude the structure's continued designation as a "historic structure."

UTILITY AND MISCELLANEOUS GROUP U BUILDINGS AND STRUCTURES – Buildings and structures of an accessory character and miscellaneous structures not classified in any special occupancy, as described in ASCE 24.

VARIANCE – A grant of relief from the requirements of this section which permits construction in a manner otherwise prohibited by this section where specific enforcement would result in unnecessary hardship.

VIOLATION – A development that is not fully compliant with these regulations or the flood provisions of the building code. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in this ordinance is presumed to be in violation until such time as that documentation is provided.

WATER SURFACE ELEVATION – the height, in relation to the North American Vertical Datum (NAVD) of 1988, (or other datum, where specified) of floods of various magnitudes and frequencies in the flood plains of coastal or riverine areas.

WATERCOURSE. A river, creek, stream, channel, or other topographic feature in, on, through, or over which water flows at least periodically.

WET FLOODPROOFING – Floodproofing method that relies on the use of flood damage resistant materials and construction techniques in areas of a structure that are below the Local Design Flood Elevation by intentionally allowing them to flood. The application of wet floodproofing as a flood protection technique under the National Flood Insurance Program (NFIP) is limited to enclosures below elevated residential and non-residential structures and to accessory and agricultural structures that have been issued variances by the community.

SECTION 301 SUBDIVISIONS AND OTHER DEVELOPMENTS

301.1 General. Any subdivision proposal, including proposals for manufactured home parks and subdivisions, or other proposed new development in a flood hazard area shall be reviewed to assure that:

(1) All such proposals are consistent with the need to minimize flood damage.

(2) All public utilities and facilities, such as sewer, gas, electric and water systems are located and constructed to minimize or eliminate flood damage.

(3) Adequate drainage is provided to reduce exposure to flood hazards; in Zones AH and AO, adequate drainage paths shall be provided to guide floodwater around and away from structures.

301.2 Subdivision requirements. Where any portion of proposed subdivisions, including manufactured home parks and subdivisions, lies within a flood hazard area, the following shall be required:

(1) The flood hazard area, including floodways, coastal high hazard areas, and Coastal A Zones, and base flood elevations, as appropriate, shall be delineated on tentative subdivision plats.

(2) Residential building lots shall be provided with adequate buildable area outside the floodway.

(3) The design criteria for utilities and facilities set forth in these regulations and appropriate codes shall be met.

SECTION 401 SITE IMPROVEMENT

401.1 Encroachment in floodways. Development, land disturbing activity, and encroachments in floodways shall not be authorized unless it has been demonstrated through hydrologic and hydraulic analyses required in accordance with Section 105.3(1) of these regulations, that the proposed encroachment will not result in any increase in the base flood level during occurrence of the base flood discharge. If Section 105.3(1) is satisfied, proposed elevation, addition, or reconstruction of a lawfully existing structure within a floodway shall also be in accordance with Section 801.2 of this ordinance and the floodway requirements of N.J.A.C. 7:13.

401.1.1 Prohibited in floodways. The following are prohibited activities:

(1) The storage of unsecured materials is prohibited within a floodway pursuant to N.J.A.C. 7:13.

(2) Fill and new structures are prohibited in floodways per N.J.A.C. 7:13.

401.2 Sewer facilities. All new and replaced sanitary sewer facilities, private sewage treatment plants (including all pumping stations and collector systems) and on-site waste disposal systems shall be designed in accordance with the New Jersey septic system regulations contained in N.J.A.C. 14A and N.J.A.C. 7:9A, the UCC Plumbing Subcode (N.J.A.C. 5:23) and Chapter 7, ASCE 24, to minimize or eliminate infiltration of floodwater into the facilities and discharge from the facilities into flood waters, or impairment of the facilities and systems.

401.3 Water facilities. All new and replacement water facilities shall be designed in accordance with the New Jersey Safe Drinking Water Act (N.J.A.C. 7:10) and the provisions of Chapter 7 ASCE 24, to minimize or eliminate infiltration of floodwater into the systems.

401.4 Storm drainage. Storm drainage shall be designed to convey the flow of surface waters to minimize or eliminate damage to persons or property.

401.5 Streets and sidewalks. Streets and sidewalks shall be designed to minimize potential for increasing or aggravating flood levels.

401.6 Limitations on placement of fill. Subject to the limitations of these regulations, fill shall be designed to be stable under conditions of flooding including rapid rise and rapid drawdown of floodwater, prolonged inundation, and protection against flood-related erosion and scour. In addition to these requirements, when intended to support buildings and structures (Zone A only), fill shall comply with the requirements of the UCC (N.J.A.C. 5:23). Proposed fill and encroachments in flood hazard areas shall comply with the flood storage displacement limitations of N.J.A.C. 7:13.

401.7 Hazardous Materials. The placement or storage of any containers holding hazardous substances in a flood hazard area is prohibited unless the provisions of N.J.A.C. 7:13 which cover the placement of hazardous substances and solid waste is met.

SECTION 501 MANUFACTURED HOMES

501.1 General. All manufactured homes installed in flood hazard areas shall be installed pursuant to the Nationally Preemptive Manufactured Home Construction and Safety Standards Program (24 CFR 3280).

501.2 Elevation. All new, relocated, and replacement manufactured homes to be placed or substantially improved in a flood hazard area shall be elevated such that the bottom of the frame is elevated to or above the elevation specified in Section 801.2.

501.3 Foundations. All new, relocated, and replacement manufactured homes, including substantial improvement of existing manufactured homes, shall be placed on foundations as specified by the manufacturer only if the manufacturer's installation instructions specify that the home has been designed for flood-resistant considerations and provides the conditions of applicability for velocities, depths, or wave action as required by 24 CFR

Part 3285-302. The Floodplain Administrator is authorized to determine whether the design meets or exceeds the performance necessary based upon the proposed site location conditions as a precondition of issuing a flood damage prevention permit. If the Floodplain Administrator determines that the home's performance standards will not withstand the flood loads in the proposed location, the applicant must propose a design certified by a New Jersey licensed design professional and in accordance with 24 CFR 3285.301 (c) and (d) which conforms with ASCE 24, the accepted standard of engineering practice for flood resistant design and construction.

501.4 Anchoring. All new, relocated, and replacement manufactured homes to be placed or substantially improved in a flood hazard area shall be installed using methods and practices which minimize flood damage and shall be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement. This requirement is in addition to applicable State and local anchoring requirements for resisting wind forces.

501.5 Enclosures. Fully enclosed areas below elevated manufactured homes shall comply with the requirements of Section 801.2.

501.6 Protection of mechanical equipment and outside appliances. Mechanical equipment and outside appliances shall be elevated to or above the elevation of the bottom of the frame required in Section 801.2 of these regulations.

> **Exception.** Where such equipment and appliances are designed and installed to prevent water from entering or accumulating within their components and the systems are constructed to resist hydrostatic and hydrodynamic loads and stresses, including the effects of buoyancy, during the occurrence of flooding up to the elevation required by Section 801.2, the systems and equipment shall be permitted to be located below that elevation. Electrical wiring systems shall be permitted below the design flood elevation provided they conform to the provisions of NFPA 70 (National Electric Code).

SECTION 601 RECREATIONAL VEHICLES

601.1 Placement prohibited. The placement of recreational vehicles shall not be authorized in coastal high hazard areas and in floodways.

601.2 Temporary placement. Recreational vehicles in flood hazard areas shall be fully licensed and ready for highway use and shall be placed on a site for less than 180 consecutive days.

601.3 Permanent placement. Recreational vehicles that are not fully licensed and ready for highway use, or that are to be placed on a site for more than 180 consecutive days, shall meet the requirements of Section 801.2 for habitable buildings and Section 501.3.

SECTION 701 TANKS

701.1 Tanks. Underground and above-ground tanks shall be designed, constructed, installed, and anchored in accordance with ASCE 24 and N.J.A.C. 7:13.

SECTION 801 OTHER DEVELOPMENT AND BUILDING WORK

801.1 General requirements for other development and building work. All development and building work, including man-made changes to improved or unimproved real estate for which specific provisions are not specified in these regulations or the Uniform Construction Code (N.J.A.C. 5:23), shall:

(1) Be located and constructed to minimize flood damage;

(2) Meet the limitations of Section 105.3(1) of this ordinance when located in a regulated floodway;

(3) Be anchored to prevent flotation, collapse or lateral movement resulting from hydrostatic and hydrodynamic loads, including the effects of buoyancy, during the conditions of flooding up to the Local Design Flood Elevation determined according to Section 102.3;

(4) Be constructed of flood damage-resistant materials as described in ASCE 24 Chapter 5;

(5) Have mechanical, plumbing, and electrical systems above the Local Design Flood Elevation determined according to Section 102.3 or meet the requirements of ASCE 24 Chapter 7 which requires that attendant utilities are located above the Local Design Flood Elevation unless the attendant utilities and equipment are:

i. Specifically allowed below the Local Design Flood Elevation; and

ii. Designed, constructed, and installed to prevent floodwaters, including any backflow through the system from entering or accumulating within the components.

(6) Not exceed the flood storage displacement limitations in fluvial flood hazard areas in accordance with N.J.A.C. 7:13; and

(7) Not exceed the impacts to frequency or depth of offsite flooding as required by N.J.A.C. 7:13 in floodways.

801.2 Requirements for Habitable Buildings and Structures.

1) Construction and Elevation in A Zones not including Coastal A Zones.

a. No portion of a building is located within a V Zone.

b. No portion of a building is located within a Coastal A Zone, unless a licensed design professional certifies that the building's foundation is designed in accordance with ASCE 24, Chapter 4.

c. All new construction and substantial improvement of any habitable building (as defined in Section 201) located in flood hazard areas shall have the lowest floor, including basement, together with the attendant utilities (including all electrical, heating, ventilating, air-conditioning and other service equipment) and sanitary facilities, elevated to or above the Local Design Flood Elevation as determined in Section 102.3, be in conformance with ASCE Chapter 7, and be confirmed by an Elevation Certificate.

d. All new construction and substantial improvements of non-residential structures shall:

i. Have the lowest floor, including basement, together with the attendant utilities (including all electrical, heating, ventilating, air-conditioning and other service equipment) and sanitary facilities, elevated to or above the Local Design Flood Elevation as determined in Section 102.3, be in conformance with ASCE Chapter 7, and be confirmed by an Elevation Certificate; or

ii. Together with the attendant utility and sanitary facilities, be designed so that below the Local Design Flood Elevation, the structure:
    1. Meets the requirements of ASCE 24 Chapters 2 and 7; and
    2. Is constructed according to the design plans and specifications provided at permit application and signed by a licensed design professional, is certified by that individual in a Floodproofing Certificate, and is confirmed by an Elevation Certificate.

e. All new construction and substantial improvements with fully enclosed areas below the lowest floor shall be used solely for parking of vehicles, building access, or storage in an area other than a basement and which are subject to flooding. Enclosures shall:

iii. For habitable structures, be situated at or above the adjoining exterior grade along at least one entire exterior wall, in order to provide positive drainage of the enclosed area in accordance with N.J.A.C. 7:13; enclosures (including crawlspaces and basements) which are below grade on all sides are prohibited;

iv. Be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters unless the structure is non-residential and the requirements of 801.2.1(d)ii are met;

v. Be constructed to meet the requirements of ASCE 24 Chapter 2;

vi. Have openings documented on an Elevation Certificate; and

vii. Have documentation that a deed restriction has been obtained for the lot if the enclosure is greater than six feet in height. This deed restriction shall be recorded in the Office of the County Clerk or the Registrar of Deeds and Mortgages in which the building is located, shall conform to the requirements in N.J.A.C.7:13, and shall be recorded within 90 days of receiving a Flood Hazard Area Control Act permit or prior to the start of any site disturbance (including pre-construction earth movement, removal of vegetation and structures, or construction of the project), whichever is sooner. Deed restrictions must explain and disclose that:

    1. The enclosure is likely to be inundated by floodwaters which may result in damage and/or inconvenience.
    2. The depth of flooding that the enclosure would experience to the Flood Hazard Area Design Flood Elevation;
    3. The deed restriction prohibits habitation of the enclosure and explains that converting the enclosure into a habitable area may subject the property owner to enforcement;

f. For new construction or substantial improvements, enclosures shall be less than 295 square feet in size.

g. For all properties with previous flood damage to utilities and/or equipment the electrical, heating, ventilation, plumbing and air-conditioning equipment and other

service facilities shall be elevated to two feet above the Base Flood Elevation whenever this equipment is replaced.

801.3 Garages and accessory storage structures. Garages and accessory storage structures shall be designed and constructed in accordance with the Uniform Construction Code.

801.4 Fences. Fences in floodways that have the potential to block the passage of floodwater, such as stockade fences and wire mesh fences, shall meet the requirements of Section 105.3(1) of these regulations. Pursuant to N.J.A.C. 7:13, any fence located in a floodway shall have sufficiently large openings so as not to catch debris during a flood and thereby obstruct floodwaters, such as barbed-wire, split-rail, or strand fence. A fence with little or no open area, such as a chain link, lattice, or picket fence, does not meet this requirement. Foundations for fences greater than 6 feet in height must conform with the Uniform Construction Code. Fences for pool enclosures having openings not in conformance with this section but in conformance with the Uniform Construction Code to limit climbing require a variance as described in Section 107 of this ordinance.

801.5 Retaining walls, sidewalks, and driveways. Retaining walls, sidewalks and driveways that involve placement of fill in floodways shall meet the requirements of Section 105.3(1) of these regulations and N.J.A.C. 7:13.

801.6 Swimming pools. Swimming pools shall be designed and constructed in accordance with the Uniform Construction Code. Above-ground swimming pools and below-ground swimming pools that involve placement of fill in floodways shall also meet the requirements of Section 105.3(1) of these regulations. Above-ground swimming pools are prohibited in floodways by N.J.A.C. 7:13.

801.7 Roads and watercourse crossings.

(1) For any railroad, roadway, or parking area proposed in a flood hazard area, the travel surface shall be constructed at least one foot above the Flood Hazard Area Design Elevation in accordance with N.J.A.C. 7:13.
(2) Roads and watercourse crossings that encroach into regulated floodways or riverine waterways with base flood elevations where floodways have not been designated, including roads, bridges, culverts, low- water crossings and similar means for vehicles or pedestrians to travel from one side of a watercourse to the other side, shall meet the requirements of Section 105.3(1) of these regulations.

SECTION 901 TEMPORARY STRUCTURES AND TEMPORARY STORAGE

901.1 Temporary structures. Temporary structures shall be erected for a period of less than 180 days. Temporary structures shall be anchored to prevent flotation, collapse or lateral movement resulting from hydrostatic loads, including the effects of buoyancy, during conditions of the base flood. Fully enclosed temporary structures shall have flood openings that are in accordance with ASCE 24 to allow for the automatic entry and exit of flood waters.

901.2 Temporary storage. Temporary storage includes storage of goods and materials for a

period of less than 180 days. Stored materials shall not include hazardous materials.

901.3 Floodway encroachment. Temporary structures and temporary storage in floodways shall meet the requirements of Section 105.3(1) of these regulations.

SECTION 1001 UTILITY AND MISCELLANEOUS GROUP U

1001.1 Utility and Miscellaneous Group U. In accordance with Section 312 of the International Building Code, Utility and Miscellaneous Group U includes buildings and structures that are accessory in character and miscellaneous structures not classified in any specific occupancy in the Building Code, including, but not limited to, agricultural buildings, aircraft hangars (accessory to a one- or two-family residence), barns, carports, communication equipment structures (gross floor area less than 1,500 sq. ft.), fences more than 6 feet (1829 mm) high, grain silos (accessory to a residential occupancy), livestock shelters, private garages, retaining walls, sheds, stables, tanks and towers.

1001.2 Flood loads. Utility and miscellaneous Group U buildings and structures, including substantial improvement of such buildings and structures, shall be anchored to prevent flotation, collapse or lateral movement resulting from flood loads, including the effects of buoyancy, during conditions up to the Local Design Flood Elevation as determined in Section 102.3.

1001.3 Elevation. Utility and miscellaneous Group U buildings and structures, including substantial improvement of such buildings and structures, shall be elevated such that the lowest floor, including basement, is elevated to or above the Local Design Flood Elevation as determined in Section 102.3 and in accordance with ASCE 24. Utility lines shall be designed and elevated in accordance with N.J.A.C. 7:13.

1001.4 Enclosures below base flood elevation. Fully enclosed areas below the design flood elevation shall be constructed in accordance with Section 801.2 and with ASCE 24 for new construction and substantial improvements. Existing enclosures such as a basement or crawlspace having a floor that is below grade along all adjoining exterior walls shall be abandoned, filled-in, and/or otherwise modified to conform with the requirements of N.J.A.C. 7:13 when the project has been determined to be a substantial improvement by the Floodplain Administrator.

1001.5 Flood-damage resistant materials. Flood-damage-resistant materials shall be used below the Local Design Flood Elevation determined in Section 102.3.

1001.6 Protection of mechanical, plumbing, and electrical systems. Mechanical, plumbing, and electrical systems, equipment and components, heating, ventilation, air conditioning, plumbing fixtures, duct systems, and other service equipment, shall be elevated to or above the Local Design Flood Elevation determined in Section 102.3.

> **Exception:** Electrical systems, equipment and components, and heating, ventilating, air conditioning, and plumbing appliances, plumbing fixtures, duct systems, and other service equipment shall be permitted to be located below the Local Design Flood Elevation provided that they are designed and installed to prevent water from entering or accumulating within the components and to resist hydrostatic and hydrodynamic loads and stresses, including the effects of buoyancy, during the occurrence of flooding to the Local Design Flood Elevation in compliance with the flood-resistant construction

requirements of ASCE 24. Electrical wiring systems shall be permitted to be located below the Local Design Flood Elevation provided they conform to the provisions of NFPA 70 (National Electric Code).

SECTION 3. SEVERABILITY.
Where any section, subsection, sentence, clause, or phrase of these regulations is, for any reason, declared by the courts to be unconstitutional or invalid, such decision shall not affect the validity of the regulations as a whole, or any part thereof, other than the part so declared.

SECTION 4. EFFECTIVE DATE.
This ordinance shall take effect in accordance to applicable law.

INTRODUCED AND FIRST READING: March 16, 2023
PUBLIC HEARING AND SECOND READING: April 20, 2023