ORDINANCE NO. 2023-27

AN ORDINANCE OF THE MUNICIPALITY OF PRINCETON ADOPTING "THE FLOODPLAIN MANAGEMENT REGULATIONS OF THE MUNICIPALITY OF PRINCETON" AND AMENDING THE "CODE OF THE BOROUGH OF PRINCETON, NEW JERSEY, 1974".

WHEREAS, the Legislature of the State of New Jersey has, in N.J.S.A. 40:48 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 (FEMA) has identified special flood hazard areas within the boundaries of the Municipality of Princeton (Princeton), 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, Princeton was accepted for participation in the National Flood Insurance Program (NFIP) on December 4, 1984 and the Mayor and Council desires to continue to meet the requirements of Title 44 Code of Federal Regulations, Sections 59, 60, 65 and 70, which is necessary for such participation; and

WHEREAS, Princeton 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, Princeton seeks to, pursuant to N.J.S.A. 40:49-5, prescribe appropriate penalties for violations of its ordinances, including those that secure safety from floods; and

WHEREAS, Princeton 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 a minimum conform to the standards promulgated by the New Jersey Department of Environmental Protection (NJDEP); and

WHEREAS, based upon a recent audit of the NJDEP's model floodplain management ordinances by FEMA for conformance with the NFIP regulations, FEMA and NJDEP have developed new model ordinances for adoption by New Jersey municipalities, appropriate to each community's designation as "Coastal" or "Riverine," and consistent therewith, Princeton is obligated to, and therefore seeks to, adopt the "Riverine" Model ordinance.

NOW, THEREFORE, BE IT ORDAINED by the Mayor and Council of Princeton that the following floodplain management regulations are hereby adopted, and specifically as follows:

SECTION 1. RECITALS. The foregoing "whereas" clauses are incorporated herein by reference and made a part hereof.

SECTION 2. Chapter 14A of the "Code of the Borough of Princeton, New Jersey, 1974," entitled "Flood Damage Prevention," is hereby repealed in its entirety and replaced by a new Chapter 14A entitled "Floodplain Management Regulations," which shall read as follows:

CHAPTER 14A. FLOODPLAIN MANAGEMENT REGULATIONS

ARTICLE I SCOPE AND ADMINISTRATION; GENERAL REQUIREMENTS

Sec. 14A-1.1 Title.

These regulations, in combination with the provisions of the Uniform Construction Code, N.J.A.C. 5:23 (UCC), and the New Jersey Flood Hazard Area Control Act, N.J.A.C. 7:13 (FHACA), which provide standards for the purpose of flood damage prevention and reduction, shall be known as the Floodplain Management Regulations of the Municipality of Princeton (hereinafter "these regulations").

Sec. 14A-1.2 Scope.

These regulations, in combination with the flood provisions of the UCC and FHACA, shall apply to all proposed development in flood hazard areas established in Article II of these regulations. Should these regulations differ from the requirements set forth in the UCC and/or FHAC, the most restrictive requirements shall govern.

Sec. 14A-1.3 Purposes and objectives.

(a) Princeton adopts these regulations to comply with FEMA minimum standards and the NJDEP's mandates to adopt the NJDEP's "Riverine" model ordinance.

(b) 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 44 C.F.R. § 59.22.

Sec. 14A-1.4 Coordination with Building Codes.

Pursuant to the requirement established in the UCC, that Princeton administer and enforce the State building codes, the Mayor and Council do hereby acknowledge that the UCC 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 UCC.

Sec. 14A-1.5 Ordinary Building Maintenance and Minor Work.

Improvements defined as ordinary building maintenance and minor work projects by the UCC 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 14A-3.14 of these regulations.

Sec. 14A-1.6 Warning.

The degree of flood protection required by these regulations has been determined by FEMA and the NJDEP to be reasonable for regulatory purposes and 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.

Sec. 14A-1.7 Other Laws.

The provisions of these regulations shall not be deemed to nullify any provisions of local, State, or Federal law. In the event the provisions of these regulations differ from any provision of local, State or Federal law governing flood damage prevention purposes, the most restrictive standard shall govern.

Sec. 14A-1.8 General Prohibition; Violations and Penalties for Noncompliance.

(a) No person shall hereafter:

(1) Perform any development in any flood hazard area without a Floodplain

Development Permit issued pursuant to these regulations; or

(2) Perform any development activity that is in conflict with an issued Floodplain Development Permit;

(3) Construct, relocate, extend, convert or alter a structure unless in compliance with these regulations; or

(4) Otherwise fail to comply with the applicable requirements of these regulations.

(b) Any person who fails to comply with the provisions of these regulations (including violations of conditions and safeguards established in connection with conditions) shall be in violation hereof and shall be subject to the penalties as set forth in Article VIII of these regulations.

Sec. 14A-1.8.1 Reserved.

Sec. 14A-1.9 Abrogation and Greater Restrictions.

These regulations supersede any other requirement of this Code in effect in flood hazard areas. However, these regulations are not intended to repeal or abrogate any existing land development regulations, stormwater management regulations, or building codes; except that, in the event of a conflict between these regulations and any land development regulation, stormwater management regulation, or building code, the more restrictive shall govern.

ARTICLE II APPLICABILITY

Sec. 14A-2.1 General.

These regulations, in conjunction with the UCC, provide minimum requirements for any development located in flood hazard areas, including 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.

Sec. 14A-2.2 Establishment of Flood Hazard Areas.

Princeton was accepted for participation in the National Flood Insurance Program on December 4, 1984.

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 (FIRM), most recent preliminary FEMA mapping and flood studies, and NJDEP 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 Engineering Department, Municipality of Princeton, 400 Witherspoon Street, Princeton, NJ 08540.

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

(a) **Effective Flood Insurance Study.** Special Flood Hazard Areas (SFHAs) identified by FEMA in a scientific and engineering report entitled *"Flood Insurance Study, Mercer County, New Jersey (All Jurisdictions)"* dated July 20, 2016 and the accompanying FIRMs identified in Table 14A-2.2(a) whose effective date is July 20, 2016 are hereby adopted by reference.

Table 14A-2.2(a)

Map Panel #	Effective Date	Suffix	Map Panel #	Effective Date	Suffix
34021C0038F	July 20, 2016		34021C0131F	July 20, 2016	
34021C0039F	July 20, 2016		34021C0132F	July 20, 2016	
34021C0043F	July 20, 2016		34021C0133F	July 20, 2016	
34021C0044F	July 20, 2016		34021C0134F	July 20, 2016	
34021C0063F	July 20, 2016		34021C0137F	July 20, 2016	
34021C0126F	July 20, 2016		34021C0141F	July 20, 2016	
34021C0127F	July 20, 2016		34021C0151F	July 20, 2016	
34021C0129F	July 20, 2016				

(b) The most restrictive 0.2% annual chance (500 year) effective or preliminary FEMA flood study is adopted by these regulations for consideration when establishing the Best Available Flood Hazard Data Area.

Sec. 14A-2.3 Establishing the Local Design Flood Elevation (LDFE).

The Local Design Flood Elevation (LDFE) is established in the flood hazard areas determined in Section 14A-2.2, above, using the Best Available Flood Hazard Data Area sources, and the Flood Hazard Area Control Act minimum Statewide elevation requirements for lowest floors in A zones, ASCE 24 requirements for critical facilities as specified by the building code, plus additional freeboard as specified by these regulations.

At a minimum, the LDFE shall be as follows:

(a) For a delineated watercourse, the elevation associated with the Best Available Flood Hazard Data Area determined in Section 14A-2.2 above, plus two feet (or such height greater than two feet, if prescribed by N.J.A.C. 7:13) of freeboard; or

(b) For any undelineated watercourse (where mapping or studies described in Section 14A-2.2(a) and (b) 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:

(1) 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

(2) 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 14A-5.2 to -3.

(c) 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 feet above the highest adjacent grade.

(d) 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 two feet of freeboard in accordance with ASCE 24.

ARTICLE III DUTIES AND POWERS OF THE FLOODPLAIN ADMINISTRATOR

Sec. 14A-3.1 Floodplain Administrator Designation.

The Floodplain Administrator shall have the authority to delegate performance of certain duties to other employees. For purposes of these regulations, the individual within the Princeton Engineering Department who serves as the Land Use Engineer shall also have the duties and powers of the Floodplain Administrator.

Sec. 14A-3.2 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 Article VII of these regulations.

Sec. 14A-3.3 Coordination.

The Floodplain Administrator shall coordinate with the Construction Official to administer and enforce the flood provisions of the UCC.

Sec. 14A-3.4 Duties.

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

(a) Review all Floodplain Development Permit Applications submitted under these regulations to determine whether proposed development is located in flood hazard areas established in Article II.

(b) 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.

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

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

(e) Review required certifications and documentation specified by these regulations and the building code to determine that such certifications and documentations are complete, which shall include, but not be limited to Elevation Certificates, Floodproofing Certificates, hydrologic and hydraulic engineering analyses, grading plans, site plans, etc.

(f) Establish, in coordination with the Construction Official, written procedures for administering and documenting determinations of substantial improvement and substantial damage made pursuant to Section 14A-3.14 of these regulations.

(g) 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.

(h) 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 UCC to determine whether such requests require consideration as a variance pursuant to Article VII of these regulations.

(i) Require applicants who submit hydrologic and hydraulic engineering analyses to support Floodplain Development Permit Applications to submit to FEMA the data and information necessary to maintain the FIRMs 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.

(j) 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 FEMA.

(k) Inspect development in accordance with Section 14A-1.6 of these regulations and inspect flood hazard areas to determine if development is undertaken without issuance of permits.

(l) Prepare comments and recommendations for consideration when applicants seek variances in accordance with Section 14A-1.7 of these regulations.

(m) Issue notices of violations in accordance with Article VIII of these regulations.

(n) Notify FEMA when the corporate boundaries of the Municipality of Princeton have been modified.

(o) Permit Ordinary Maintenance and Minor Work in the regulated areas as set forth in Section 14A-2.2.

Sec. 14A-3.5 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 FIRM revision and has received the approval of FEMA . 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 other related feature.

Sec. 14A-3.6 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.

Sec. 14A-3.7 Determination of Local Design Flood Elevations.

If design flood elevations are not specified, the Floodplain Administrator is authorized to require the applicant to:

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

(b) 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 Sections 14A-2.2 and 14A-2.3 respectively. This information shall be provided to the Construction Official and documented according to Section 14A-3.15.

Sec. 14A-3.8 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 44 C.F.R. § 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.

Sec. 14A-3.9 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 boundaries of the Municipality of Princeton.

Sec. 14A-3.10 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.

Sec. 14A-3.10.1 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 FIRM and has received the approval of FEMA.

Sec. 14A-3.11 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.

Sec. 14A-3.11.1 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.

Sec. 14A-3.12. **Reserved**.

Sec. 14A-3.13 Development in Riparian Zones.

All development in Riparian Zones as described in N.J.A.C. 7:13 is prohibited by these regulations 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 these regulations. 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.

Sec. 14A-3.14 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:

(a) Estimate the market value, or require 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.

(b) Determine and include the costs of all ordinary maintenance and minor work, as discussed in Section 14A-2.2, performed in the floodplain regulated by these regulations in addition to the costs of those improvements regulated by the Construction Official in substantial damage and substantial improvement calculations.

(c) 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.

(d) Determine and document whether the proposed work constitutes substantial improvement or repair of substantial damage.

(e) 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.

Sec. 14A-3.15 Maintenance of 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, FIRMs; 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.

Sec. 14A-3.16 Reserved.

ARTICLE IV FLOODPLAIN DEVELOPMENT PERMITS

Sec. 14A-4.1 Floodplain Development 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 Floodplain Development 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 any applicable permits.

Sec. 14A-4.2 Application for Floodplain Development Permit.

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

(a) Identify and describe the development to be covered by the Floodplain Development Permit.

(b) 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.

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

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

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

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

Sec. 14A-4.3 Validity of Floodplain Development Permit.

Notwithstanding the issuance of a Floodplain Development Permit under these regulations, the Floodplain Administrator shall be authorized to (a) require the correction of errors in the documents and information submitted as part of the Floodplain Development Permit Application or in the Floodplain Development Permit itself and (b) prevent occupancy or use of a structure or property which is in violation of these regulations or other ordinances of the municipality.

Sec. 14A-4.4 Expiration.

A Floodplain Development Permit shall become invalid if the proposed development is not commenced within 180 days after its issuance, or if 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.

Sec. 14A-4.5 Suspension or Revocation.

The Floodplain Administrator is authorized to suspend or revoke a Floodplain Development 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 municipality.

ARTICLE V PLANS AND CONSTRUCTION DOCUMENTS

Sec. 14A-5.1 Information for Development in Flood Hazard Areas.

The 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:

(a) 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.

(b) 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 14A-5.2.

(c) 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 14A-5.2(c).

(d) Location of the proposed activity and proposed structures, and locations of existing buildings and structures.

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

(f) 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.

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

(h) 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 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.

Sec. 14A-5.2 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:

(a) 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.

(b) 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.

(c) 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.

Sec. 14A-5.3 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 plan and construction documents:

(a) 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 14A-5.4 of these regulations and shall submit the Conditional Letter of Map Revision, if issued by FEMA,

with the plan and construction documents.

(b) 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.

(c) 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 14A-5.4 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.

(d) Reserved.

(e) 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).

Sec. 14A-5.4 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.

ARTICLE VI INSPECTIONS

Sec. 14A-6.1 General.

Development for which a permit is required pursuant to these regulations 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.

Sec. 14A-6.2 Inspections of Development.

The Floodplain Administrator shall inspect all development in flood hazard areas authorized by

issuance of Floodplain Development Permits under these regulations. The Floodplain Administrator shall inspect flood hazard areas from time to time to determine if development has been or is being undertaken without issuance of a Floodplain Development Permit.

Sec. 14A-6.3 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 UCC, N.J.A.C. 5:23.

(a) **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 14A-15.2 shall be submitted to the Construction Official on an Elevation Certificate.

(b) **Installation of attendant utilities** (electrical, heating, ventilating, air-conditioning, and other service equipment) and sanitary facilities elevated as discussed in Section 14A-15.2.

(c) **Final inspection.** Prior to the final inspection, certification of the elevation required in Section 14A-15.2 shall be submitted to the Construction Official on an Elevation Certificate.

Sec. 14A-6.4 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 Floodplain Development 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.

ARTICLE VII VARIANCES

Sec. 14A-7.1 General.

An appeals committee consisting of the Princeton Administrator and Engineer shall hear and decide requests for variances, as that term is defined specifically in these regulations. The appeals committee shall base any determination hereunder on technical justifications submitted by applicants, the considerations for issuance in Section 14A-7.5, the conditions of issuance set forth in Section 14A-7.6, and the comments and recommendations of the Floodplain Administrator and, as applicable, the Construction Official. The appeals committee may attach such conditions to variances as deemed necessary to further the purposes and objectives of these regulations.

Sec. 14A-7.2 Historic Structures.

A variance to the substantial improvement requirements of these regulations 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 these regulations, and the variance is the minimum necessary to preserve the historic character and design of the structure.

Sec. 14A-7.3 Functionally Dependent Uses.

A variance for a functionally dependent use, as said term is defined in these regulations, is only 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.

Sec. 14A-7.4 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 14A-5.3(a) of these regulations.

Sec. 14A-7.5 Considerations.

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

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

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

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

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

(e) 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.

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

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

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

(i) 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.

(j) 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.

Sec. 14A-7.6 Conditions for Issuance.

Variances shall only be issued upon:

(a) 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.

(b) A determination that failure to grant the variance would result in exceptional hardship due to the unique physical and topical conditions of the land that render the lot undevelopable; this determination shall not be related to the individual personal circumstances of the applicant.

(c) 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.

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

ARTICLE VIII VIOLATIONS

Sec. 14A-8.1 Generally.

(a) Any person undertaking any development or activity that is not consistent with the requirements of these regulations shall be in violation hereof.

(b) Any development in any flood hazard area that is being performed without an issued Floodplain Development Permit or that is in conflict with an issued Floodplain Development Permit shall be deemed a violation. A building or structure without the documentation of elevation of the lowest floor, 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.

Sec. 14A-8.2 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 UCC, but is regulated by these regulations and that is determined to be a violation.

Sec. 14A-8.3 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 Section 1-6 of the Princeton Code, as appropriate.

Sec. 14A-8.4 Review Period to Cure or Abate Violations; Complaints in Municipal Court; Penalties.

(a) Any person in violation of these regulations shall have an opportunity to cure or abate the condition underlying the violation during a 30-day period and as set forth in the notice of violation or stop work order.

(b) In the event the person fails to cure or abate such condition during the applicable 30-day period, then the Floodplain Administrator may file a complaint returnable in municipal court to address same. Except as set forth immediately below in Section 14A-8.5, said person shall be subject to the penalties set forth in Section 1-6(a) through (e) of the Princeton Code, entitled "General Penalty; Continuing Violations; Repeat Violations; other Penalties."

Sec. 14A-8.5 Solid Waste Disposal in a Flood Hazard Area.

Any person who has unlawfully disposed of solid waste in a floodway or floodplain in violation of these regulations or any of its requirements shall upon conviction thereof be fined not less than $2,500 or up to a maximum penalty by a fine not exceeding $10,000.

ARTICLE IX DEFINITIONS

Sec. 14A-9.1 General.

The following words and terms shall, for the purposes of these regulations only, have the meanings shown herein, as required by FEMA and the NJDEP. Other terms are defined in the UCC, 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 specifically defined in this Article, such terms shall have ordinarily accepted meanings such as the context implies.

Sec. 14A-9.2 Definitions

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 FIRM zones A, AE, AH, A1–A30, AR, AR/A, AR/AE, AR/A1–A30, AR/AH, and AR/AO.

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 C.F.R. § 60.3(c)(3).

AREA OF SHALLOW FLOODING – A designated Zone AO, AH, AR/AO or AR/AH (or VO) on a community's 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, 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 a building having its floor subgrade (below ground level) on all sides.

BEST AVAILABLE FLOOD HAZARD DATA - 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 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 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 (a) it allows the free passage of floodwaters, and (b) it does not damage the structure or supporting foundation system.

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 OR CLOMR- 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). A CLOMR does not revise an effective NFIP map; rather, 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). A CLOMR-F does not revise an effective NFIP map; rather, 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.

FEDERAL EMERGENCY MANAGEMENT AGENCY OR FEMA – The federal agency responsible for administering the NFIP.

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 (NFIP). 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, approximation, or calculation pursuant to the Flood Hazard Area Control Act Rules at N.J.A.C. 7:13-3.1 through 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 OR FIRM – The official map on which FEMA 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 FEMA has provided flood profiles, as well as the FIRM(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 OR REGULATIONS – The provisions of this chapter 14A, in combination with the provisions of the UCC and FHACA 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 with the Floodplain Development Permit application submitted under these regulations.

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 – For purposes of these regulations only, hardship shall refer to the exceptional hardship that would result from a failure to grant the requested variance, as said term is defined herein. A hardship shall be exceptional, unusual, and peculiar to the property involved. Mere economic or financial hardship alone shall not qualify as a hardship. Inconvenience, aesthetic considerations, physical handicaps, personal preferences, or the disapproval of one's neighbors likewise shall not qualify as a hardship. A problem or concern that 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, shall not be deemed a hardship.

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.

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 these regulations to clarify the applicability of any more stringent statewide floodplain management standards required under the FHACA.

LETTER OF MAP AMENDMENT OR LOMA - 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 municipality must maintain. Any LOMA shall be noted on Princeton’s master flood map and filed by panel number in an accessible location.

LETTER OF MAP CHANGE OR LOMC – 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 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 which are requested through the LOMC process.

LETTER OF MAP REVISION OR LOMR - A Letter of Map Revision (LOMR) is FEMA's modification to an effective 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 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 municipality must maintain. Any LOMR shall be noted on Princeton’s master flood map and filed by panel number in an accessible location.

LETTER OF MAP REVISION – FILL (LOMR-F) - A Letter of Map Revision Based on Fill (LOMR-F) is FEMA's modification of the Special Flood Hazard Area (SFHA) shown on the 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 FIRM, it is a public record that the municipality must maintain. Any LOMR-F shall be noted on Princeton’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 these regulations. 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). 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 Property Appraiser, 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 the municipality; 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, published 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 C.F.R. § 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 C.F.R. § 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 a 10 year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds 25 percent of the market value of the structure before the 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: (a) 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; (b) 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; and (c) 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, 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.

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, the cost of which equals or exceeds 50 percent of the market value of the structure before the “start of construction” of the improvement. This term includes structures

which have incurred “substantial damage”, regardless of the actual repair work performed. 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 these regulations which permits construction in a manner otherwise prohibited by these regulations where specific enforcement would result in a hardship as that term is defined in this Article. The term variance as defined herein shall not be deemed to refer to variances granted pursuant to and governed by the Municipal Land Use Law, N.J.S.A. 40:55D-1 et seq.

VIOLATION – The failure to comply with any provision of this chapter shall constitute a violation hereof. A violation shall include, but not be limited to, a development that is not fully compliant with these regulations or the flood provisions of the building code. In addition, a structure or other development without the required Floodplain Development Permit, elevation certificate, other certifications, or other evidence of compliance required in these regulations 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 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 – A 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.

ARTICLE X DEVELOPMENT IN FLOOD HAZARD AREAS

Sec. 14A-10.1 General.

Any development proposal, including proposals for manufactured home parks, subdivisions involving residential or non-residential development, or other proposed new development in a flood hazard area shall be reviewed to assure that:

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

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

(c) 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.

Sec. 14A-10.2 Requirements.

Where any portion of the proposed development, including manufactured home parks and subdivisions involving residential or non-residential development, lies within a flood hazard area, the following shall be required:

(a) The flood hazard area, including floodways and base flood elevations, as appropriate, shall be delineated on tentative subdivision plats.

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

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

ARTICLE XI SITE IMPROVEMENT

Sec. 14A-11.1 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 14A-5.3(a) 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 14A-5.3(a) is satisfied, proposed elevation, addition, or reconstruction of a lawfully existing structure within a floodway shall also be in accordance with Article XV of these regulations and the floodway requirements of N.J.A.C. 7:13.

Sec. 14A-11.1.1 Prohibited in Floodways.

The following are prohibited activities in floodways:

(a) The storage of unsecured materials, pursuant to N.J.A.C. 7:13.

(b) The placement of fill and construction of new structures, pursuant to N.J.A.C. 7:13.

Sec. 14A-11.2 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 Uniform Construction Code 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.

Sec. 14A-11.3 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.

Sec. 14A-11.4 Storm Drainage.

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

Sec. 14A-11.5 Streets and Sidewalks.

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

Sec. 14A-11.6 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 Uniform Construction Code (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.

Sec. 14A-11.7 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.

ARTICLE XII MANUFACTURED HOMES

Sec. 14A-12.1 General.

Where otherwise permitted by ordinance or land use approval, all manufactured homes installed in flood hazard areas shall be installed pursuant to the Nationally Preemptive Manufactured Home Construction and Safety Standards Program (24 C.F.R. § 3280).

Sec. 14A-12.2 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 14A-15.2.

Sec. 14A-12.3 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 C.F.R. 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 C.F.R. § 3285.301 (c) and (d) which conforms with ASCE 24, the accepted standard of engineering practice for flood resistant design and construction.

Sec. 14A-12.4 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.

Sec. 14A-12.5 Enclosures.

Fully enclosed areas below elevated manufactured homes shall comply with the requirements of Section 14A-15.2.

Sec. 14A-12.6 Protection of Mechanical Equipment and Outside Appliances.

(a) Except as provided in subsection (b) of this Section 14A-12.6, mechanical equipment and outside appliances shall be elevated to or above the elevation of the bottom of the frame required in Section 14A-15.2 of these regulations.

(b) 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 14A-15.2, 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).

ARTICLE XIII RECREATIONAL VEHICLES

Sec. 14A-13.1 Placement Prohibited.

The placement of a recreational vehicle shall not be authorized on any site located in a floodway.

Sec. 14A-13.2 Temporary Placement.

Any recreational vehicles placed on a site in a flood hazard area shall be fully licensed and ready for highway use and shall not remain on that site for 180 consecutive days or more.

Sec. 14A-13.3 Permanent Placement.

Any recreational vehicles placed on a site that is not fully licensed and ready for highway use, or that is to be remain on that site for more than 180 consecutive days, shall meet the requirements of Section 14A-15.2 for habitable buildings.

ARTICLE XIV TANKS

Sec. 14A-14.1 Tanks.

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

ARTICLE XV OTHER DEVELOPMENT AND BUILDING WORK

Sec. 14A-15.1 General Requirements for Other Development and Building Work.

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

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

(b) Meet the limitations of Section 14A-12.3(a) of these regulations when located in a regulated floodway;

(c) 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 14A-2.3;

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

(e) Have mechanical, plumbing, and electrical systems above the Local Design Flood Elevation determined according to Section 14A-2.3 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:

    (1) Specifically allowed below the Local Design Flood Elevation; and

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

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

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

Sec. 14A-15.2 Reserved.

Sec. 14A-15.3 Garages and Accessory Storage Structures.

Accessory structures shall be designed and constructed in accordance with the UCC.

Sec. 14A-15.4 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 14A-5.3(a) 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 UCC. Fences for pool enclosures having openings not in conformance with this section but in conformance with the UCC to limit climbing require a variance as described in Article VII of these regulations.

Sec. 14A-15.5 Retaining Walls, Sidewalks, and Driveways.

Retaining walls, sidewalks and driveways that involve placement of fill in floodways shall meet the requirements of Section 14A-5.3(a) of these regulations and N.J.A.C. 7:13.

Sec. 14A-15.6 Swimming Pools.

Swimming pools shall be designed and constructed in accordance with the UCC. Above-ground swimming pools and below-ground swimming pools that involve placement of fill in floodways shall also meet the requirements of Section 14A-5.3(a) of these regulations. Above-ground swimming pools are prohibited in floodways by N.J.A.C. 7:13.

Sec. 14A-15.7 Roads and Watercourse Crossings.

(a) 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.

(b) 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 14A-5.3(a) of these regulations.

ARTICLE XVI TEMPORARY STRUCTURES AND TEMPORARY STORAGE

Sec. 14A-16.1 Temporary Structures.

Temporary structures subject to these regulations may only 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.

Sec. 14A-16.2 Temporary Storage.

Temporary storage, which means storage of goods and materials subject to these regulations, shall be permitted for a period of less than 180 days. Permitted stored materials shall not include hazardous materials.

Sec. 14A-16.3 Floodway Encroachment.

Temporary structures and temporary storage in floodways shall meet the requirements of Section 14A-5.3(a) of these regulations.

ARTICLE XVII UTILITY AND MISCELLANEOUS GROUP U

Sec. 14A-17.1 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.

Sec. 14A-17.2 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 14A-2.3.

Sec. 14A-17.3 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 14A-2.3 and in accordance with ASCE 24. Utility lines shall be designed and elevated in accordance with N.J.A.C. 7:13.

Sec. 14A-17.4 Enclosures Below Base Flood Elevation.

Fully enclosed areas below the design flood elevation shall be constructed in accordance with Section 14A-15.2 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.

Sec. 14A-17.5 Flood-Damage Resistant Materials.

Flood-damage-resistant materials shall be used below the Local Design Flood Elevation determined in Section 14A-2.3.

Sec. 14A-17.6 Protection of mechanical, plumbing, and electrical systems.

(a) Except as provided in subsection (b) of this Section 14A-17.6, 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 14A-2.3.

(b) 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. If any section, subsection, sentence, clause, phrase or portion of this ordinance is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct, and independent provision, and such holding shall not affect the validity of the remaining portion thereof.

SECTION 4. EFFECTIVE DATE. This ordinance shall take effect upon final adoption and publication as provided by law.

_____ _____

Rayna E. Harris, Municipal Clerk Mark Freda, Mayor

Ordinance Introduced: August 28, 2023
Ordinance Adopted: September 11, 2023

NEWSPAPER PUBLICATIONS:

First Insertion: September 1, 2023
Final Insertion: September 15, 2023