

OTHER AGENCIES

(a)

NEW JERSEY SPORTS AND EXPOSITION AUTHORITY

District Zoning Regulations Floodplain Management

**Adopted Amendments: N.J.A.C. 19:4-5.2, 9.1
through 9.6, 9.8, 9.9, 9.10, 9.11, 9.13, 9.14, 9.18,
9.19, 9.20, 9.22, 9.23, 9.25, and 9.26**

**Adopted New Rules: N.J.A.C. 19:4-9.9A, 9.27, and
9.28**

Proposed: May 6, 2019, at 51 N.J.R. 568(a).

Adopted: July 18, 2019, by the New Jersey Sports and Exposition
Authority, Vincent Prieto, President and CEO.

Filed: July 23, 2019, as R.2019 d.089, **with non-substantial
changes** not requiring additional public notice and comment (see
N.J.A.C. 1:30-6.3).

Authority: N.J.S.A. 5:10A-1 et seq., specifically 5:10A-7(b). See
also N.J.A.C. 19:3-1.5.

Effective Date: August 19, 2019.

Expiration Date: May 4, 2023.

The rule adoption can also be viewed or downloaded from the NJSEA's
website at <https://www.njsea.com/public-notices/>.

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

The NJSEA is a participating community in the Federal Emergency
Management Agency's (FEMA) National Flood Insurance Program
(NFIP) and, as such, is required to ensure that its floodplain management
rules meet or exceed the minimum requirements of the NFIP. See 44 CFR
Section 60. As a result of the adoption and enforcement of NJSEA's
floodplain management rules, Hackensack Meadowlands District
(District) property owners have the ability to apply for, and obtain,
Federally backed flood insurance through the NFIP. After significant
study, FEMA has prepared revised Flood Insurance Rate Maps (FIRM)
and a revised Flood Insurance Study (FIS) report for Bergen County, New
Jersey, which includes the area that encompasses the District. As a
participating community in the NFIP, the NJSEA is required to amend and
add to its floodplain management rules at N.J.A.C. 19:4-9 to reference the
new effective FIRM and FIS report, which according to FEMA's Letter
of Final Determination (LFD), dated February 28, 2019, will become
effective on August 28, 2019. The NJSEA rules currently refer to the
September 30, 2005, FIRM and FIS, and, therefore, must be updated to
meet NFIP requirements. The FIRM panel numbers have also been
revised by FEMA and are required to be updated in the NJSEA rules.
According to the FEMA LFD, communities that fail to enact the necessary
floodplain management regulations will be suspended from participation
in the NFIP.

The New Jersey Department of Environmental Protection (NJDEP) is
designated as the State agency responsible for coordinating Federal, State,
and local aspects of floodplain management activities as required under
the provisions of the NFIP. The goals of the NFIP and the NJDEP include
the reduction of threats to life and property through improved flood hazard
information, enforcement of flood damage reduction regulations, and
promotion of flood damage reduction activities including, and also
exceeding, minimum NFIP standards. In order to facilitate conformance

with NFIP standards, the NJDEP provides participating communities with
a model flood damage prevention ordinance and map adoption language,
and reviews local ordinance and regulation amendments. As a
participating community in the NFIP, the NJSEA is proposing updates to
its rules to conform to NFIP requirements and NJDEP guidance
documents.

In this rulemaking, the NJSEA is also clarifying specific language in
both the general provisions at N.J.A.C. 19:4-5.2 and the floodplain
management rules at N.J.A.C. 19:4-9 in order to eliminate a potential or
perceived conflict. The rules at N.J.A.C. 19:4-5.2(a)3 state that the
minimum floor elevation for structures within the designated 100-year
flood zones shall be established one foot above the applicable 100-year
base flood elevations determined by the FEMA FIRMS. This paragraph
is proposed for amendment to align with the revisions to Subchapter 9,
which will provide clarity and consistency to the reader. In this regard,
while the NJSEA has always required new construction and substantial
improvements to meet the minimum floor elevation noted in Subchapter
5, the existing language at N.J.A.C. 19:4-9.20(b) provides for an option to
either meet the required elevation listed at N.J.A.C. 19:4-5.2(a)3 or
floodproof new construction or substantial improvement of non-
residential construction. As N.J.A.C. 19:4-5.2(a)3, requiring the base
flood elevation plus one foot is the more restrictive of the two options, this
has been the elevation required for such construction. The NJSEA policy
decision to adhere to its longstanding enforcement of N.J.A.C. 19:4-5.2(a)
eliminates the less-restrictive floodproofing option in Subchapter 9. In
addition, the inclusion of a reference to the floodplain management rules
in Subchapter 5 provides for consistency and not a loosening of the
requirements. And while the FEMA standards allow for floodproofing in
place of the base flood elevation plus one foot, the NJSEA has always
exceeded this standard as a matter of policy, by enforcing the stricter of
the two rules out of an abundance of caution for its constituents.

Summary of Hearing Officer's Recommendations and Agency

Responses:

A public hearing on this matter was held on June 11, 2019, at the
NJSEA Offices. Sara Sundell, P.E., P.P., Director of Land Use
Management and Chief Engineer, was the public hearing officer, with
Sharon A. Mascaró, P.E., Deputy Director of Land Use Management and
Deputy Chief Engineer, and Fawzia Shapiro, P.E., P.P., CFM, Assistant
Chief Engineer, also present.

No recommendations were made by Ms. Sundell or NJSEA staff
during the hearing. The hearing record is available for inspection in
accordance with applicant law by contacting:

Sara J. Sundell, P.E., P.P.

Director of Land Use Management and Chief Engineer

New Jersey Sports and Exposition Authority

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Summary of Public Comments and Agency Responses:

The official comment period ended on July 5, 2019. The NJSEA
received comments from:

1. William Sullivan, Esq., Scarinci Hollenbeck, on behalf of the
Meadowlands Regional Chamber of Commerce;

2. Kristine Kalfas, P.E., P.P., Vice President-Site Development and
Engineering, Hartz Mountain Industries, Inc.; and

3. Michael G. McGuinness, CEO, NAIOP, the Commercial Real
Estate Development Association.

1. COMMENT: The rules at N.J.A.C. 19:4-9.20(b) currently allow the
dry floodproofing of non-residential structures. The proposed
amendments eliminate the floodproofing option for new construction or
substantial improvements for non-residential structures and require that
all new structures provide a minimum first floor elevation of one foot
above the 100-year base flood or the design flood elevation set forth on
the FEMA flood maps. The commenter provided a comparison of this
proposed amendment with the NJDEP Flood Hazard Area Protection Act
Program rules, which allow, under certain circumstances, that a structure
can be dry-floodproofed, or if that is not feasible then wet floodproofed.

In either of these instances, the dry-floodproofing or the wet-floodproofing is implemented to an elevation of one foot above the design flood elevation.

The commenter stated that permitting dry-floodproofing and wet-floodproofing would allow the developer to avoid placing additional fill on the site, which results in a loss of area flood storage and potentially impacts neighboring properties and would preserve flexibility for those circumstances in which it makes sense for a developer to look at the floodproofing options instead of bringing in additional fill. The commenter recognized that the waters in the Meadowlands are tidal and, thus, are not subject to the net fill requirement of the DEP Flood Hazard rules; however, reducing the amount of fill placed on the sites would be beneficial for both the applicant and the neighboring properties, as the placement of fill could result in floodwaters being redirected to other sites and the cost of clean fill these days is very high.

The commenter also stated that as the Meadowlands Region comes to grips with the reality of climate change and sea level rise, property owners and developers should be given more options to use as applicable to the particular circumstances and not reducing the number of options available.

RESPONSE: Amending the specific language in both the general provisions at N.J.A.C. 19:4-5.2 and the floodplain management rules at N.J.A.C. 19:4-9 eliminates a potential, or perceived, conflict within the rules. The general provisions do not permit floodproofing as an option for non-residential new buildings and substantial improvements, and the floodplain management rules do. The NJSEA policy decision to adhere to its longstanding enforcement of N.J.A.C. 19:4-5.2(a) eliminates the less-restrictive floodproofing option in Subchapter 9. In addition, the inclusion of a reference to the floodplain management rules in Subchapter 5 provides for consistency and not a loosening of the requirements. The main purpose of these rules is to provide for the protection of the public's health, safety, and general welfare.

The commenter requested that the proposed rules of the NJSEA be revised to match those of the NJDEP Flood Hazard Area Control Act at N.J.A.C. 7:13. While the NJDEP's rules allow certain buildings to utilize dry- and wet-floodproofing in place of providing the same required elevations as in the NJSEA's rules, the NJDEP rules have a number of significant conditions that must be met in order to deviate from the base flood elevation (BFE) plus one foot requirement. Although not expressly permitted in the District, an applicant has the option of requesting a variance from the NJSEA to deviate from its rules. It should be noted that the NJSEA's proposed rules were developed with the assistance and support of the NJDEP's Bureau of Flood Control.

Regarding fill placement in the District for the construction of new buildings and substantial improvements at the required elevation, the statement that elevating a building's first floor to the BFE plus one foot will result in directing flood waters onto other properties is an overgeneralization. The design and circumstances of every proposed development are different, and as such, all proposed development plans submitted to the NJSEA are reviewed in accordance with the District zoning regulations and with consideration taken for the management of stormwater after rainfall events. Tidal flooding is also taken into consideration; however, the type of tidal flooding that the District experiences tends to be a gradual rise in tidal waters, with the exception of extreme events such as Superstorm Sandy.

More than three-quarters of the District is located within a FEMA-designated Special Flood Hazard Area (SFHA), defined as an area that will be inundated by a flood event having a one percent chance of being equaled or exceeded in any given year. With respect to net fill, the District does not maintain net fill requirements due to the tidal nature of the region. Any new structure constructed within the SFHA results in a loss of flood storage no matter the elevation of its first floor. Of particular significance, however, is not the loss of uplands flood storage, but rather the loss of flood storage in the existing wetlands and marshes. Permits for filling in District wetlands are under the jurisdiction of the U.S. Army Corps of Engineers and are discouraged by the policies of the NJSEA. Notwithstanding the commenter's net fill concern, raising the elevation of the first floor of a new building to at least one foot above the base flood elevation provides protections to the public.

Since 1992, the NJSEA has participated in the FEMA NFIP Community Rating System (CRS), which is a voluntary program that affords a discount on flood insurance premium rates for property owners, including businesses, tenants, and residents located in an SFHA in the District. It is a point-based system that accumulates credits for certain activities related to flooding mitigation while providing progressively larger discounts on the premium rates. The NJSEA's current participation in the CRS program maintains the classification of the Meadowlands District as a CRS Class 7 Community, resulting in a 15 percent discount on NFIP policies issued through FEMA. In order to maintain the District's Class 7 rating and the associated discount, the NJSEA must continue to implement certain activities that meet or exceed the CRS-established point system, including the enforcement of higher regulatory standards, such as the requirement that new construction and substantial improvements are elevated at least one foot above the BFE established by the FEMA FIRMs. Relaxing these elevation requirements by allowing floodproofing in lieu of building elevation could put the District's standing with the CRS program at risk, and along with it, the 15 percent discount on NFIP policies afforded to constituent property owners.

Finally, the NJSEA is fully aware of the potential dangers associated with climate change and sea level rise. Allowing new buildings and substantial construction to be built at an elevation that is not only currently at risk for flooding during extreme flooding events, but will be even more so as future sea level rise occurs, would not be taking the most recent science into account and, therefore, would not be prudent. The Science and Technology Advisory Panel (STAP), convened by Rutgers University, released a report in 2016, entitled "Assessing New Jersey's Exposure to Sea-Level Rise and Coastal Storms: Report of the New Jersey Climate Adaptation Alliance Science and Technical Advisory Panel" (STAP Report), which presented a range of estimates of sea level rise (SLR) magnitude for New Jersey, as well as the probability of those estimates occurring. Sea level rise projections for New Jersey are on the order of 1.0 to 1.8 feet by 2050 and 1.7 to 3.1 feet by 2100. With the projected increase in sea level, the impacts of future coastal storms in New Jersey will be magnified. Storm surges combined with higher water levels due to sea level rise will make severe coastal flooding more frequent in the future. Tidally influenced areas like the Meadowlands are also likely to experience increased nuisance, or high tide flooding, in low-lying areas. This type of flooding, which is common in certain Meadowlands communities, occurs even in the absence of severe storms. All of this information underlines the need to require the building elevation standards as proposed and to not permit floodproofing as the only solution for protecting development in the District. Raising all new construction and substantial improvements to at least one foot above the base flood elevation provides the best protection to new development.

2. COMMENT: The commenter referenced N.J.A.C. 19:4-9.13(a)4 and 9.27(a), as they relate to the introduction of new regulations regarding properties that may lie within a floodway. The commenter stated that the NJSEA should make available to the public maps showing the designated floodways in the District and that property owners should have this resource available to determine if there is any impact on their property. The commenter also stated that because these are new regulations, the potential economic impact on affected property owners should be addressed.

RESPONSE: Areas that lie within a floodway are noted as such on the FEMA FIRM maps, including the effective maps currently dated September 2005, which are being superseded by the adopted rules, and the new effective maps dated August 28, 2019, which are noted in the adopted rules at N.J.A.C. 19:4-9.5. The FIRM maps are available on the FEMA website at <https://msc.fema.gov/portal/home> and in the offices of the NJSEA at One DeKorte Park Plaza, Lyndhurst, NJ, as noted at N.J.A.C. 19:4-9.5. It should be noted that there is only one location in the District that is designated as a floodway, which is located on Overpeck Creek in Ridgefield, NJ. The area of the floodway on Overpeck Creek remains unchanged on the adopted FIRM maps.

3. COMMENT: The commenter stated that, with respect to the proposed adoption of ASCE/SEI 24-14, Tables 2-1 and 6-1, as referenced in N.J.A.C. 19:4-9.20, the tables listed have the potential to raise the minimum elevation of a project or the flood proofing of a project one to two feet or more above the current minimum elevation of one foot above

the BFE. The commenter stated that the operational and economic impacts of this new regulation would be substantial in many cases. The commenter also expressed concerns regarding the use of the ASCE Standards as a universal standard and the terminology used in the standard.

RESPONSE: The language proposed regarding the American Society of Civil Engineers (ASCE) publication entitled Flood Resistant Design and Construction, is required to be included in the NJSEA's floodplain management rules by the minimum requirements of the FEMA NFIP. The NJSEA is required to include specific language provided by FEMA in order to participate in the NFIP. According to the FEMA LFD, communities that fail to enact the necessary floodplain management regulations will be suspended from participation in the NFIP. As a participating community in the NFIP, the NJSEA is adopting updates to its rules to conform to NFIP requirements and NJDEP guidance documents.

4. COMMENT: The commenter states that the rules at N.J.A.C. 19:4-9.20 specify that utilities are also regulated by the proposed rule and requests clarification as to what elements of each utility are included. The commenter states that utility companies are responsible for the maintenance and repair of their own equipment and generally determine where their equipment goes and at what elevation. The commenter states that it should also be made clear that underground conveyance systems are not regulated by the proposed minimum elevation requirements.

RESPONSE: The NJSEA declines, as the commenter suggested, to provide additional information regarding elements of each utility that are included in the rules. To be inclusive, such a list would need to catalog every possible piece of equipment associated with each type of utility, which is not practical. With respect to the utility companies' determination of the elevations of their equipment, both the NJSEA and applicants submitting development applications in the District have been successful in communicating the need to elevate certain utility equipment, such as transformers, to the different utility companies in the region. In addition, underground conveyance systems, such as sanitary and stormwater pipes, are not expected to be installed above the minimum elevation standards listed in the rules, and as written, the rules do not suggest such a requirement. Further, the language utilized in the adopted rules is as provided by NJDEP guidance documents that are utilized across New Jersey and NFIP requirements that are utilized throughout the entire country.

Summary of Agency Initiated Changes:

After the notice of proposal for this rulemaking was published, FEMA updated the letter designation of the proposed FIRM panel numbers that will become effective on August 28, 2019, from "J" to "H." As such, in order to align the proposed rules with the FEMA requirements, this non-substantial change has been made in the adopted rules. For example, at N.J.A.C. 19:4-9.5, one of the FIRM panel designations is changed from 0245J to 0245H.

Federal Standards Statement

N.J.S.A. 52:14B-4 requires State agencies that adopt, readopt, or amend State rules that exceed any Federal standards or requirements to include in the rulemaking document a comparison with Federal law. The District is located within the Federally designated Coastal Zone Management Area for New Jersey (designated in accordance with 15 CFR 923.53(a)(1)). The NJSEA acts as the lead coastal planning and management agency for the District under the guidance of the New Jersey Department of Environmental Protection (NJDEP). The NJSEA District Zoning Regulations serve as a regulatory tool for meeting the goals and rules established by the New Jersey Coastal Management Program.

The adopted amendments and new rules have been formulated in order to implement, comply with, and participate in the National Flood Insurance Program, which is a program established under Federal law. In addition, the rules are adopted to correspond to the language of the NJDEP's model ordinance, which corresponds to the requirements of the NFIP regulations at 44 CFR Section 60.3(c). With one exception, the adopted amendments and new rules do not contain any requirements or standards in excess of those imposed under Federal law.

The adopted amendments and new rules, regarding the construction of new or substantially improved non-residential structures located within an A or AE zone on the District's DFIRM, require the lowest floor of such

structures to be elevated 1) at or above the base flood elevation plus one foot; 2) at or above the best available flood hazard data elevation plus one foot; or 3) as required by ASCE/SEI 24-14, Flood Resistant Design and Construction, Table 2-1, whichever is more restrictive.

FEMA/NFIP regulations allow for a secondary option for the construction of new or substantially improved non-residential buildings, which is to floodproof the structures to the required lowest floor plus one foot; thus, not requiring construction of a lowest floor at the elevation of the standards listed. The existing NJSEA regulation at N.J.A.C. 19:4-5.2(a)3, requires the minimum floor elevation for structures within the designated 100-year flood zones to be one foot above the applicable 100-year base flood elevations determined by the FEMA Flood Insurance Rate Maps (FIRMS). FEMA's option of floodproofing is not contemplated at existing N.J.A.C. 19:4-5.2(a)3. However, there is a conflict, wherein existing N.J.A.C. 19:4-9.20(b) permits floodproofing for new and substantially improved non-residential structures. Due to the significant expanse of floodplain within the District, the NJSEA has always enforced the more restrictive standard at N.J.A.C. 19:4-5.2(a)3, which is more protective of life and property in the District, versus permitting floodproofing of new or substantially improved non-residential construction. N.J.A.C. 19:4-9.20(b) is amended to only permit floodproofing for non-substantial non-residential construction, and N.J.A.C. 19:4-5.2(a)3 is amended to provide consistency with the updates to the floodplain management regulations; however, the basic premise continues to be the same, in that the lowest floor must be elevated to protect the structure from flooding.

The continued enforcement of the rules to this higher standard promotes increased protections from 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.

Full text of the adoption follows (additions to proposal indicated in boldface with asterisks *thus*; deletions from proposal indicated in brackets with asterisks *[thus]*):

SUBCHAPTER 5. DISTRICTS, USES AND STANDARDS

19:4-5.2 General provisions

(a) The following provisions shall apply to all zones:

1.-2. (No change.)

3. Minimum lowest floor elevations for structures within the designated 100-year flood zones shall be established one foot above the applicable 100-year base flood elevations determined by the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps (FIRMS), or as required in accordance with N.J.A.C. 19:4-9.20.

4.-7. (No change.)

(b) (No change.)

SUBCHAPTER 9. FLOODPLAIN MANAGEMENT

19:4-9.1 Title

(a) This subchapter shall be known, and may be referred to as, the Floodplain Management Regulations of the Hackensack Meadowlands District.

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

19:4-9.2 Purposes

This subchapter sets forth procedures and engineering and planning standards in accordance with which the NJSEA shall review and approve or disapprove applications for the development or use of land within the

District. This subchapter is designed to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed: to protect human life and health; to minimize expenditure of public money for costly flood control projects; to minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public; to minimize prolonged business interruptions; to minimize damage to new and existing construction; to minimize damage to public and private facilities and utilities, such as water and gas mains, electric, telephone, and sewer lines, streets, and bridges located in areas of special flood hazard; to help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard, so as to minimize future flood blight areas; to ensure that potential buyers are notified that property is in an area of special flood hazard; to ensure that those who own or occupy the areas of special flood hazard assume responsibility for their actions; and generally to provide for the exercise of the powers regarding the review and regulation of land use and development conferred upon the NJSEA by P.L. 2015, c. 19. In order to accomplish its purpose, this subchapter includes methods and provisions for: restricting or prohibiting uses that are dangerous to health, safety, and property due to water or erosion hazards, or that result in damaging increases in erosion, flood heights, or velocities; requiring that uses vulnerable to floods, including facilities that serve such uses, be protected against flood damage at the time of initial construction; controlling the alteration of natural floodplains, stream channels, and natural protective barriers that help accommodate or channel flood waters; controlling filling, grading, dredging, and other development that may increase flood damage; and preventing or regulating the construction of flood barriers that will unnaturally divert flood waters or that may increase flood hazards in other areas.

19:4-9.3 Words and phrases defined

Unless specifically defined in N.J.A.C. 19:4-2 or below, words or phrases used in this subchapter shall be interpreted, so as to give them the meaning they have in common usage and to give this chapter its most reasonable application.

“AH Zone” means an area subject to inundation by one 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 Zone” means an area subject to inundation by one percent annual-chance shallow flooding (usually sheet flow on sloping terrain) where average depths are between one and three feet.

“Area of shallow flooding” means a designated AO or AH zone on the Digital Flood Insurance Rate Map (DFIRM) with a one percent annual or greater chance of flooding to an average depth of one to three feet where a clearly defined channel does not exist; where the path of flooding is unpredictable; and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

“Area of special flood hazard” means the land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year, which is shown on the FIRM as zone V, VE, V1-30, A, AO, A1-A30, AE, A99, or AH.

“Base flood” means the flood having a one percent chance of being equaled or exceeded in any given year.

“Base flood elevation (BFE)” means the flood elevation shown on a published Flood Insurance Study (FIS), including the Flood Insurance Rate Map (FIRM). For zones AE, AH, AO, and A1-A30, the elevation represents the water surface elevation resulting from a flood that has a one percent or greater chance of being equaled or exceeded in any given year.

“Best available flood hazard data” means the most recent available flood risk guidance FEMA has provided. The best available flood hazard data may be depicted on, but is not limited to, Advisory Flood Hazard Area Maps, Work Maps, or Preliminary FIS and FIRM.

“Best available flood hazard data elevation” means the most recent available flood elevation FEMA has provided. The best available flood hazard data elevation may be depicted on an Advisory Flood Hazard Area Map, Work Maps, or Preliminary FIS and FIRM.

...

“Community” means any state or area or political subdivision thereof, or any Indian tribe or authorized tribal organization, or Alaska Native village or authorized native organization, which has authority to adopt and enforce flood plain management regulations for the areas within its jurisdiction.

...

“Digital Flood Insurance Rate Map (DFIRM)” means the official map on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

“Elevated building” means a non-basement building that is:

1. In the case of a building in an area of special flood hazard, built to have the top of the lowest floor, or in the case of a building in a coastal high hazard area, built to have the bottom of the lowest horizontal structural member of the elevated floor, elevated at or above the base flood elevation plus freeboard by means of piling, columns (posts and piers), or shear walls parallel to the flow of the water; and

2. (No change.)

3. In an area of special flood hazard, elevated building also includes a building elevated by means of fill or solid foundation perimeter walls with openings sufficient to facilitate the unimpeded movement of flood waters.

“Existing manufactured home park or subdivision” means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the floodplain management regulations adopted by a community.

...

“Flood insurance study” or “FIS” means the official report provided in which the FIA has provided flood profiles, as well as the FIRM’s and the water surface elevation of the base flood.

“Floodplain Management Regulations” means the zoning and subdivision regulations, building codes, and other applicable rules and regulations. The term describes State rules that provide standards for the purpose of flood damage prevention and reduction.

“Floodproofing” means any combination of structural and nonstructural additions, changes, or adjustments to structures that reduce or eliminate flood damage to real estate or improved real property, water, and sanitary facilities, structures, and their contents.

“Floodway” means 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” means the 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 select size flood and floodway conditions, such as wave action, bridge openings, and the hydrological effect of urbanization of the watershed.

“Highest adjacent grade” means the highest natural elevation of the ground surface prior to construction next to the proposed or existing walls of a structure.

“Historic structure” means any structure that is:

1. (No change.)

2. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

3.-4. (No change.)

“Lowest floor” means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, useable solely for the parking of vehicles, building access, or storage in an area other than a basement is not considered a building’s lowest floor provided that such enclosure is not built so to render the structure in violation of other applicable non-elevation design requirements of 44 CFR 60.3.

“Manufactured home” means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required

utilities. The term manufactured home does not include recreational vehicles.

...
 “New construction” means structures for which the start of construction commenced on or after the effective date of a floodplain regulation adopted by a community and includes any subsequent improvements to such structures.

“New manufactured home park or subdivision” means a manufactured home, park, or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of the floodplain management regulations adopted by a community.

...
 “Start of construction” (for other than new construction or substantial improvements under the Coastal Barrier Resources Act (P.L. 97-348)) includes substantial improvements and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of a slab or footings, the installation of pilings, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearings, grading, and filling, nor does it include the installation of streets and/or sidewalks; 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. 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.

...
 “Substantial damage” means damage of any origin sustained by a structure, such that the cost of restoring the structure to its condition before damage would equal or exceed 50 percent of the market value of the structure before the damage occurred.

“Substantial improvement” means 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 that have incurred substantial damage, regardless of the actual repair work performed. The term does not, however, include either:

1. Any project for improvement of a structure to correct existing violations of State or local health, sanitary, or safety code specifications that have been identified by the local code enforcement officer and that are the minimum necessary to assure safe living conditions; or

2. (No change.)

“Variance” means a grant of relief from the requirements of this subchapter, that permits construction in a manner that would otherwise be prohibited by this subchapter.

“Violation” means the failure of a structure or other development to be fully compliant with this subchapter. A new or substantially improved structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in 44 CFR 60.3(b)(5), (c)(4), (c)(10), (e)(2), (e)(4), or (e)(5) is presumed to be in violation, until such time as that documentation is provided.

19:4-9.4 Lands to which this subchapter applies

This subchapter shall apply to all areas of special flood hazards within the boundaries of the District (NFIP community number 340570).

19:4-9.5 Basis for establishing the areas of special flood hazard

The areas of special flood hazard identified by the FIA in a scientific and engineering report entitled, “Flood Insurance Study, Bergen County, New Jersey, All jurisdictions,” dated August 28, 2019, with accompanying FIRM, Panel numbers *[0245J, 0252J, 0253J, 0254J, 0256J, 0257J, 0258J, 0259J, 0261J, 0262J, 0263J, 0264J, 0266J, 0267J,

0268J, 0307J, 0331J, and 0332J]* *0245H, 0252H, 0253H, 0254H, 0256H, 0257H, 0258H, 0259H, 0261H, 0262H, 0263H, 0264H, 0266H, 0267H, 0268H, 0307H, 0331H, and 0332H*, is incorporated herein by reference, as amended and supplemented, and declared to be a part of this chapter. The effective date of the floodplain management regulations is August 28, 2019. The Flood Insurance Study and FIRM mapping are on file at the Offices of the New Jersey Sports and Exposition Authority, One DeKorte Park Plaza, Lyndhurst, New Jersey 07071.

19:4-9.6 Fees

(a) Any requests for flood hazard certification or variances and appeals shall be submitted to the NJSEA and accompanied by such fee as set forth in N.J.A.C. 19:4-11.2.

(b) Any requests for copies of the regulations, study, or maps submitted to the NJSEA shall be accompanied by a copying fee as specified in N.J.S.A. 46:1A-1 et seq.

19:4-9.8 Other permits

No building permit, zoning certificate, occupancy certification, subdivision plat approval, or implementation plan approval shall be issued by any official or agency of the NJSEA on any land, or portion thereof, that is within an area of special flood hazard until there has been compliance with this subchapter. Any approvals issued in conflict with this subchapter shall be null and void.

19:4-9.9 Abrogation and greater restrictions

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

19:4-9.9A Interpretation

Interpretation of this subchapter shall be in accordance with N.J.A.C. 19:4-2.1 and 4.12A.

19:4-9.10 Warning and disclaimer of liability

The degree of flood protection required by this subchapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This chapter does not imply that land outside the area of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of the NJSEA, any officer or employee thereof, or the FIA for any flood damages that result from reliance on this chapter or any administrative decision lawfully made thereunder.

19:4-9.11 Development permit

No structure or land shall be constructed, relocated, extended, converted, or altered, including placement of manufactured homes, after February 17, 2004, within any area of a special flood hazard established at N.J.A.C. 19:4-9.5, unless a zoning certificate, construction permit, occupancy certification, subdivision approval, sanitary landfill approval, or any other development permit approvals as required by P.L. 2015, c. 19 (N.J.S.A. 5:10A-1 et seq.) shall first have been obtained from the NJSEA certifying that the proposed construction, use, or development complies with this chapter, including, but not limited to, N.J.A.C. 19:4-4.4 and 9.20(b). In addition, the extent to which any watercourse is proposed to be altered or relocated as a result of proposed development shall be depicted on the site plan.

19:4-9.13 Duties and responsibilities of the Chief Engineer

(a) The Chief Engineer shall administer the provisions of this subchapter in the manner set forth in this section. In furtherance of such authority, the Chief Engineer shall undertake such actions as he or she deems appropriate, including, but not be limited to, the following:

1.-2. (No change.)

3. Review all development permits to determine if the proposed development adversely affects the flood carrying capacity of the area of special flood hazard.

i. If it is determined that there is no adverse effect, then the permit shall be granted, consistent with the provisions of this section.

ii. (No change.)

4. Review all development permits to determine if the proposed development is located in the floodway. If located in the floodway, assure that the encroachment provisions of N.J.A.C. 19:4-9.27(a)1 are met.

5. Maintain for public inspection, all records pertaining to development permits, including: obtaining and recording the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement; verifying and recording the actual elevation (in relation to mean sea level) and maintaining flood proofing certifications for all new or substantially improved flood proofed structures;

6. Notify adjacent municipalities and the New Jersey Department of Environmental Protection, Bureau of Flood Control and the Land Use Regulation Program prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the FIA; require that maintenance is provided within the altered or relocated portion of said watercourse, so that the flood carrying capacity is not diminished;

7. When base flood elevation data has not been provided in accordance with N.J.A.C. 19:4-9.5, Basis for establishing the areas of special flood hazard, the Chief Engineer shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a Federal, State, or other source, in order to administer N.J.A.C. 19:4-9; and

8. (No change in text.)

9. The Chief Engineer, in coordination with the municipal code enforcement official, shall perform substantial damage review as follows:

i. After an event resulting in building damage, assess the damage to structures due to flood and non-flood causes;

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

iii. Ensure that the substantial improvements meet the requirements of N.J.A.C. 19:4-9.20.

19:4-9.14 Variances from floodplain management regulations

(a) In cases in which there is exceptional hardship in carrying out the literal provision of this chapter, whether because of conflicting requirements or otherwise, the Board of Commissioners may authorize a variance from such provision. In passing upon requests for variances, the Board of Commissioners shall consider all technical evaluations; all relevant factors and standards specified in other sections of this chapter; and the following:

1.-7. (No change.)

8. The relationship of the proposed use to the comprehensive plan and floodplain management program of that area;

9.-11. (No change.)

(b) (No change.)

(c) Any appeal of a variance recommendation shall be in accordance with N.J.A.C. 19:4-4.19.

19:4-9.18 Appeals

An appeal from an adverse decision of the Board of Commissioners made pursuant to this subchapter may be made in accordance with the provisions of N.J.A.C. 19:4-4.19.

19:4-9.19 Scope

In all areas of special flood hazards, the standards in this subchapter and compliance with the applicable requirements of the New Jersey Uniform Construction Code (NJ UCC), N.J.A.C. 5:23, are required.

19:4-9.20 Buildings

(a) Residential construction:

1. New construction and substantial improvement of any residential structure located in an A or AE zone on the District's DFIRM shall have the lowest floor, including basement, together with the attendant utilities (including all electrical, heating, ventilating, air conditioning, and other service equipment) and sanitary facilities, elevated at or above the base flood elevation (published FIS/FIRM) plus one foot, the best available flood hazard data elevation plus one foot, or as required by the American Society of Civil Engineers (ASCE)/SEI 24-14, Flood Resistant Design and Construction, Table 2-1, incorporated herein by reference, as amended and supplemented, whichever is more restrictive. A copy of

ASCE/SEI 24-14 may be obtained from ASCE, 1801 Alexander Bell Drive, Reston, VA 20191 or online at www.asce.org.

2. New construction and substantial improvement of any residential structure located in an AO or AH zone on the District's DFIRM shall have the lowest floor, including basement, together with the attendant utilities (including all electrical, heating, ventilating, air conditioning, and other service equipment) and sanitary facilities, elevated one foot above the depth number specified in feet, above the highest adjacent grade (at least three feet if no depth number is specified).

3. Adequate drainage paths shall be provided around structures on slopes to guide floodwaters around and away from proposed structures.

(b) Non-residential construction:

1. New construction and substantial improvement of any commercial, industrial, or other non-residential structure located in an area of special flood hazard shall have the lowest floor, including basement, together with the attendant utilities and sanitary facilities, as well as all electrical, heating, ventilating, air conditioning, and other equipment, as follows:

i. When located within an A or AE zone on the District's DFIRM, elevated at or above the base flood elevation (published FIS/FIRM) plus one foot, the best available flood hazard data elevation plus one foot, or as required by ASCE/SEI 24-14, Flood Resistant Design and Construction, Table 2-1, whichever is more restrictive;

ii. When located within an AO or AH zone on the District's DFIRM, elevated above the depth number specified in feet plus one foot, above the highest adjacent grade (at least three feet if no depth number is specified); or

iii. Adequate drainage paths shall be provided around structures on slopes to guide floodwaters around and away from proposed structures;

2. Non-residential construction deemed to be a non-substantial improvement of any commercial, industrial, or other non-residential structure located in an area of special flood hazard, together with the attendant utilities and sanitary facilities, as well as all electrical, heating, ventilating, air conditioning, and other equipment, may:

i. Be floodproofed, so that below the elevation equal to the base flood elevation (published FIS/FIRM) plus one foot, the best available flood hazard data elevation plus one foot, or as required by ASCE/SEI 24-14, Table 6-1, whichever is more restrictive, the structure is water tight with walls substantially impermeable to the passage of water;

ii. (No change in text.)

iii. Be certified by a licensed professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting the applicable provisions of this subsection. Such certification shall be provided to the Chief Engineer.

(c) (No change.)

(d) All manufactured homes to be placed or substantially improved within an area of special flood hazard shall:

1. Be consistent with the need to minimize flood damage;

2. Be constructed to minimize flood damage;

3. Have adequate drainage provided to reduce exposure to flood damage; and

4. Be elevated on a permanent foundation, such that the top of the lowest floor is elevated to a minimum of one foot above the base flood elevation (published FIS/FIRM), the best available flood hazard data elevation plus one foot, or as required by ASCE/SEI 24-14, Table 2-1, whichever is more restrictive; and

5. The manufactured home chassis shall be supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and shall be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

19:4-9.22 Subdivision proposals

(a) All subdivision proposals and other proposed new development shall be consistent with the need to minimize flood damage.

(b) All subdivision proposals and other proposed new development shall have public utilities and facilities, such as sewer, gas, electric, and water systems located and constructed to minimize flood damage.

(c) All subdivision proposals and other proposed new development shall have adequate drainage provided to reduce exposure to flood damage.

(d) Base flood elevation data shall be provided for subdivision proposals and other proposed new development that contain at least three lots or three acres (whichever is less).

19:4-9.23 Anchoring

(a) (No change.)

(b) All manufactured homes to be placed or substantially improved shall be anchored to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not to be limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable State and local anchoring requirements for resisting wind forces.

19:4-9.25 Utilities

(a)-(c) (No change.)

(d) For all new construction and substantial improvements, the electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities shall be designed and/or located, so as to prevent water from entering or accumulating within the components during conditions of flooding.

19:4-9.26 Enclosure openings

(a) All new construction and substantial improvements having fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a licensed professional engineer or registered architect or must meet or exceed the following minimum criteria:

1. A minimum of two openings in at least two exterior walls of each enclosed area having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided;

2.-3. (No change.)

19:4-9.27 Floodways

(a) Areas designated as floodways are located within certain areas of special flood hazard. Since the floodway is an extremely hazardous area due to the velocity of flood waters that carry debris, potential projectiles, and erosion potential, the following provisions apply:

1. Encroachments in floodways, including new fill, new construction, substantial improvements, and other development, are prohibited, unless a technical evaluation demonstrates that encroachment shall not result in any increase in flood levels during the occurrence of the base flood discharge.

2. If (a)1 above is satisfied, all new construction and substantial improvements shall comply with this subchapter.

3. In all areas of special flood hazard in which base flood elevation data has been provided and a floodway has been designated, the cumulative effect of any proposed development, when combined with all other existing and anticipated development, shall not increase the water surface elevation of the base flood more than two-tenths of a foot at any point.

19:4-9.28 Severability

If any section, subsection, paragraph, sentence, clause, or phrase of this subchapter is invalidated by judicial decision, or any reason whatsoever, such decision shall not affect the remaining subchapter, section, subsection, paragraph, sentence, clause, or phrase of this subchapter, which shall remain in full force and effect, and for this purpose, the provisions of this subchapter are hereby declared to be severable.