## **COMMUNITY AFFAIRS**

## **DIVISION OF CODES AND STANDARDS**

**Uniform Construction Code** 

**Flood-Resistant Construction** 

Adopted Amendments: N.J.A.C. 5:23-2.15 and 2.18

Adopted New Rule: N.J.A.C. 5:23-6.3A

Proposed: January 21, 2014, at 46 N.J.R. 160(a).

Adopted: May 23, 2014, by Richard E. Constable, III, Commissioner, Department of Community Affairs.

Filed: June 24, 2014, as R.2014 d.117, with technical changes not requiring additional public notice and comment (see N.J.A.C. 1:30-6.3).

Authority: N.J.S.A. 52:27D-124.

Effective Date: July 21, 2014.

Expiration Date: June 13, 2015.

**Summary** of Public Comments and Agency Responses:

Comments were received from: Douglas M. Tomson, Director of Government Affairs,
New Jersey Association of Realtors; Kenneth Rogers, Construction Official, Bedminster

Township; Michael G. McGuinness, Chief Executive Officer, NAIOP, New Jersey
Chapter; and John Ingargiola, Senior Engineer, Federal Emergency Management Agency,
Building Science Branch.

1. COMMENT: The goal of these proposed amendments, to ensure that buildings in New Jersey are built or rebuilt to withstand future storms, must be balanced with the potential economic costs.

RESPONSE: The Department agrees; however, as stated in the Economic Impact statement and Regulatory Flexibility Analysis accompanying the proposed amendments and new rule, these rules simply reflect the requirements of existing Federal law. As such, they impose no new or additional cost.

2. COMMENT: Because the amendments and new rule have been proposed at a time when there are numerous changes to the National Flood Insurance Program (NFIP) and flood maps in New Jersey, the possible impact on property owners in term of flood insurance rates and building requirements associated with this rule proposal may be unknown. For this reason, the commenter argues that the proposed rules should be delayed until the maps are finalized and any changes being made to the NFIP at the national level have been made.

RESPONSE: As stated above, the adopted amendments and new rule reflect the requirements of existing Federal law. While the eventual adoption of Flood Insurance Rate Maps or FIRMs will set boundaries and elevations, thus establishing the scope and applicability of the requirements for flood resistant construction, these rules contain administrative and technical requirements that are not altered by the adoption of the

FIRMs. These Federal requirements are already in place; there is no reason to defer referencing them. And in fact, it is better to make the applicable requirements as clear as possible as quickly as possible.

3. COMMENT: Flood resistant construction is an important issue to reduce flood damage and the resulting increases in insurance costs.

RESPONSE: The Department thanks the commenter for this expression of support.

4. COMMENT: The Economic Impact statement assumes that additional costs will not be incurred because this rule references the NFIP requirements. However, not all properties are subject to the NFIP requirements, and as such, these proposed amendments may add new costs for the owners of those properties who have to meet the new flood resistant construction requirements. Additionally, because the NFIP changes are currently being debated at the national level, these proposed amendments and new rule may lead to new costs of property owners in New Jersey because stricter standards would be in place than what would be required by the Federal government. The Economic Impact statement should be amended to reflect these costs.

RESPONSE: As stated above, because the adopted amendments and new rule reflect existing Federal requirements, there is no additional cost imposed. Where these requirements will apply is established by the Flood Insurance Rate Maps, which are not created or altered by this rulemaking.

5. COMMENT: The requirement proposed at N.J.A.C. 5:23-2.15(f)1ix(1) for an architect or engineer's seal on new construction or substantial improvement projects in a V zone should include floodways as well, and possibly all flood hazard areas. The vast

majority of homeowners in a floodplain do not understand the power of hydrostatic and hydrodynamic forces and would not be able to do the calculations and design to resist such forces.

RESPONSE: The proposed requirement is drawn from the NFIP rules. The Department lacks the statutory authority to expand the requirement for a licensed design professional beyond what is included in the Federal rules. Under New Jersey law, homeowners are permitted to prepare their own plans.

6. COMMENT: Proposed new rule N.J.A.C. 5:23-6.3A references substantial improvement of existing buildings. Under this proposed new rule, local floodplain administrators "will be responsible for determining whether work being done on a property will be deemed as a substantial improvement, and as such, have to meet new flood resistant construction requirements.....This rule change potentially gives great leeway to floodplain administrators who could require that flood resistant construction protocols be utilized even if this is not the case....This rule could lead to hundreds of different protocols being used across New Jersey."

RESPONSE: The determination as to whether work constitutes a substantial improvement must be made consistent with the National Flood Insurance Program rules. Additionally, FEMA has issued guidance to facilitate making this determination, including the "Substantial Improvement/Substantial Damage Desk Reference," FEMA publication P-758. The floodplain administrator currently is required to make that determination and this rulemaking does not in any way impact that determination.

7. COMMENT: The rule should be amended to include a definition of "substantial improvement" to utilize the 50 percent threshold of a property's value.

RESPONSE: The Department has repeated the definition of "substantial improvement" from the NFIP rules here for purposes of clarity.

8. COMMENT: The Department should clarify and define what constitutes a "substantial improvement." The costs of compliance and the issues of space constraints for existing buildings are significant.

RESPONSE: See the Response to Comment 7 above.

9. COMMENT: The proposed new rule at N.J.A.C. 5:23-6.3A should specifically mention substantial damage as well as substantial improvement. It is clearer to call out both substantial damage and substantial improvement even though the definition of substantial improvement includes substantial damage. The commenter suggests adding "or repair of substantial damage" following "substantial improvement" at N.J.A.C. 5:23-6.3A(a).

RESPONSE: Because the rehabilitation subcode of the Uniform Construction Code, N.J.A.C. 5:23-6, is triggered by the undertaking of a project in an existing building and not by damage to the existing building, and because, as the commenter correctly points out, "substantial damage" is subsumed in the definition of "substantial improvement," the Department has amended the rule upon adoption to include the definitions of "substantial improvement" and "substantial damage" for clarity. In this way, both terms have been incorporated into the adopted rule.

10. COMMENT: The proposed new rule lists the flood resistant construction requirements that would apply if a determination is made that the work constitutes substantial improvement. It is clear that the intent was to refer to all provisions that could apply; however, it appears that some section numbers were inadvertently omitted. The commenter suggests that the following be added: For Group R-5 buildings, International Residential Code sections R301.2.4, R406.1.2.1, R408.7, M1301.1.1, M1401.5, M1601.4.9, M1701.2, M2001.4, M2201.6 and G2404.7. For all other buildings, section 1804.4 of the International Building Code and sections M401.4 and M501.2 of the International Mechanical Code.

RESPONSE: The intent is to refer to all provisions for flood-resistant construction as the commenter states. With regard to Group R-5 buildings, the reference to Section R322, which is the general provision, encompasses virtually all of the other specific requirements for flood-resistant construction. However, the Department agrees that it may be clearer to list all of the subsection numbers. Accordingly, the additional subsection numbers have been added upon adoption. For all other buildings, likewise, the additional subsection numbers have been added to clarify that these are included. These additions do not change the technical requirements. As stated in the proposal and reiterated above, the underlying requirements are those of the National Flood Insurance Program rules which apply independent of these rules. (Note: Semicolons have been changed to commas throughout N.J.A.C. 5:23-6.3A(a)2 for the sake of consistency.)

11. COMMENT: An additional proposal should be made to address the qualifications of local floodplain administrators. Currently, the only requirement is that the floodplain administrator is appointed by the local governmental agency. The floodplain

administrator should be a required position and the individual should be required to have some knowledge of the FEMA regulations, building codes and some training on how to determine substantial damage or substantial improvement. This could be accomplished by requiring that individuals be Certified Floodplain Managers or through some other means to achieve the same level of competency.

RESPONSE: While this suggestion has merit, it falls outside the scope of the proposed amendments and new rule and outside the authority of the Department of Community Affairs.

12. COMMENT: One commenter asked that the Department clarify who is a floodplain administrator and the process for making a determination of substantial damage.

RESPONSE: With regard to the process for making a determination of substantial damage, please see the Response to Comment 6 above. The floodplain administrator is the local official tasked with enforcement of the flood ordinances in municipalities participating in the National Flood Insurance Program.

13. COMMENT: One commenter asked what is required if a renovation is deemed a "substantial improvement."

RESPONSE: In accordance with the NFIP rules, if a renovation is deemed a "substantial improvement," the building must comply with the requirements for flood resistant construction.

**Summary** of Agency-Initiated Changes:

At N.J.A.C. 5:23-2.15(f)1ix(1), the exception is narrowed to reference and to reflect more accurately the Federal requirement. Pursuant to the NFIP rules found at 44 CFR 60.3, it is the structural design, specifications, and plans for which a design professional is required.

At N.J.A.C. 5:23-2.18(b)1ii(2), the language is modified to clarify that it is the work and not the building that is determined to be a substantial improvement.

## **Federal Standards Statement**

The adopted amendments and new rule are consistent with, and do not exceed, flood protection standards established by the Federal Emergency Management Agency under the National Flood Insurance Program rules, 44 CFR 59 and 60.

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

5:23-2.15 Construction permits—application

- (a) (e) (No change.)
- (f) Plans, plan review, plan release:
- 1. Plans and specifications: The application for the permit shall be accompanied by no fewer than two copies of specifications and of plans drawn to scale, with sufficient clarity and detail dimensions to show the nature and character of the work to be performed. Plans submitted shall be required to show only such detail and include only such information as shall be necessary to demonstrate compliance with the requirements of the code and these regulations or to facilitate inspections for code conformity. When

quality of materials is essential for conformity to the regulations, specific information shall be given to establish such quality; and this code shall not be cited, or the term "legal" or its equivalent be used, as a substitute for specific information.

i. – viii. (No change.)

ix. Architect's or engineer's seal: The seal and signature of the registered architect or licensed engineer who prepared the plans shall be affixed to each sheet of each copy of the plans submitted and on the first or title sheet of the specifications and any additional supportive information submitted.

(1) Exception: The construction official shall waive the requirement for sealed plans in the case of a single family home owner who had prepared his or her own plans for the construction, addition, reconstruction, alteration, renovation, or repair of a detached structure used or intended to be used exclusively as his or her private residence providing that the owner shall submit an affidavit attesting to the fact that he or she has personally prepared the plans and provided further that said plans are in the opinion of the construction official, and appropriate subcode official, legible and complete for purposes of ensuring compliance with the regulations. This exception shall not apply to \*the structural design, specifications, and plans for\* new construction or substantial improvement of a home in a V zone in a flood hazard area\*, which must be developed or reviewed by a registered architect or licensed engineer pursuant to the National Flood Insurance Program rules, 44 CFR 60.3\*.

x.-xii. (No change.)

2. - 4. (No change.)

- (a) (No change.)
- (b) Inspections during the progress of work: The construction official and appropriate subcode officials shall carry out periodic inspections during the progress of work to ensure that work inspected conforms to the requirements of the code.
- 1. Inspections of one- and two-family dwellings for which construction must cease until the inspection is made shall be limited to the following:
  - i. (No change.)
- ii. Foundations and all walls up to grade level prior to covering or back filling;
  - (1) (No change.)
- (2) For new construction, additions, and \*[buildings that are]\*

  \*work that is\* determined to be a substantial improvement pursuant to N.J.A.C. 5:236.3A, the foundation location survey, including the lowest floor elevation and as-built elevation documentation, for a building that is located in a flood hazard area shall be submitted to the construction official and to the local floodplain administrator and shall include elevation certificates as required by section 1612.5 of the building subcode or section R322.1.10 of the one-and two-family dwelling subcode; the documentation and certificates shall be submitted prior to further vertical construction;

iii. – iv. (No change.)

2. - 4. (No change.)

(c) - (h) (No change.)

5:23-6.3A Flood-resistant construction

(a) For buildings in designated flood hazard areas, any work that constitutes a substantial improvement \*or repair of substantial damage\* of the existing building, as determined by the local floodplain administrator, shall comply with the applicable flood-resistant construction requirements below\*[:]\*\*. As defined in the National Flood Insurance Program rules, 44 CFR 59.1, "'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 which have incurred 'substantial damage,' regardless of the actual repair work performed." As defined in these Federal rules, "'substantial damage' means 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."\*

1. Group R-5 buildings: Section\*s **R301.2.4**,\* R322\*, **R406.1.2.1**, **R408.7**, **M1301.1.1**, **M1401.5**, **M1601.4.9**, **M1701.2**, **M2001.4**, **M2201.6**, and **G2404.7**\* of the one- and two-family dwelling subcode.

2. All other buildings:

i. Building subcode: Sections 801.5\*[;]\*\*,\* 1203.3.2, Exception 5\*[;]\*\*,\* 1403.5\*[;]\*\*,\*1403.6\*[;]\*\*,\*1603.1.7\*[;]\*\*,\* 1605.2.2\*[;]\*\*,\*1605.3.1.2\*[;]\*\*,\*1612\*[;]\*\*, 1804.4,\* and 1805.1.2.1.

ii. Mechanical subcode: Sections 301.13, \***401.4, 501.2,**\* 602.4, 603.13, 1206.9.1, and 1305.2.1.

iii. (No change from proposal.)