N.J.A.C. 5:23-3.14 Building subcode

- (a) Rules concerning the building subcode are as follows:
- 1. Pursuant to authority of P.L. 1975, c.217, as modified by P.L. 1996, c.53, the Commissioner hereby adopts the model code of the International Code Council, International Building Code, known as the "IBC/2000." This code is hereby adopted by reference as the building subcode for New Jersey subject to the modifications stated in (b) below.
- i. Copies of this code may be obtained from the International Code Council at 4051 West Flossmoor Road, Country Club Hills, Illinois 60478-5795.
 - ii. The IBC/2000, as amended, may be known and cited as the "building subcode."
- 2. Any references to the mechanical code, plumbing code, International Residential Code, ICC A117.1 standard (including reference to Chapter 11) or the ICC Electrical Code listed in Chapter 35 shall be considered a reference to the appropriate adopted mechanical, plumbing, one- and two-family dwelling or electrical subcode referenced in N.J.A.C. 5:23-3 or to the barrier free subcode, N.J.A.C. 5:23-7, as appropriate.
- (b) The following chapters of the Building Subcode are modified as follows:
- 1. Chapter 1, Administration, shall be deleted in its entirety. In addition, any referenced section of Chapter 1 shall be deleted throughout the code and "the administrative provisions of the Uniform Construction Code (N.J.A.C. 5:23)" shall be inserted.
 - 2. Chapter 2, Definitions, shall be amended as follows:
 - i. The definition of "addition," shall be deleted.
- ii. In the definition of agricultural buildings, "A structure qualifying under the Uniform Construction Code definition of a Commercial Farm Building may be built according to the regulations at N.J.A.C. 5:23-3.2(d)" shall be inserted after the last sentence.
 - iii. The definition of "alteration" shall be deleted.
- iv. The definition of "building" shall be deleted and the following shall be inserted: "BUILDING. A structure enclosed with exterior walls or fire walls, built, erected and framed of component structural parts, designed for the housing shelter, enclosure and support of individuals, animals or property of any kind. When used herein, building and structure shall be interchangeable except where the context clearly indicates otherwise."
 - v. The definition of "building line" shall be deleted.
- vi. The definition of "building official" shall be deleted and the following shall be inserted: "BUILDING SUBCODE OFFICIAL. A qualified person appointed by the municipal appointing authority or the commissioner pursuant to the act and the regulations to enforce the provisions of the building subcode within the jurisdiction of the enforcing agency."
- vii. The definitions of "existing structure," "historic building," and "jurisdiction" shall be deleted.
 - viii. A definition of "nightclub" shall be inserted as follows:
- "NIGHTCLUB. All buildings and places of public assembly designed for use as dance halls, eating and/or drinking establishments, and similar occupancies, in which the established maximum permitted occupant load exceeds the number of seats provided by more than 30 percent or which, affords less than 12 square feet net area per occupant. For purposes of determining the net area per occupant, only the actual public assembly room or rooms shall be considered. For purposes of applying the requirements of this code, the nightclub shall include

all rooms, lobbies and other spaces connected thereto with a common means of egress and entrance."

- ix. The definition of "owner" shall be deleted and the following shall be inserted: "OWNER. The owner or owners in fee of the property of a lesser estate therein, a mortgagee or vendee in possession, an assignee of rents, receiver, executor, trustee, lessee or any other person, firm or corporation, directly or indirectly in control of a building, structure or real property and shall include any subdivision thereof of the State."
 - x. The definitions of "permit," "person," and "repair" shall be deleted.
- xi. The definition of "structure" shall be deleted and the following shall be inserted: "STRUCTURE. A combination of materials to form a construction for occupancy, use, or ornamentation, whether installed on, above, or below the surface of a parcel of land; provided the word "structure" shall be construed when used herein as though followed by the phrase "or part or parts thereof and all equipment therein" unless the context clearly requires a different meaning.
 - 3. Chapter 3, Use and Occupancy Classification, shall be amended as follows:
- i. In Section 302.3.3, Separated uses, the first sentence of Exception 2 shall be deleted and the following shall be inserted: "A private garage located beneath a room(s) shall have walls, partitions, floors, and ceilings separating the garage from the adjacent interior spaces constructed with not less than a one-hour fire resistance rating. Attached private garages shall be completely separated from the adjacent interior spaces and the attic area by a means of 1/2-inch gypsum board or equivalent applied to the garage side."
- ii. In Table 302.3.3, Required Separation of Occupancies (Hours)[a], Use Group U shall be deleted.
- iii. In Section 303.1, Delete "Dance halls" from Group A-3 and insert "Dance halls" into Group A-2.
- iv. Section 308.2, Group I-1, shall be amended as follows: In the first sentence, "16" shall be deleted and "5" shall be inserted. In the second sentence, "responding to" shall be deleted and "slow evacuation as defined in Section 22-1.3 of NFPA 101-97, referenced in Chapter 35, in" shall be inserted. In the third sentence, "residential board and care facilities, assisted living facilities" shall be deleted and "boarding houses" shall be inserted. In the same sentence, "abuse" shall be inserted after "drug." Also, "A facility such as above, housing at least six and not more than 16 persons shall be classified as a Group R-4" shall be deleted and the following definition of "boarding house" shall be inserted:

"Boarding House: A building arranged or used for single occupancy where meals or personal or financial services are provided to the residents."

- v. In Section 308.3, Group I-2, "who are not capable of self-preservation" shall be deleted and "where evacuation is impractical as defined in Section 22-1.3 of NFPA 101-97, referenced in Chapter 35" shall be inserted. In the second sentence, a comma shall be inserted after "to" and "assisted living facilities" shall be inserted before "mental hospitals."
- vi. In Section 308.5, Group I-4, in the second sentence, "with" shall be deleted and "accessory to a dwelling unit and having" shall be inserted.
- vii. In Section 308.5.1, Adult Care Facility, "accommodations for less than 24 hours for more than five unrelated adults and provides" shall be deleted, "services" shall be deleted after "care," and the following shall be inserted: "on less than a 24-hour basis where evacuation is slow or impractical as defined in Section 22-1.3 of NFPA 101-97, referenced in Chapter 35, shall

be classified as Group I-4. Where evacuation is prompt, the facility shall be classified as Group A-3."

viii. Section 308.5.2, Child Care Facility, shall be deleted and the following shall be inserted: "A facility that provides supervision and personal care on less than a 24-hour basis for children 2 1/2 years of age or less shall be classified as Group I-4." In the same section, the exception shall be deleted.

ix. Section 310, Residential Group R, shall be deleted and the following definitions shall be inserted:

"(1) R-1 Residential occupancies where the occupants are primarily transient (less than 30 days) including:

Hotels (including motels) having transient occupancy

Rooming houses, with more than five residents, having transient occupancy

(2) R-2 Residential occupancies containing more than two dwelling units where the occupants are primarily permanent in nature, including:

Apartment houses

Convents

Dormitories

Fraternity and sorority houses

Monasteries

Rooming houses with more than five residents, not having transient occupancy Therapeutic residences with more than 16 residents

(3) R-3 Detached one- and two-family dwellings greater than three stories in height, multiple single-family townhouses greater than three stories in height, attached two-family dwellings separated from adjacent units by firewalls, and other one- and two-family dwellings that are outside the scope of the one- and two-family dwelling subcode. Group R-3 includes:

Single residential occupancies, accessory to a dwelling unit, having no more than five roomers or lodgers (Single occupancies, accessory to a dwelling unit, having more than five roomers or lodgers shall be classified as Group R-2 or I-1, as appropriate.)

Adult and child day care facilities, accessory to a dwelling unit, serving five or fewer persons of any age for less than 24 hours.

Rooming houses with five or fewer residents.

Therapeutic residences with five or fewer residents.

(4) R-4 Therapeutic residences including more than five but not more than 16 occupants, excluding staff, capable of prompt evacuation as defined by Section 22-1.3 of NFPA 101-97, referenced in Chapter 35.

Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3 except as otherwise provided in the code.

(5) R-5 Detached one- and two-family dwellings not more than three stories in height and multiple single-family townhouses not more than three stories in height designed and constructed in accordance with the one- and two-family dwelling subcode. Group R-5 also includes:

Single residential occupancies, accessory to a dwelling unit, having no more than five roomers or lodgers (Single occupancies, accessory to a dwelling unit, having more than five roomers or lodgers shall be classified as Group R-2 or I-1, as appropriate.)

Adult and child day care facilities, accessory to a dwelling unit, serving five or fewer persons of any age for less than 24 hours.

Rooming houses with five or fewer residents.

Therapeutic residences with five or fewer residents."

- 4. Section 310.2, Definitions, shall be amended as follows:
 - i. The definition of "Boarding House" shall be deleted in its entirety.
- ii. In the first sentence of the definition of "Dwelling Unit," "living as a single housekeeping unit" shall be inserted after "persons" and before "including."
 - iii. The definition of "Personal Care Service" shall be deleted in its entirety.
- iv. The definition of "Residential Care/Assisted Living Facilities" shall be deleted in its entirety.
- v. The definition of "Rooming House" shall be inserted as follows: "Rooming House: A building arranged or used for single occupancy where no meals or personal or financial services are provided to the residents."
- vi. The definition of "Single Residential Occupancy" shall be inserted as follows: "Single Residential Occupancy: A building arranged or used for individual residency by persons living independently of one another, regardless of whether the residents share the use of common facilities, such as kitchen or bathing facilities."
- vii. The definition of "Therapeutic Residence" shall be inserted as follows: "Therapeutic Residence: A residence for adults, each of whom is capable of prompt evacuation as defined by Section 22-1.3 of NFPA 101-97, referenced in Chapter 35, and who live within a single dwelling unit for therapeutic purposes, without a resident landlord or operator, but with some government or private social service provider oversight."
- viii. The definition of "Transient Occupancy" shall be inserted as follows: "Transient Occupancy: A residential occupancy where no more than fifteen percent of the residents occupy the residency for more than 90 days."
- 5. Chapter 4, Special Detailed Requirements Based on Use and Occupancy, shall be amended as follows:
 - i. In Section 402.4.2, Number of Means of Egress, "used by persons other than employees" shall be deleted. ii. In Section 411.4, Automatic sprinklers, the exception shall be deleted in its entirety.
 - 6. Chapter 5, General Building Heights and Areas, shall be amended as follows:
 - i. Table 503, Allowable Heights and Building Areas, shall be amended as follows:
 - (1) Under construction Type VA for Group A-1, "2" shall be deleted and "1" shall be inserted.
- (2) Under construction Type IB for Group A-2, "11" shall be deleted and "3" shall be inserted. Under construction Types IIA and IIB for Group A-2, "3" and "2" shall be deleted and "2" and "1" shall be inserted, respectively. Under construction Types IIIA and IIIB for Group A-2, "3" and "2" shall be deleted and "2" and "1" shall be inserted, respectively. In addition, under construction Type IV for Group A-2, "3" shall be deleted and "2" shall be inserted. Finally, under construction Type VA for Group A-2, "2" shall be deleted and "1" shall be inserted.
- (3) Under construction Type IB for Group A-3, "11" shall be deleted and "5" shall be inserted. In addition, under construction Type VA for Group A-3, "2" shall be deleted and "1" shall be inserted.

- (4) Under construction Type IB for Group A-4, "11" shall be deleted and "5" shall be inserted. In addition, under construction Type VA for Group A-4, "2" shall be deleted and "1" shall be inserted.
- (5) The maximum number of stories and maximum allowable area for Group A-5, construction Types IIIB, IV, VA and VB shall be deleted.
- (6) Under construction Type IB for Group B, "11" shall be deleted and "7" shall be inserted. In addition, under construction Type IIB for Group B, "4" shall be deleted and "3" shall be inserted. Finally, under construction Type IIIA and IIIB for Group B, "5" and "4" shall be deleted and "4" and "3" shall be inserted, respectively.
- (7) Under construction Type IB for Group F-1, "11" shall be deleted and "6" shall be inserted.
- (8) Under construction Type IB for Group F-2, "11" shall be deleted and "7" shall be inserted.
- (9) The maximum number of stories and maximum allowable area for Group H-2, construction Type VB shall be deleted and "NP" shall be inserted.
- (10) Under construction Type IIIA for Group H-3, "4" shall be deleted and "3" shall be inserted.
- (11) Under construction Type IIIA for Group H-4, "5" shall be deleted and "4" shall be inserted.
- (12) The maximum number of stories and the maximum allowable area for Group I-3, construction Type VB shall be deleted and "NP" shall be inserted.
- (13) Under construction Type IB for Group M, "11" shall be deleted and "6" shall be inserted. Under construction Type IIB for Group M, "4" shall be deleted and "2" shall be inserted. In addition, under construction Types IIIA and IIIB, "4" shall be deleted and "3" and "2" shall be inserted, respectively. Finally, under construction Type VA, "3" shall be deleted and "2" shall be inserted.
- (14) Under construction Type IB for Group R-1, "11" shall be deleted and "9" shall be inserted. In addition, under construction Type IIB for Group R-1, "4" shall be deleted and "3" shall be inserted. Finally, under construction Type IIIB for Group R-1, "4" shall be deleted and "3" shall be inserted.
- (15) Under construction Type IB for Group R-2, "11" shall be deleted and "9" shall be inserted. In addition, under construction Type IIB for R-2, "4" shall be deleted and "3" shall be inserted. Finally, under construction Type IIIB for Group R-2, "4" shall be deleted and "3" shall be inserted.
- (16) Under construction Type IB for Group R-3, "11" shall be deleted and "4" shall be inserted. Under construction Type IIB for Group R-3, "4" shall be deleted and "3" shall be inserted. In addition, under construction Type IIIB for Group R-3, "4" shall be deleted and "3" shall be inserted. Finally, under construction Type VB for Group R-3, "3" shall be deleted and "2" shall be inserted.
- (17) Under construction Type IB for Group R-4, "11" shall be deleted and "4" shall be inserted. Under construction Type IIB for Group R-4, "4" shall be deleted and "3" shall be inserted. In addition, under construction Type IIIB for Group R-4, "4" shall be deleted and "3" shall be inserted. Finally, under construction Type VB for Group R-4, "3" shall be deleted and "2" shall be inserted.
- (18) Under construction Type IB for Group S-1, "11" shall be deleted and "5" shall be inserted. Under construction Type IIB for Group S-1, "3" shall be deleted and "2" shall be

inserted. In addition, under construction Type IIIB for Group S-1, "3" shall be deleted and "2" shall be inserted. Finally, under construction Type VA for Group S-1, "3" shall be deleted and "2" shall be inserted.

- (19) Under construction Type IB for Group S-2, "11" shall be deleted and "7" shall be inserted. Under construction Type IIB for Group S-2, "4" shall be deleted and "3" shall be inserted. In addition, under construction Type IIIB for Group S-2, "4" shall be deleted and "3" shall be inserted. Finally, under construction Type VA for Group S-2, "4" shall be deleted and "3" shall be inserted.
 - (20) Use Group U shall be deleted.
- (21) At the end of the table, after "UL = Unlimited," "NP = Not permitted" shall be inserted.
 - ii. Section 507.1, Unsprinklered, one story, shall be deleted in its entirety.
- iii. Section 507.3, Two-story, shall be amended as follows: In the first sentence, "building of Type I or Type II construction under " shall be inserted after "two-story."
 - 7. Chapter 6, Types of Construction, shall be amended as follows:
- i. In Table 602, Fire Resistance Rating Requirements for Exterior Walls Based on Fire Separation Distance[a], "U" shall be deleted from the heading of the fifth column. In addition, in the same table, at Note b, "and Group U when used as an accessory to Group R3" shall be deleted.
 - ii. In Section 602.3, Type III, the last sentence shall be deleted.
 - 8. Chapter 7, Fire-Resistance-Rated Construction, shall be amended as follows:
- i. In Table 705.4, Fire Wall Fire Resistance Ratings, under the heading "Group," "U" shall be deleted.
- ii. Section 705.5, Horizontal continuity, shall be deleted in its entirety. Section 707.6 of the 1996 BOCA National Building Code shall be inserted as follows: "Horizontal Continuity. Firewalls shall be made smoke tight at the junction of exterior walls. In exterior wall construction employing studs, the wall shall extend through the stud space to the exterior sheathing."
- iii. Section 707.14.1, Elevator lobby, shall be amended as follows: In the first sentence, "In buildings having occupied floors greater than 75 feet above the lowest level of fire department vehicle access" shall be inserted before "elevators." In the same section, Exception 4 shall be deleted in its entirety.
 - 9. Chapter 9, Fire Protection Systems, shall be amended as follows:
- i. Section 903.2.1.2., Group A-2, shall be amended to add a new section 903.2.1.2.1 as follows: "903.2.1.2.1 In Group A-2 Nightclubs, the automatic sprinkler system shall be tied to the performance sound system and to the house lights in such a way that activation of the automatic sprinkler system mutes the performance sound system and restores the intensity of illumination to that required by 1003.2.11.1."
- ii. In Section 903.2.5, Group I, the exception shall be deleted and the following shall be inserted:"Exceptions
 - 1. An automatic fire sprinkler system installed in accordance with Section 903.3.1.2. shall be allowed in Group I-1 facilities.
 - 2. For other than buildings of construction Types IIIB or VB, an automatic fire sprinkler system shall not be required for Group I-4 child care facilities that are located at the level of exit discharge and that accommodate 100 or fewer children and in which each child care room has an exit door directly to the exterior."

iii. Section 903.2.8, Group R-2, shall be deleted in its entirety. Section 904.9 of the 1996 BOCA National Building Code shall be inserted as follows: "Group R-2: An automatic fire sprinkler system shall be provided throughout all buildings with an occupancy in Group R-2 in accordance with Section 903.3.1.1 or 903.3.1.2:

Exception: Buildings that do not exceed two stories including basements, which are not considered a story above grade, and with a maximum of 12 dwelling units per fire area. Each dwelling unit shall have at least one door opening to an exterior exit access that leads directly to the exits required to serve the dwelling unit.

- iv. In Section 903.2.9, Group R-4, the reference to "Section 903.3.1.3" shall be deleted.
- v. Section 903.2.12.1, Stories and basements without openings, shall be deleted in its entirety and Section 904.10 of the 1996 BOCA National Building Code shall be inserted as follows: "Windowless story: An automatic fire sprinkler system shall be provided throughout every story or basement of all buildings where there is not provided at least one of the following types of openings:
 - 1. An exterior stairway that conforms to the requirements of Section 1005.3.6, or an outside ramp that conforms to the requirements of Section 1003.3.4, leading directly to grade in each 50 linear feet (15240 mm) or fraction thereof of exterior wall in the story or basement, on at least one side of the building.
 - 2. Openings entirely above the adjoining ground level totaling 20 square feet (1.9 m2) in each 50 linear feet (15240 mm) or fraction thereof of exterior wall in the story or basement, on at least one side of the building. Openings shall have a least dimension of not less than 22 inches (559 mm), and shall have a minimum net clear opening of 5 square feet (0.5 m2). Access to such openings from the exterior shall be provided to the fire department and such openings shall be unobstructed to allow fire fighting and rescue operations from the exterior.

Where openings in a story are provided on only one side and the opposite wall of such story is more than 75 feet (22860 mm) from such openings, the story shall be equipped throughout with an automatic fire sprinkler system or openings as specified herein shall be provided on at least two sides of the exterior walls of the story. If any portion of a basement is located more than 75 feet (22860 mm) from the openings required in this section, the basement shall be equipped throughout with an automatic sprinkler system.

Exception: Occupancies in Group R-3."

vi. New Section 903.2.16, Automatic sprinkler system thresholds, shall be inserted as follows: "An automatic sprinkler system shall be required in accordance with Section 903.3.1.1 when the maximum area is exceeded for the following construction types of Groups B, F-2, and S-2 according to table 903.2.16, Automatic Sprinkler System Thresholds. All others not listed shall follow the applicable requirements as set forth in the IBC/2000."

"Automatic Sprinkler System Thresholds

Group			
В			
	IIB	ШВ	VB
Story	Max. Area	Max. Area	Max. Area
1	36,000	*	*
2	72,000	*	*
	(36,000		
	per floor)		
3	99,360	99,360	*

Group			
В	ΙΙΒ	ШВ	VB
Story	Max. Area	Max. Area	Max. Area
	(36,000	(36,000	
	per floor)	per floor)	
Group			
F-2			
	ΙΙΒ	ШВ	VB
Story	Max. Area	Max. Area	Max. Area
1	36,000	*	18,000
2	72,000	*	36,000
	(36,000		(18,000
	Per floor)		Per floor)
3	99,360	*	*
	(36,000		
	per floor)		
Group			
S-2a			
	IIB	ШВ	VB
Story	Max. Area	Max. Area	Max. Area
1	36,000	36,000	18,000
2	72,000	72,000	36,000
	(36,000	(36,000	(18,000
	Per floor)	Per floor)	Per floor)
3	99,360	99,360	*
	(36,000	(36,000	
	per floor)	per floor)	

a. Exception--Open parking structures in accordance with Section 406.3

vii. Section 903.3.2, Quick response and residential sprinklers, shall be deleted in its entirety.

viii. Section 903.5, "Testing and Maintenance", shall be deleted and the following shall be inserted in its place: "903.5 Acceptance tests: All sprinkler systems with the exception of limited area sprinkler systems shall be tested in accordance with NFPA 13 listed in Chapter 35.

903.5.1 Flow test: All systems shall be tested at the test pipe to determine that water-flow detecting devices, including the associated alarm circuits, are in proper working order. Dry pipe systems shall deliver water to the inspector's test pipe in not more than 60 seconds.

903.5.2 Limited area sprinkler system acceptance test. All limited area sprinkler systems, which are not connected to a building standpipe system, shall be tested hydrostatically for a minimum of 15 minutes without visible leakage at the working pressure under which the system is to be used. Limited area sprinkler systems, which are connected to a building standpipe system, shall be tested in accordance with NFPA 13 listed in Chapter 35.

ix. In Section 905.2, Installation standards, Sections 915.4, 915.5, and 915.6 of the 1996 BOCA National Building Code shall be inserted as follows: "905.2.1 Piping design. The riser

^{*} Requirements as set forth in the IBC/2000"

piping, supply piping and the water service piping shall be sized to maintain a residual pressure of at least 65 psi (448 kPa) at the topmost outlet of each riser while flowing the minimum quantities of water specified in Sections 905.2.1.1 and 905.2.1.2. The pipe size shall be based on the capacity of the automatic water supply system or, where an automatic water supply is neither required nor provided to maintain the residual pressure of 65 psi (448 kPa), the pipe size shall be based on a pressure of 150 psi (1,034 kPa) available at the fire department connection.

Exception: The residual pressure of 65 psi (448 kPa) is not required in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and where the highest floor level is not more than 150 feet (45720 mm) above the lowest level of fire department vehicle access.

905.2.1.1 Riser sizing: The riser size shall be based on hydraulic calculations for a minimum flow of 500 gallons per minute (gpm) (1892 L/min.).

Exceptions:

- 1. Where only 1 1/2-inch valves are provided, the riser(s) shall be sized to provide a minimum flow of 100 gpm (378 L/min.).
- 2. In buildings where limited area sprinkler systems are supplied with water from a common standpipe riser, the riser shall be sized to satisfy total demand.
- 3. For occupancies in Group B, I, R-1 or R-2 in buildings that are equipped throughout with an automatic sprinkler system in accordance with Section 906.2.1, each riser shall be sized for a minimum flow of 250 gpm (945 L/min.).
- 4. Risers that are sized in accordance with the pipe schedule requirements of NFPA 14 listed in Chapter 35 are not subject to this requirement.
- 905.2.1.2 System pipe sizing: The system piping, including the horizontal or common feeder lines shall be sized for a minimum flow of 500 gpm (1,892 L/min.). Where more than one standpipe riser is required or provided, all common system piping shall be sized for a minimum flow of 500 gpm (1892 L/min.) for the first riser plus 250 gpm (945 L/min.) for each additional riser, and the total shall not be required to exceed 1,250 gpm (4731 L/min.).

Exceptions

- 1. Where only 1 1/2-inch valves are provided, the supply piping shall be sized for a minimum flow of 100 gpm (378 L/min.) for each riser, and the total shall not be required to exceed 500 gpm (1892 L/min.).
- 2. In buildings where limited area sprinkler systems are supplied with water from a common standpipe riser, the supply piping shall be sized for a minimum flow of 500 gpm (1892 L/min.) plus the sprinkler demand for the first riser, plus 250 gpm (945 L/min.) for each additional riser, and the total shall not be required to exceed 1,250 gpm (4731 L/min.).
- 3. For occupancies in Group B, I, R-1 or R-2 in buildings that are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, all common supply piping shall be sized for a minimum flow of 250 gpm (945 L/min.) for the first riser plus 250 gpm (945 L/min.) for each additional riser, and the total shall not be required to exceed 750 gpm (2838 L/min.).
- 905.2.2 Water supply: A water supply for fire department equipment shall be available to the building site. The water supply shall be capable of a minimum flow as required by Section 905.2.1.2 for a duration of 30 minutes.
- 905.2.2.1 Automatic water supply: An automatic water supply is required for all standpipe systems. The automatic water supply and supply piping shall be capable of

delivering a flow of 500 gpm (1892 L/min.) at the residual pressure specified in Section 905.2.1 for a duration of 30 minutes.

Exceptions

- 1. In buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 where the highest floor is located not more than 150 feet (45720 mm) above the lowest level of fire department vehicle access, the automatic water supply is not required to exceed the requirements of NFPA 13 listed in Chapter 35.
 - 2. Dry standpipe systems installed in open parking structures.
- 905.2.2.2 Interconnection: The required water supply shall be connected to the base of each standpipe riser. Where more than one standpipe riser is required, all risers shall be interconnected with a common supply line. An approved indicating valve shall be installed to permit individual risers to be taken out of service."
- 905.2.3 Control valves: Where a standpipe system riser also serves as the automatic sprinkler system riser in building required to have both systems or in buildings having both systems, sprinkler control valves shall be installed at each floor level at the connection to the riser.
- x. In Section 905.4, Location of class I standpipe hose connections, Items 1 and 2 shall be deleted in their entirety. Section 915.7 of the 1996 BOCA National Building Code shall be inserted as follows: "A standpipe hose connection shall be located at each floor level at every exit stairway, and on each side of the wall adjacent to the exit opening of a horizontal exit.

Exceptions

- 1. Where the floor areas adjacent to a horizontal exit are reachable from exit stairway outlets by a 30-foot (9,144 mm) hose stream from a nozzle attached to 100 feet (30,480 mm) of hose, a hose connection shall not be required at the horizontal exit.
- 2. Standpipe hose connections for systems required by Section 905.3.2. shall be permitted to be located only at exits such that all portions of the building floor area are not more than 200 feet (60,960 mm) from a hose connection or 200 feet (122 m) from the nearest point of fire department vehicle access."
- xi. Section 905.4.2, Interconnection, shall be deleted in its entirety and Section 915.7.1 of the 1996 BOCA National Building Code shall be inserted as follows "905.4.2 Location: At each floor level and not more than 5 feet (1,524 mm) above the floor, there shall be connected to each standpipe a 2 1/2 inch hose connection with valves and threads compatible with the connections used by the local fire department."
- xii. Section 906.0, Portable Fire Extinguishers, shall be deleted in its entirety and new Section 906.0, entitled "Fire Department Connections," from Section 916.0 of the 1996 BOCA National Building Code shall be inserted as follows: "906.1 Required: All required water fire-extinguishing and standpipe systems shall be provided with a fire department connection in accordance with the applicable standards. Standpipes in buildings under construction or demolition shall conform to Section 3311.

Exceptions

- 1. Limited area sprinkler systems supplied from the domestic water system.
- 2. Where the local fire department approves a single connection for a large diameter hose of at least four inches (102 mm).
 - 3. An automatic sprinkler system with less than 20 sprinklers.

906.2 Connections: Fire department connections shall be arranged in such a manner that the attachment to any one sprinkler connection will serve all sprinklers, and the attachment to any one standpipe connection will serve all standpipes within the building.

Exception: Fire protection systems in high rise buildings designed with a low zone and a high zone may be provided with a connection for each zone.

906.3 Location: Fire department connections shall be located and shall be visible on a street front or on a location approved by the fire department. Such connections shall be located so that immediate access is provided to the fire department. Fire department connections shall not be obstructed by fences, bushes, trees, walls, or any other similar object.

906.4 Height: Fire department connections shall not be less than 18 inches (457 mm) and more than 42 inches (1,067 mm) in elevation, measured from the ground level to the centerline of the inlets.

906.5 Projection: Where the fire department connection will otherwise project beyond the property line or into the public way, a flush-type fire department connection shall be provided.

906.6 Hose thread: Hose thread in the fire department connection shall be uniform with that used by the local fire department.

906.7 Fittings: Fire department inlet connection shall be fitted with check valves, ball drip valves and plugs with chains or frangible clips.

906.8 Signs: A metal sign with raised letters at least one inch (25 mm) in height shall be mounted on all fire department connections serving sprinklers or standpipes. Such signs shall read "Automatic Sprinklers" or "Standpipes," or both, as applicable."

xiii. Add new section 907.2.1.3 as follows:

"907.2.1.3 Group A-2 Nightclubs. An automatic fire detection system shall be installed throughout all Group A-2 nightclubs with an occupant load of 100 or more. If the alarm is activated by smoke detectors, it shall be activated by either two cross-zoned smoke detectors within a single protected area or a single smoke detector monitored by an alarm verification zone or an approved equivalent method and the smoke detectors shall be of a type designed to reduce the possibility of false notifications based on the conditions present in the area protected. The automatic fire detection system shall be tied to the performance sound system and to the house lights in such a way that activation of the fire detection system mutes the performance sound system and restores the intensity of illumination to that required by 1003.2.11.1.

Exception: Automatic fire detection systems are not required in buildings provided with an automatic sprinkler system throughout."

xiv. Sections 907.2.6 and 907.2.8 are amended as indicated at N.J.A.C. 5:23-3.17(a)1i(5).

xv. Section 907.2.10.1.4, Additions, alterations, or repairs to Group R, shall be deleted in its entirety.

xvi. In Section 907.2.10.3, Interconnection, Exception 2 shall be deleted in its entirety. xvii. In Section 909.18.8.3, Reports, "The report shall be reviewed by the registered design professional and, when satisfied that the design intent has been achieved, the responsible registered design professional shall seal, sign, and date the report" shall be deleted.

- 10. Chapter 10, Means of Egress, shall be amended as follows:
- i. In Section 1003.2.12.1, delete the exception and insert the following text: "For occupancies in Group R-3, and within individual dwelling units in occupancies in Group R-2,

porches, balconies or raised floor surfaces located more than 30 inches (762 mm) above the floor or grade below shall have guards not less than 36 inches (914 mm) in height. Open sides of stairs with a total rise of more than 30 inches (762 mm) above the floor or grade below shall have guards not less than 34 inches (864 mm) in height measured vertically from the nosing of the treads."

- ii. In Section 1003.2.12.2, at the end of the second sentence, insert the following text: "except for occupancies of Group R-3, and within individual dwelling units in occupancies of Group R-2."
- iii. In Section 1003.3.1.3.5, Security grilles, "In Groups B, F, M, and S" shall be deleted and "horizontal" shall be capitalized.
- iv. In Section 1003.3.1.4, in Exception 1, the text "more than three stories high" shall be deleted.
- v. Section 1003.3.1.8, Locks and latches, shall be amended as follows: In Exception 2, "Group A having an occupant load of 300 or less" shall be deleted. In the same section, Exception 5 shall be inserted as follows: "5. Key operation shall be permitted from a dwelling unit provided that the key cannot be removed from the lock when the door is locked from the side from which egress is made."
 - vi. In Section 1003.3.1.8.2, Delayed egress locks, "E" shall be deleted.
- vii. In Section 1003.3.3.3, Exception 5, change the maximum riser height from "7.75 inches (197 mm)" to "8.25 inches (210 mm)" and change the minimum tread depth from "10 inches (254 mm)" to "9 inches (229 mm)."
- viii. In Section 1003.3.3.7, delete the exception and insert the following text: "Exception: For occupancies in Group R-3, and within individual dwelling units in occupancies in Group R-2, circular stairways shall have a tread depth at a point not more than 12 inches (305 mm) from the side where the treads are narrower of not less than 11 inches (279 mm) and the minimum depth of any tread shall not be less than 9 inches (229 mm)."
- ix. In Section 1003.3.3.8, add the following text: "Exception: For occupancies of Group R-3, and within individual dwelling units of Group R-2, winders are permitted, provided that the width of the tread at a point not more than 12 inches (305 mm) from the side where the treads are narrower is not less than 9 inches (229 mm) and the minimum width of any tread is not less than 6 inches (152 mm). The continuous handrail required by Section 1003.3.3.11 shall be located on the side where the tread is narrower."
- x. In Section 1003.3.3.11, delete Exception 4, and insert the following text: "4. For occupancies of Group R-3, and within the individual dwelling units of Group R-2, handrails shall not be required for stairways with fewer than three risers."
- xi. In Section 1003.3.3.11.1 add the following text: "Exception: For occupancies of Group R-3, and within individual dwelling units in occupancies of Group R-2, handrails shall have a minimum height of 30 inches and a maximum height of 38 inches measured vertically from the nosing of the treads."
- xii. After Section 1003.3.3.11.3, add the following text: "Exception: For occupancies of Group R-3, and within individual dwelling units in occupancies of Group R-2, the handgrip portion of handrails shall have a maximum circular cross section of 2.625 inches (67 mm). Other handrail shapes that provide an equivalent grasping surface are permissible."
- xiii. In Section 1004.2.2.1, Two exit or exit access doorways, the last sentence of Exception 1 shall be deleted.
 - xiv. Section 1004.2.3, Egress through intervening spaces, shall be deleted in its entirety.

Section 1006.2.1 of the 1996 BOCA National Building Code shall be inserted as follows: "Egress through adjoining spaces: Egress from a room or a space shall not pass through adjoining or intervening rooms or areas, except where such adjoining rooms or areas are accessory to the area served; are not a high-hazard occupancy; and provide a discernable path of travel to an exit. A maximum of one exit access shall be permitted to pass through a kitchen, storeroom, restroom, closet or similar space provided that a passage through such space is not the only means of access to an exit. An exit access shall not pass through a room subject to locking. Means of egress from dwelling units or sleeping areas shall not lead through other dwelling units or sleeping areas and shall not lead through toilet rooms or bathrooms."

xv. In Section 1004.3.2, Corridors, "and passageways" shall be inserted after "corridors." xvi. In Table 1004.3.2.1, Corridor Fire Resistance Rating, under the heading "Occupancy," "U" shall be deleted from the third row.

xvii. In the title of Section 1004.3.2.2, "and passageway" shall be inserted after "Corridor." In addition, in the first sentence, "or passageway" shall be inserted after "corridor."

xviii. Section 1004.3.2.3, Dead ends, shall be amended as follows: In the first sentence "and passageways" shall be inserted after "corridors." In Exception 1, "or passageway" shall be inserted after "corridors." In Exception 2, "and passageways" shall be inserted after "corridors." In Exception 3, "or passageway" shall be inserted after each "corridor."

xix. In Table 1005.2.2, Buildings with One Exit, under the heading "Occupancy," "U" shall be deleted from the first row.

xx. In Section 1005.3.2, Vertical exit enclosures, Exception 1 shall be deleted and the following shall be inserted: "1. In other than Group H and I occupancies, a stairway connecting not more than two floor levels, one of which is the level of exit discharge, which serves an occupant load of not more than 10 or serves four or fewer dwelling units is not required to be enclosed." In the same section, Exception 8 shall be deleted.

xxi. Section 1005.3.5, Horizontal exits, shall be deleted in its entirety. Section 1019.0 of the 1996 BOCA National Building Code shall be inserted as follows: "Horizontal Exits

1005.3.5 General: Horizontal exits shall be accepted as an approved exit element of a required means of egress. The connection between an area of a building that the horizontal exit serves and the area of refuge as herein required shall be accomplished by protected openings in a fire-resistance rated wall, or by an open-air balcony or bridge.

1005.3.5.1 Separation: The separation between buildings or areas of refuge connected by a horizontal exit shall be provided by at least a two-hour fire-resistance rated firewall or fire separation assembly with approved opening protectives complying with Chapter 7 and Table 602.

1005.3.5.2 Doors: All doors shall swing in the direction of egress travel. Where the horizontal exit serves as an exit from both sides of the wall, there shall be adjacent openings with swinging fire doors opening in opposite directions.

Exception: Horizontal sliding doors complying with Section 1003.3.1.3.3.

1005.3.5.3 Area of refuge: The discharge area of a horizontal exit shall be either public areas or spaces occupied by the same tenant, and each such area of refuge shall be adequate to hold the total occupant load of both connected areas. The capacity of areas of refuge shall be computed on a minimum net floor area allowance for each occupant to be accommodated therein, not including areas of stairways, elevators and other shafts or courts, as follows:

1. 30 square feet (3 m²) per patient for hospitals and nursing homes.

- 2. Six square feet (0.56 m2) per occupant on stories not housing patients confined to a bed or litter in an occupancy in Group I-2.
 - 3. Six square feet (0.56 m2) per occupant in an occupancy in Group I-3.
 - 4. Three square feet (0.28 m2) in all other cases.
- 1005.3.5.4 Egress from area of refuge: The path of egress travel from the horizontal exit through the area of refuge to another exit shall be continuously available. In other than occupancies in Group I-3, there shall be at least one exit on each side of the horizontal exit, which is not a horizontal exit. Any area of refuge not having access to an exit, other than a horizontal exit, shall be considered as part of an adjoining area of refuge with such exit. In the area(s) served by the horizontal exit, the length of exit access travel distance to the horizontal exit or another exit shall not exceed the requirements of Section 1004.2.4."
- xxii. At Section 1008.1, entitled "Assembly main exit", add the text "other than nightclubs," after "Group A occupancies" at the beginning of the first sentence.
 - (1) In the exception, "other than nightclubs" add after "In assembly occupancies" at the beginning of the exception.

xxiii. Add new section 1008.1.1 as follows:

"1008.1.1 Group A-2 Nightclubs. Buildings or portions thereof of Group A-2 nightclubs with an occupant load of 100 or more shall have a main entrance capable of serving as the main exit with an egress capacity for at least one-half the total occupant load. The remaining exits shall be capable of providing two-thirds of the total required exit capacity. Buildings or portions thereof of Group A-2 nightclubs with an occupant load of more than 300 shall have a main entrance capable of serving as the main exit with an egress capacity for at least two-thirds of the total occupant load. The remaining exits shall also be capable of providing two-thirds of the total required exit capacity."

xxiv. Section 1009.1, General, shall be amended as follows: In the second sentence, "Basements and" shall be deleted and "sleeping" shall be capitalized.

- 11. Chapter 11, Accessibility, shall be deleted in its entirety.
- 12. Chapter 13, Energy Efficiency, shall be deleted in its entirety.
- 13. Chapter 15, Roof Assemblies and Rooftop Structures, shall be amended as follows:
- i. In Table 1505.1, Minimum Roof Covering Classification for Types of Construction, Note a shall be deleted in its entirety. In addition, at Note b, "and U occupancies" shall be deleted from the first sentence.
 - 14. Chapter 16, Structural Design, shall be amended as follows:
 - i. Section 1603.3, Live loads posted, shall be deleted in its entirety.
 - ii. Section 1603.4, Occupancy permits for changed loads, shall be deleted in its entirety.
- iii. New Section 1604.9, General structural integrity, from Section 1604.2 of the 1996 BOCA National Building Code, shall be inserted as follows: "The requirements for general structural integrity shall be in accordance with Section 1.4 of ASCE 7 listed in Chapter 35."
- iv. In Table 1607.1, Minimum Uniformly Distributed Live Loads and Minimum Concentrated Live Loads, at Note g, "building official" shall be deleted and "design professional" shall be inserted.
- v. Section 1607.9, Reduction in live loads, shall be amended as follows: In the first sentence, "and applied" shall be inserted after "reduced." After the first sentence, "The method chosen shall be applied throughout the building." shall be inserted.
- vi. In Section 1607.9.1.3, Special occupancies, "or educational occupancies" shall be inserted after "public assembly occupancies."

- vii. In Section 1607.9.2, Alternate floor live load reduction, Item 1, "or Group E" shall be inserted after "Group A."
 - viii. Section 1614.1.1, Addition to existing building, shall be deleted in its entirety.
 - ix. Section 1614.2, Change of Occupancy, shall be deleted in its entirety.
 - x. Section 1614.3, Alterations, shall be deleted in its entirety.
- xi. New Section 1607.14, entitled "Residential Attics with trusses," from Section 1606.2.3 of the 1996 BOCA National Building Code, shall be inserted as follows: "A storage live load shall be applied to those portions of the bottom chord of not less than two adjacent trusses with the same web configuration containing a rectangle 42 inches (1067 mm) high or greater by 2 feet (610 mm) wide or greater, located within the plane of the truss. The rectangle shall fit between the top of the bottom chord and the bottom of any other truss member, provided each of the following criteria are met:
- 1. The attic area is accessible by a permanent stairway, pull down stairway, or scuttle opening meeting the size requirement specifications of Section 1208.2, and
 - 2. The truss shall have a bottom chord pitch less than 2 in 12."
 - xii. In Section 1621.1.7, Component anchorage #1, Item 1 shall be deleted in its entirety. xiii. In Section 1621.1.7, Component anchorage #1, Item 1 shall be deleted in its entirety.
- xiv. In Table 1622.2.5(2), Importance Factor (*I*) and Seismic Use Group Classification for Nonbuilding Structures, at Notes H-II and H-III, "authority having jurisdiction" shall be deleted and "construction official" shall be inserted.
- 15. Chapter 17, Structural Tests and Special Inspections, shall be amended as follows:
 i. In Section 1701.1, Scope, "shall apply to Class I buildings and" shall be inserted after "chapter."
- ii. Section 1702.1, General, shall be amended as follows: In the title, "/Special Inspector" shall be inserted after "Agency." In the first sentence, "or design professional acting as the approved agency" shall be inserted after "agency."
- iii. Section 1703.1, Approved agency, shall be amended as follows: In the first sentence, "Upon the request of the construction official" shall be inserted before "An." In the same sentence, "building official" shall be deleted and "construction official" shall be inserted and "applicable" shall be deleted and "following" shall be inserted.
- iv. In Section 1703.7, Evaluation and follow-up inspection, "in accordance with N.J.A.C. 5:23-4.26" shall be inserted after the second "assembly."
- v. Section 1704.1, General, shall be amended as follows: In the first sentence, "of Class 1 buildings only" shall be inserted after "construction." In the second sentence, "the registered design professional" shall be deleted and "person" shall be inserted.
- vi. Section 1704.1.2, Report requirement, shall be amended as follows: In the second sentence, "building official" shall be deleted and "construction official" shall be inserted and "registered design professional" shall be deleted and "person" shall be inserted. In the same sentence, "in accordance with N.J.A.C 5:23-2.21(c)" shall be inserted after "charge."
- vii. In Section 1704.3, Steel construction, "the on-site erection of" shall be inserted after "for."
- viii. In Table 1704.3, Required Verification and Inspection of Steel Construction, Items 1, 3, and 4 shall be deleted.
- ix. In Section 1704.5, Masonry construction, "in Seismic Design Category D" shall be inserted after the second "construction." In the same section, in Exception 2, the reference to "Table 1805.5(1)" shall be deleted.

- x. Section 1704.6, Wood construction, shall be deleted in its entirety.
- xi. Section 1704.9, Pier foundations, shall be deleted in its entirety.
- xii. In Section 1705.1, Scope, "for Seismic Design Category D buildings" shall be inserted after "provided."
- xiii. Section 1706, Quality Assurance for Wind Regulations, shall be deleted in its entirety.
- xiv. Sections 1708.1, Masonry, 1708.1.1, Empirically designed masonry and glass unit masonry in nonessential facilities, 1708.1.2, Empirically designed masonry and glass unit masonry in essential facilities, 1708.1.3, Engineered masonry in nonessential facilities, 1708.1.4, Engineered masonry in essential facilities, 1708.3, Reinforcing and pre-stressing steel, 1708.4, Structural tests, and 1708.5, Mechanical and electrical equipment, shall be deleted in their entirety.
 - xv. Section 1709, Structural Observations, shall be deleted in its entirety.
 - 16. Chapter 18, Soils and Foundations, shall be amended as follows:
- i. In the title of Section 1802.2.6, "Seismic Design Category C" shall be deleted and "Seismic Design Category D" shall be inserted. In the first sentence, the reference to "Seismic Design Category C" shall be deleted and "Seismic Design Category D" shall be inserted.
- ii. New Section 1802.2.8 from Section 1802.1 of the 1996 BOCA National Building Code shall be inserted as follows: "Building Height: For all buildings that are more than three stories or 40 feet (12,192 mm) in height, the building official shall request soil tests."
- iii. Section 1802.4.1, Exploratory boring, shall be amended as follows: After the first sentence, the following sentence from Section 1802.1 of the 1996 BOCA National Building Code shall be inserted: "There shall be at least one exploratory boring to rock or to an adequate depth below the load-bearing strata for every 2,500 square feet (232.5 mm) of built-over area, and such additional tests as the code official requires."
 - iv. In Section 1802.6, Reports, "soil borings are required" shall be inserted after "Where."
- v. In Section 1805.2.1, Frost protection, "400 square feet (37 m[2])" shall be deleted and "100 square feet (9.25 m[2])" shall be inserted.
 - vi. In Section 1806.3.1, Floors, "60" shall be deleted and "6" shall be inserted.
- vii. New Section 1806.5 from Section 1813.8 of the 1996 BOCA National Building Code shall be inserted as follows: "1806.5 Erosion protection: Where water impacts the ground from the edge of the roof, downspout, scupper or other rain water collection or diversion device, provisions shall be made to prevent soil erosion and direct the water away from the foundation."
- viii. Section 1807.2.6, Spacing, shall be deleted in its entirety and Section 1816.9 of the 1996 BOCA National Building Code shall be inserted as follows: "Spacing: The minimum center-to-center spacing of piles shall not be less than twice the average diameter of a round pile, nor less than 13/4 times the diagonal dimension of a rectangular pile. Where driven to or penetrating into rock, the spacing shall not be less than 24 inches (610 mm). Where receiving principal support at the end from materials other than rock, or through friction resistance, the spacing shall not be less than 30 inches (762 mm) except that for piles having enlarged bases formed either by compacting concrete or driving a pre-cast base, the minimum center-to-center spacing shall be 41/2 feet (1,372 mm). The spacing of piles shall be such that the average load on the supporting strata will not exceed the safe load-bearing value of those strata as determined by test borings or other approved methods."
- ix. In Section 1807.2.23.2, Seismic Design Category D, E, or F, the references to "Seismic Design Categories E and F" shall be deleted.

- x. Section 1808.2.2.1, Materials, shall be deleted in its entirety and Section 1821.2.2 of the 1996 BOCA National Building Code shall be inserted as follows: "All concrete shall have a 28-day specified compressive strength (fC[c]) of not less than 4,000 psi (27579 kPa)."
 - 17. Chapter 21, Masonry, shall be amended as follows:
- i. In Figure 2111.1, Fireplace and Chimney Details, in the plan view illustration, Letter B is improperly dimensioned. The text of Section 2111.10 shall prevail.
 - 18. Chapter 23, Wood, shall be amended as follows:
- i. In Section 2303.4.1, entitled "Truss Design Drawings," the third sentence shall be amended to insert "and truss layout drawings" after "Truss shop drawings."
- ii. New Section 2303.4.2, entitled "Truss Identification," shall be inserted as follows: "Each truss shall be labeled or otherwise indelibly marked at the factory with the individual truss number as assigned in the truss layout plan. The indelible marking or label shall be located on the bottom chord of the truss, inside the bearing points. When indelible markings are used, each digit shall be not less than one inch high. When labels are used, the label shall be a minimum of five inches by three inches and shall be affixed to the truss by a truss plate. Labels shall remain affixed to the truss."
- 19. Chapters 27, Electrical; 28, Mechanical Systems; and 29, Plumbing, shall be deleted in their entirety.
 - 20. Chapter 30, Elevators and Conveying Systems, shall be amended as follows:
- i. In Section 3001.1, Scope, and where applicable N.J.A.C. 5:23-12" shall be inserted after "chapter."
- ii. In Section 3001.2, Referenced standards, "this code" shall be deleted and "these rules" shall be inserted. In the same section, "with the exception of Rule 1206.1h, Part XX and Part XXI" shall be inserted after "ASME A17.1" and "ASME A18.1" shall be inserted after "ASME A90.1." In addition, at the end of the section, the following shall be inserted: "The scope of Part XXIV of ASME A17.1, entitled "Elevator Safety Requirements for Seismic Risk Zone 2 or Greater," is deleted."
- iii. Section 3002.4, Elevator car to accommodate ambulance stretcher, shall be amended as follows: In the first sentence, after "In buildings four stories in height or more," insert ", other than multiple dwellings,".
- iv. New Section 3002.4.1, Elevators in newly constructed multiple dwellings, shall be inserted as follows: "When an elevator is installed in any newly constructed multiple dwelling, the elevator shall meet the dimensional requirements above."
- v. New Section 3003.3, Standardized fire service keys, shall be inserted as follows: "All new elevators shall be equipped to operate with a standardized fire service key."
- vi. In Section 3004.4, Closed vents, "annealed glass" shall be deleted and "plain glass" shall be inserted.
 - vii. In Section 3004.5, Plumbing and mechanical systems, the exception shall be deleted.
 - 21. Chapter 31, Special Construction, shall be amended as follows:
- i. New Section 3102.3.2, which shall be the text of Section 3104.6 of the 1996 BOCA National Building Code, shall be inserted as follows: "Certification: An affidavit or affirmation shall be submitted to the code official and a copy retained on the premises on which the tent or air-supported structure is located. The affidavit or affirmation shall attest to the following information relative to the flame-resistance of the fabric:
 - 1. Names and addresses of the owners of the tent or air-supported structure.
 - 2. Date the fabric was last treated with flame-resistant solution.

- 3. Trade name or kind of chemical used in treatment
- 4. Name of person or firm treating the material.
- 5. Name of testing agency and test standard by which the fabric was tested."
 - ii. Section 3103.1.1 shall be deleted in its entirety and the following shall be inserted:

"Temporary structures, tents, tensioned membrane structures, and canopies meeting the criteria in N.J.A.C. 5:23-2.14 shall not require a permit. Greenhouses meeting the criteria in N.J.A.C. 5:23-3.2(d) shall not require a permit."

iii. Section 3109, Swimming Pool Enclosures, shall be deleted in its entirety and the following shall be inserted:

"3109 SWIMMING POOLS, SPAS AND HOT TUBS -- 3109.1 GENERAL. -- The provisions of this section shall control the design and construction of swimming pools, spas and hot tubs. 3109.2 DEFINITIONS. -- For the purposes of these requirements, the terms used shall be

defined as follows and as set forth in Chapter 2.

ABOVE-GROUND/ON-GROUND POOL. -- See "Swimming pool"

BARRIER -- A fence, wall, building wall or combination thereof which completely surrounds the swimming pool and obstructs access to the swimming pool.

HOT TUB -- See "Swimming pool."

IN-GROUND POOL -- See "Swimming pool."

RESIDENTIAL -- That which is situated on the premises of a detached one-or two-family dwelling or a one-family townhouse not more than three stories in height.

SPA, NONPORTABLE -- See "Swimming pool."

SWIMMING POOL -- Any structure intended for swimming or recreational bathing that can hold water 24 inches (610 mm) or more in depth. This includes in-ground, aboveground and onground swimming pools, hot tubs and spas.

SWIMMING POOL, INDOOR -- A swimming pool that is totally contained within a structure and surrounded on all four sides by walls of said structure.

SWIMMING POOL, OUTDOOR -- Any swimming pool, which is not an indoor pool.

3109.3 In-ground public pools. In-ground pools shall be designed and constructed in conformance with ANSI/NSPI-1 as listed in Chapter 35.

3109.4 Residential pools. In-ground residential pools shall be designed and constructed in conformance with ANSI/NSPI-5 as listed in Chapter 35. Above-ground/on-ground residential pools shall be designed and constructed in conformance with ANSI/NSPI-4 as listed in Chapter 35.

3109.5 Permanently installed public spas and hot tubs. Permanently installed public spas and hot tubs shall be designed and constructed in conformance with ANSI/NSPI-2 as listed in Chapter 35.

3109.6 Portable residential spas and hot tubs. Portable residential spas and hot tubs shall be designed and constructed in conformance with ANSI/NSPI-3 as listed in Chapter 35.

3109.7 Enclosures for private swimming pools, spas and hot tubs. The provisions of this section shall control the design of barriers for residential swimming pools, spas and hot tubs.

3109.7.1 Outdoor swimming pool. An outdoor swimming pool, including an in-ground, aboveground or on-ground pool, hot tub or spa subject to this code shall be provided with a barrier which shall comply with the following:

1. The top of the barrier shall be at least 48 inches (1,219 mm) above grade measured on the side of the barrier, which faces away from the swimming pool. The maximum vertical clearance between grade and the bottom of the barrier shall be two inches (51 mm) measured on the side of

the barrier, which faces away from the swimming pool. Where the top of the pool structure is above grade, such as an aboveground pool, the barrier may be at ground level, such as the pool structure, or mounted on top of the pool structure. Where the barrier is mounted on top of the pool structure, the maximum vertical clearance between the top of the pool structure and the bottom of the barrier shall be four inches (102 mm).

- 2. Openings in the barrier shall not allow passage of a four-inch-diameter (102 mm) sphere.
- 3. Solid barriers, which do not have openings, such as a masonry or stone wall, shall not contain indentations or protrusions except for normal construction tolerances and tooled masonry joints.
- 4. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is less than 45 inches (1,143 mm), the horizontal members shall be located on the swimming pool side of the fence. Spacing between vertical members shall not exceed 1.75 inches (44 mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches (44 mm) in width.
- 5. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is 45 inches (1,143 mm) or more, spacing between vertical members shall not exceed four inches (102 mm). Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches (44 mm) in width.
- 6. Maximum mesh size for chain link fences shall be a 1.25-inch (32 mm) square unless the fence is provided with slats fastened at the top or the bottom that reduce the openings to not more than 1.75 inches (44 mm).
- 7. Where the barrier is composed of diagonal members, such as a lattice fence, the maximum opening formed by the diagonal members shall not be more than 1.75 inches (44 mm).
- 8. Access gates shall comply with the requirements of Section 3109.7.1, Items 1 through 7, and shall be equipped to accommodate a locking device. Pedestrian access gates shall open outward away from the pool and shall be self-closing and have a self-latching device. Gates other than pedestrian access gates shall have a self-latching device. Where the release mechanism of the self-latching device is located less than 54 inches (1,372 mm) from the bottom of the gate, the release mechanism and openings shall comply with the following:
- 8.1. The release mechanism shall be located on the pool side of the gate at least three inches (76 mm) below the top of the gate, and
- 8.2. The gate and barrier shall have no opening greater than 0.5 inch (12.7 mm) within 18 inches (457 mm) of the release mechanism.
- 9. Where an aboveground pool structure is used as a barrier or where the barrier is mounted on top of the pool structure, and the means of access is a ladder or steps, then:
- 9.1. The ladder or steps shall be surrounded by a barrier that meets the requirements of Section 3109.7.1 Items 1 through 8.
- 3109.8 Barrier exceptions. Spas or hot tubs with a safety cover that complies with ASTM F 1346, as listed in Chapter 35, shall be exempt from the provisions of this section.
- 3109.9 Enclosures for public swimming pools, spas and hot tubs. Public swimming pools shall be completely enclosed by a fence at least four feet (1,290 mm) in height or a screen enclosure. Openings in the fence shall not permit the passage of a four-inch (102 mm) diameter sphere. The fence or screen enclosure shall be equipped with self-closing and self-latching gates.
 - 22. Chapter 32, Encroachments into the Public Rights of Way, shall be amended as follows:

- i. In Section 3202.1.2, Vaults and other enclosed spaces, "authority or legislative body having jurisdiction" shall be deleted and "Uniform Construction Code (N.J.A.C. 5:23)" shall be inserted.
- ii. In Section 3202.3.4, Pedestrian walkways, "authority having jurisdiction" shall be deleted and "the construction official" shall be inserted.
- iii. In Section 3202.4, Temporary encroachments, "local authority having jurisdiction" shall be deleted and "municipality" shall be inserted.
 - 23. Chapter 33, Safeguards During Construction, shall be amended as follows:
- i. Sections 3303.1, Construction documents; 3303.2, Pedestrian protection; 3303.4, Vacant lot; 3303.5, Water accumulation; and 3303.6, Utility connections, shall be deleted in their entirety.
- ii. In the last sentence of Section 3309.1, Where required, "On construction sites," shall be inserted before "All." In addition, in the last sentence, "Section 906" shall be deleted and "the International Fire Code" shall be inserted.
 - 24. Chapter 34, Existing Structures, shall be deleted in its entirety.
 - 25. Chapter 35, Referenced Standards, shall be amended as follows:
- i. Under the subheading "ASME," the following reference shall be inserted: "ASME A18.1-1999, Safety Standard for Platform Lifts and Stairway Chairlifts, with A18.1a-2001 addenda."
- ii. Under the subheading "NFPA," "NFPA 13-96, Installation of Sprinkler Systems; NFPA 13D-96, Installation of Sprinkler Systems in One- and Two-family Dwellings and Manufactured Homes; and NFPA 13R-96, Installation of Sprinkler Systems in Residential Occupancies Up to and Including Four Stories in Height" shall be deleted and "NFPA 13-99 Installation of Sprinkler Systems; NFPA 13D-99, Installation of Sprinkler Systems in One- and Two-family Dwellings and Manufactured Homes; and NFPA 13R-99, Installation of Sprinkler Systems in Residential Occupancies Up to and Including Four Stories in Height" shall be inserted. In addition, "NFPA 20-99, Installation of Centrifugal Fire Pumps" shall be inserted after "NFPA 17A-98, Wet Chemical Extinguishing Systems."
- iii. Under the subheading "NSPI" the following NSPI Standards shall be inserted: "ANSI/NSPI-1, Permanently Installed Public In-ground Public Pools, ANSI/NSPI-2, Permanently Installed Public Spas, ANSI/NSPI-3, Standard for Permanently Installed Residential Spas, ANSI/NSPI-4, Standard for Residential Above-Ground/One-Ground Swimming Pools, and ANSI/NSPI-5, Standard for Residential In-ground Swimming Pools."
 - 26. The Appendices shall be amended as follows:
- i. Appendix A, Employee Qualifications; Appendix B, Board of Appeals; Appendix C, Group U-Agricultural Buildings; Appendix D, Fire Districts; Appendix E, Supplementary Accessibility Requirements; Appendix F, Rodent Proofing; and Appendix G, Flood Resistant Construction, shall be deleted in their entirety.
- ii. In Appendix H, at the beginning of the Appendix, the sentence, "The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance," shall be deleted in its entirety.
 - (1) In Appendix H, Section H101.2, Signs exempt from permits, shall be deleted in its entirety.
- (2) In Appendix H, Section H105.2, Permits, drawings and specifications, "as provided in Chapter 1" shall be deleted and "as provided in N.JA.C. 5:23-2.14" shall be inserted.

- (3) In Appendix H, Section H106.1, Illumination, "ICC Electrical Code" shall be deleted and "electrical subcode" shall be inserted.
- (4) In Appendix H, Section H106.2, Electrical service, "ICC Electrical Code" shall be deleted and "electrical subcode" shall be inserted.
- iii. Appendix I, Patio Covers, and Appendix J, Supplementary Accessibility Requirements for Qualified Historic Buildings and Facilities, shall be deleted in their entirety.

N.J.A.C. 5:23-3.15 Plumbing subcode

- (a) Rules concerning subcode adopted are as follows:
- 1. Pursuant to authority of P.L. 1975, c.217, as modified by P.L. 1996, c.53, the Commissioner hereby adopts the Model Code of the National Association of Plumbing Heating-Cooling Contractors, known as "The National Standards Plumbing Code/2003," as the plumbing subcode for New Jersey.
- i. Copies of this code may be obtained from the sponsor at: NAPHCC, P.O. Box 6808, Falls Church, VA 22046.
- 2. "The National Standard Plumbing Code/2003," including appendices, may be known and cited as "the plumbing subcode."
- (b) The following pages, chapters, sections or appendices of the plumbing subcode are amended as follows:
- 1. The section entitled "Administration," comprising sections ADM 1.1 through ADM 1.13, is deleted in its entirety.
 - 2. Chapter 1 of the plumbing subcode, entitled "Definitions," is amended as follows:
 - i. Delete the term and definition of "Adopting Agency."
- ii. Amend the definition of "approved" as follows: delete "Sec. 3.12" and insert "N.J.A.C. 5:23-3.7."
- iii. Delete the definition of "Authority Having Jurisdiction" and insert the following: "Unless otherwise defined herein, or unless the context clearly indicates otherwise, the term "authority having jurisdiction" for purposes of the plumbing subcode, shall mean the "plumbing subcode official."
- iv. The definition of the term "building" is deleted, and substitute in lieu thereof, the definition of the term "building" found in N.J.A.C. 5:23-1.4.
- v. In the definition of "Building Classification" delete "authority having jurisdiction" and insert "building subcode" at N.J.A.C. 5:23-3.14.
 - vi. The term and definition of "code" are deleted.
 - vii. The term and definition of "family" are deleted.
 - viii. The term and definition of "nuisance" are deleted.
- ix. Add the following new definition after the definition of Swimming Pool: Swimming Pool, Public: A swimming pool located on any property other than a one or two family residential property and including, but not limited to, swimming pools open to the use of members, residents or the public.
 - ${\it 3. Chapter 2 of the plumbing subcode, entitled "General Regulations," is amended as follows:}\\$
 - i. Section 2.5 is deleted in its entirety.
- ii. In Section 2.9.3 delete "Building Code or as required by the proper Authority Having Jurisdiction" and insert "building subcode."
 - iii. Section 2.12 is amended to delete subparagraph e.
- iv. In Section 2.16, at Item 1, insert the number "42" in the blank space provided. Additionally, add the following sentence: "Combination domestic/fire water service piping shall be installed such that the minimum earth cover is 42 inches or the top of the pipe is 12 inches below the frost depth of the locality, whichever is greater. Limited-area sprinkler systems installed in accordance with Section 903.3.5.1.1 of the building subcode, shall be installed such that the minimum earth cover is 42 inches." In the same section, at Item 2, insert the number

- "24" in the blank space provided and add the following sentence at the end: "Minimum earth cover for building sewers connected to a private sewage disposal system shall be 6 inches."
- v. Section 2.19.1 is amended to delete the blank and the words "feet of any property line of the premises, or other."
- vi. Section 2.19.2 is amended to delete the words "the Health Department or other agency having jurisdiction" and substitute in lieu thereof "The New Jersey Department of Environmental Protection."
- vii. In Section 2.25, at Item 8, insert "and which does not otherwise adversely affect health and safety" at the end of the section.
 - 4. Chapter 3 of the plumbing subcode, entitled "Materials," is amended as follows:
- i. In Section 3.1.1 delete "Minimum." In the same section at items (1) and (2), delete "Section 3.12.2" and insert "N.J.A.C. 5:23-3.7."
- ii. In Section 3.1.2, at Item a, delete "at least." In the same section, delete "Section 3.12" and insert "N.J.A.C. 5:23-3.7."
 - iii. In Section 3.13 delete "Section 3.12.2" and insert "N.J.A.C. 5:23-3.7."
- iv. Section 3.3.8a is amended to add the following phrase: "Pressure vessels shall be designed and constructed in accordance with the requirements of American Society of Mechanical Engineers, (ASME), Rules for Construction of Pressure Vessels, Section VIII/1998. Any pressure vessel that exceeds any of the following, shall meet the requirements of ASME and shall be stamped ASME: A heat input rating of 200,000 BTU per hour; or a water temperature of 200 degrees Fahrenheit; or a nominal water capacity of 120 gallons or any other thresholds of ASME that apply."
 - v. Section 3.3.11 entitled "Septic Tanks" is deleted in its entirety.
- vi. Add new section 3.4.2.1 as follows: 3.4.2.1 Combination Domestic/Fire Water Service: Water service piping for combination domestic/fire water services shall be of materials listed in Table 3.4 and shall be water pressure rated not less than 200 psig at 73 [degree] F. Joint restraints shall comply with Section 6.3, entitled "Joint Restraint for Fire Mains" per NFPA 13. Exception: Limited area sprinkler systems installed in accordance with Section 903.3.5.1.1 of the building subcode, shall be water pressure rated not less than 160 psig at 73 [degree] F.
 - vii. In Section 3.11.1 delete "approved by the Authority Having Jurisdiction."
- viii. In Section 3.11.2 delete "except as may be otherwise authorized by the Authority Having Jurisdiction."
 - ix. Sections 3.12.1, 3.12.2, 3.12.3, 3.12.4, and 3.12.5 are deleted in their entirety.
- 5. Chapter 4 of the plumbing subcode entitled, "Joints and Connections" is amended as follows:
- i. In Section 4.3.8(b)(3) delete "be approved by the Authority Having Jurisdiction if such products are not listed or labeled" and insert "or as permitted under N.J.A.C. 5:23-3.7."
- 6. Chapter 5 of the plumbing subcode entitled, "Traps, Cleanouts and Backwater Valves" is amended as follows:
- i. In Section 5.3.2, Exception (2), delete "administrative authority" and insert "Authority Having Jurisdiction in accordance with N.J.A.C. 5:23-3.3."
- ii. In Section 5.3.4 delete "administrative authority" and insert "Authority Having Jurisdiction in accordance with N.J.A.C. 5:23-3.3."
- 7. Chapter 6 of the plumbing subcode, entitled "Liquid Waste Treatment Equipment," is amended as follows:

- i. At the end of Section 6.1.1 delete "in the opinion of the administrative authority" and add the following: "The determination of necessity shall be made by the plumbing subcode official in accordance with N.J.A.C. 5:23-3.3."
- ii. Section 6.4.4 is amended to add the phrase "in accordance with N.J.A.C. 5:23-3.3" after the word "approval" on line 2.
- 8. Chapter 7 of the plumbing subcode, entitled "Plumbing Fixtures, Fixture Fittings and Plumbing Appliances" is amended as follows:
- i. Section 7.2 is amended to read "Plumbing fixtures for accessible use and their installation shall conform to the requirements of N.J.A.C. 5:23-7 et. seq."
- ii. In Section 7.4.4, Exception (2) shall be deleted and the following text shall be inserted: "Accessible water closets shall conform to the requirements of N.J.A.C. 5:23-7 et seq. In facilities intended primarily for use by the elderly, water closets, other than those required to be accessible, shall be at least 17 inches high."
- iii. At the end of Section 7.18.2 after "Authority Having Jurisdiction" insert "in accordance with N.J.A.C. 5:23-3.3."
- iv. Note 1 to Table 7.21.1 is amended to delete the words "For handicap requirements see local, state, or national codes." in the second sentence.
- v. Figure 7.3.2 is amended to delete the word "Code" and substitute in lieu thereof "Subcode" in the block at bottom.
 - vi. A new section 7.25 is added as follows:
- "7.25 Safety Features for Public Swimming Pools.
- Public swimming pools shall comply with the following sections of the N.J. Department of Health and Senior Services, Chapter 26 "Public Recreational Bathing," Subchapter 3. Swimming Pools. N.J.A.C. 8:26-3.16 Inlets and outlets:.
- (c)1. All swimming pools shall be equipped with main drain suction outlets in the lowest point of the swimming pool floor. The spacing of the main drain suction outlets shall not be greater than 20 feet on center, nor more than 15 feet from each side wall.
- (d) The suction outlets shall be designed to protect against a suction entrapment, evisceration, and/or hair entanglement/entrapment hazard.
- 2. A minimum of two hydraulically balanced suction outlets equipped with covers shall be provided per swimming pool pump suction line.
- ii. No means of isolating the two suction outlets shall be permitted that will cause one suction fitting to become the sole source of fluid to the pump. The single pipe to a pump suction inlet may be valved off to shut off the flow to the pump."
- 9. Chapter 10 of the plumbing subcode, entitled "Water Supply and Distribution," is amended as follows:
- i. In Section 10.2 after Authority Having Jurisdiction" insert "in accordance with N.J.A.C. 5:23-3.3".
- ii. In Section 10.4.2 delete "with the approval of the Authority Having Jurisdiction" and insert "in accordance with the rules of the New Jersey Department of Environmental Protection at N.J.A.C. 7:10-10":
- iii. Section 10.4.3 is amended to read: "Potable water supplies shall be protected in accordance with the provisions of this code and where applicable the Safe Drinking Water Regulations (N.J.A.C. 7:10). The requirements of this code shall establish requirements for individual outlet protection. The requirements of the Safe Drinking Water Act shall establish the requirements for containment.";

- iv. In Section 10.4.4b delete "administrative authority" and insert "Authority Having Jurisdiction in accordance with N.J.A.C. 7:10-10.2(e)."
- v. Section 10.5.6d. is amended to delete the words "and repair" on the first line, and to delete the third sentence.
- vi. In Section 10.8.1 insert "as required by the Authority Having Jurisdiction" after "in accordance with good practice."
- vii. Section 10.15.1 is amended to add the phrase "Outlet temperature of hot water from lavatory faucets in public facility restrooms (such as those in service stations, airports, train and bus terminals, and conventions halls) shall be provided with a means to limit the maximum temperature to 110 [degree]F. as required in ASHRAE 90.1-1999."
- 10. Chapter 11 of the plumbing subcode, entitled "Sanitary Drainage Systems," is amended as follows:
- i. Section 11.4.3 is amended at the end to add the sentence "Diversity factors shall be established in accordance with N.J.A.C. 5:23-3.3."
- 11. Chapter 12 of the plumbing subcode, entitled "Vents and Venting," is amended as follows:
 - i. In Section 12.4.5 delete "when approved by the Authority Having Jurisdiction".
 - ii. Section 12.5 is deleted in its entirety.
 - iii. Section 12.8.2 is deleted in its entirety.
- 12. Chapter 13 of the plumbing subcode, entitled "Storm Water Drainage," is amended as follows:
- i. Section 13.1.5a through c is amended to read "subsoil drains shall be provided in accordance with the building subcode."
- ii. Section 13.1.10.1 is amended to delete the last sentence and to substitute in lieu thereof "Rainfall rates shall be based on Appendix A of the 1993 edition of the National Standard Plumbing Code. Appendix A shall be applied so that the applicable rainfall rate for Burlington and Ocean counties and all counties south shall be six inches per hour and for Mercer and Monmouth counties and all counties north, the applicable rainfall rate shall be five inches per hour."
 - iii. Section 13.1.10.2, "Secondary Roof Drainage," is deleted.
 - iv. Section 13.1.10.4, "Equivalent Systems," is deleted.
- v. In Section 13.9.1 after "Authority Having Jurisdiction" insert "in accordance with N.J.A.C. 5:23-3.3."
- 13. Except as otherwise indicated in (b) 14i below, sections 16.1 through 16.12.1.13 of chapter 16 of the plumbing subcode, entitled "Regulations Governing Individual Sewage Disposal Systems for Homes and Other Establishments Where Public Sewer Systems Are Not Available" are deleted in their entirety.
- i. Section 16.1.7 is retained and amended to read as follows: "When a sewage disposal system is being abandoned and a connection is being made to the public sewer system, the plumbing subcode official shall ensure that the abandoned septic system is disconnected from the building, pumped out and filled with gravel, stones or soil material."
- Note: Existing standards of the Department of Environmental Protection and boards of health with respect to individual on-site sewage disposal systems remain in effect.
- 14. Chapter 15 of the plumbing subcode, entitled "Tests and Maintenance" is amended as follows:

- i. Add new Section 15.6.1 as follows: 15.6.1 Combination Domestic/Fire Water Service Systems: Piping for combination domestic/fire water services systems shall be pressure tested to not less than 200 psig and shall maintain that pressure without loss for 2 hours.
- ii. Add new Section 15.6.1.1 as follows: 15.6.1.1 Leakage: The following provisions shall apply to buried pipe in all combination domestic/fire water service systems, except for limited sprinkler systems:
- (1) The amount of leakage at the joints shall be no greater than 2 qt/hr (1.89 L/hr) per 100 joints or gaskets, regardless of pipe diameter.
- (2) The amount of leakage in accordance with (1) above shall be permitted to be increased in increments of 1 fluid ounce (30 ml) per inch valve diameter per hour for each metal seated valve that isolates the test section.
- (3) The amount of leakage in buried piping shall be measured at the test pressure specified by pumping from a calibrated container.
- iii. Add new Section 15.9 as follows: 15.9 Flushing of Piping: Lead-in connections to system risers and fire service mains from the water supply to the system riser (excluding limited systems) shall be flushed completely before connection is made to sprinkler piping. The flushing operation shall be continued for a sufficient amount of time to ensure that the system is thoroughly cleaned. The minimum rate of flow shall be not less than one of the following:
 - (1) The hydraulically calculated water demand rate of the system, including any hose requirements.
 - (2) The flow that is necessary to provide a velocity of 10 ft/sec (3.1 m/sec).
 - (3) The maximum flow rate available to the system under fire conditions.
- 15. 15. Chapter 17 of the plumbing subcode, entitled "Potable Water Supply System" and comprising sections 17.1 through 17.15.2 is deleted in its entirety.

Note: Existing standards of the Department of Environmental Protection and boards of health with respect to individual on-site water supply systems remain in effect.

- 16. Chapter 18 of the plumbing subcode, entitled "Mobile Home and Travel Trailer Park Plumbing Standards," is amended as follows:
 - i. Section 18.2.1 is amended to delete the last sentence beginning "Trailer home park".
 - ii. Section 18.2.2 is amended to delete the words "or sewerage disposal" on line 1.
- iii. Section 18.5.8 is amended to add the phrase "and as provided by the authority having jurisdiction" after the words "chapter 10 of this code."
 - iv. Section 18.8.1.2 is deleted.
- v. Section 18.8.3 is amended to add the phrase "for dependent trailers" after the word "park" on line 1.
- vi. Section 18.8.4 is amended to add the phrase "for dependent trailers" after the word "park" on line 1.
 - vii. Section 18.9 is deleted.
 - viii. Section 18.10 is deleted.
 - 17. Appendix A entitled "Sizing Storm Drainage Systems," is deleted in its entirety.

N.J.A.C. 5:23-3.16 Electrical subcode

- (a) Rules concerning the subcode adopted are as follows:
- 1. Pursuant to authority of P.L. 1975, c. 217, as modified by P.L. 1996, c.53, the Commissioner hereby adopts the model code of the National Fire Protection Association, known as "The National Electrical Code 2005" as the electrical subcode for New Jersey.
- i. Copies of this code may be obtained from the sponsors at NFPA, One Batterymarch Park, Quincy, Massachusetts 02269.
 - 2. The National Electrical Code 2005 may be known and cited as "the electrical subcode."
- i. Codes and standards referenced in the Fine Print Notes (FPNs) of the electrical subcode (NEC 2005) shall be considered adopted by reference to the extent prescribed by each related section. These codes and standards also are printed in DCA Bulletin #06-2, which contains a list of adopted codes and standards that are applicable to the enforcement of the electrical subcode.
- 3. The Commissioner hereby adopts the National Electrical Safety Code (ANSI C2-2002) for the installation of area lighting facilities by an electric utility on private property on metal poles with an underground electric feed.
- i. Copies of the National Electrical Safety Code may be obtained from the Institute of Electrical and Electronic Engineers, Inc., PO Box 1331, 445 Hoes Lane, Piscataway, New Jersey 08855-1331.
- (b) The following chapters or articles of the electrical subcode are amended as follows:
 - 1. Article 90 of the electrical subcode, entitled "Introduction," is amended as follows:
- i. Section 90.4, entitled "Enforcement," is amended to delete in the first paragraph the phrase, "authority having jurisdiction for enforcement of the code" and substitute in lieu thereof, the term "electrical subcode official." And add a new last sentence in the first paragraph: "Approval shall be in accordance with N.J.A.C. 5:23-2.9." Delete in the second paragraph the phrase "authority having jurisdiction" and substitute in lieu thereof the term "electrical subcode official" and add after "effective safety" the phrase "as provided in N.J.A.C. 5:23-2.9." Delete in the third paragraph the phrase "authority having jurisdiction" and substitute in lieu thereof the term "electrical subcode official" and delete the phrase "by the jurisdiction" after the word "adopted."
- ii. Section 90.5, entitled "Mandatory Rules, Permissive Rules, and Explanatory Material," is amended to add "except as outlined under N.J.A.C. 5:23-3.16(a)2i" after the word "Code" in line 6 under paragraph (C).
- 2. Chapter 1 of the electrical subcode, Article 100, entitled "Definitions," is amended as follows:
- i. The definition of the term "approved" is amended to delete the phrase "the authority having jurisdiction" and substitute in lieu thereof, the phrase "electrical subcode official. Approval shall be in accordance with N.J.A.C. 5:23-3.7, 3.8 and 3.8A."
- ii. The definition of "Authority having jurisdiction" is replaced with "Unless otherwise specifically noted, the authority having jurisdiction for the Electrical Subcode shall be the Electrical Subcode Official."
- iii. The definition of the term "building" is deleted and in lieu thereof, substitute the definition of the term "building" found in N.J.A.C. 5:23-1.4".
- 3. Chapter 2 of the electrical subcode, entitled "Wiring and Protection," is amended as follows:

- i. Section 210.12(B) of Article 210, entitled "Branch Circuits," is amended to insert the following sentence at the end of the section, "This requirement shall be considered optional."
- 4. Chapter 3 of the electrical subcode, entitled "Wiring Methods and Materials," is amended as follows:
- i. Section 300.4(A)(1) is amended to delete the words from "so that the edge . . ." on line four through ". . . cannot be maintained" on line six and in lieu thereof substitute "as required by the building subcode. Where the distance from the edge of the hole to the nearest edge of the wood member is less than 32 mm (1 1/4 inches)."
 - ii. Section 334.12(A)(2) is deleted in its entirety.
 - 5. Chapter 5 of the electrical subcode, entitled "Special Occupancies," is amended as follows:
- i. Sections 514.11(B) and 514.11(C) are amended to delete the phrase "authority having jurisdiction" and substitute in lieu thereof the phrase "fire protection subcode official."
- ii. Part II of Article 550, entitled "Mobile Homes, Manufactured Homes, and Mobile Home Parks" comprising sections 550.11 through 550.25 is deleted. Section 550.10 shall be retained.
- (1) Exception--Part II is retained in its entirety in the case of mobile/manufactured homes undergoing repair, renovation, or alteration.
- (A) Section 550.25 is amended to add the following sentence at the end of the section: "This requirement shall be considered optional."
- iii. In Article 551, entitled "Recreation Vehicles and Recreation Vehicle Parks," delete from the title the words "Recreational Vehicles and."
 - (1) Section 551.1 is amended to delete the phrase "within or on recreational vehicles" on line 4.
- (2) Parts II, III, IV, and V, comprising sections 551.20 through 551.60, are deleted in their entirety, with the exception of Figure 551.46(C), which shall be retained.
 - iv. The following amendments are made to Article 552, entitled "Park Trailers":
 - (1) Parts II and III comprising sections 552.10 through 552.20 are deleted in their entirety.
- (2) Part IV comprising sections 552.40 through 552.59 is deleted with the exception of sections 552.43, 552.44 and 552.47 which shall be retained.
 - (3) Part V is deleted in its entirety.
- 6. Annex G of the electrical subcode, entitled "Administration and Enforcement," is deleted in its entirety.
- (c) A newly installed automatic lawn sprinkler system, where such systems are not prohibited by local ordinance, shall be equipped with an automatic rain sensor device or switch that will override the irrigation cycle of the automatic lawn sprinkler system when rainfall of more than one-half inch has occurred.

N.J.A.C. 5:23-3.17 Fire protection subcode

- (a) Rules concerning the subcode adopted are as follows:
- 1. Pursuant to the authority of P.L. 1975, c.217 as modified by P.L. 1996, c.53, the Commissioner hereby adopts the following portions of the building, electrical, mechanical and fuel gas subcodes, to the extent delineated in N.J.A.C. 5:23-3.4, as the fire protection subcode for New Jersey.
- i. International Building Code/2000 of the International Code Council, Inc. (N.J.A.C. 5:23-3.14):
 - (1) Chapter 3-Use and Occupancy Classification;
 - (2) Chapter 4-Special Detailed Requirements Based on Use and Occupancy;
 - (3) Chapter 7-Fire Resistance-Rated Construction;
 - (4) Chapter 8-Interior Finishes;
- (5) Chapter 9-Fire Protection Systems and N.J.A.C 5:23-3.5(d) entitled "Posted Hydraulic System Data Plate";
- (A) Section 907.2.6 shall be amended as follows: Add the following text to the end of this section: "Alarms activated by smoke detectors required by this section shall be activated by either two cross-zoned smoke detectors with a single protected area or a single smoke detector monitored by an alarm verification zone or an approved equivalent method."
- (B) Section 907.2.8 shall be amended as follows: Add the following text to the end of this section: "Alarms activated by smoke detectors required by this section shall be activated by either two cross-zoned smoke detectors with a single protected area or a single smoke detector monitored by an alarm verification zone or an approved equivalent method."
 - (6) Chapter 10-Means of Egress;
 - (7) Sections 2111 through 2113 of Chapter 21-Masonry;
 - (8) Sections 2603 through 2607 of Chapter 26-Plastic;
 - (9) Section 3104 of Chapter 31-Special Construction;
 - (10) Section 3309, 3311 and 3312 of Chapter 33-Safeguards During Construction;
- ii. National Electrical Code/2002 of the National Fire Protection Association (N.J.A.C. 5:23-3.16).
 - (1) Section 300.21 of Chapter 3-Wiring Methods and Materials;
 - (2) Article 450, Part III-Transformer Vaults of Chapter 4-Equipment for General Use;
 - (3) Chapter 5-Special Occupancies;
 - (4) Article 695-Fire Pumps of Chapter 6-Special Equipment;
 - (5) Article 760-Fire Alarm Systems of Chapter 7-Special Conditions;
- iii. International Mechanical Code/2003 of the International Code Council (N.J.A.C. 5:23-3.20):
 - (1) Chapter 3-General Regulations;
 - (2) Chapter 5-Exhaust Systems;
 - (3) Chapter 6-Duct Systems;
 - (4) Chapter 7-Combustion Air;
 - (5) Chapter 8-Chimneys and Vents;
 - (6) Chapter 9-Specific Appliances, Fireplaces and Solid Fuel Burning Equipment;
 - (7) Chapter 13-Fuel Oil Piping and Storage;

- iv. International Fuel Gas Code/2003 of the International Code Council (N.J.A.C. 5:23-3.22):
 - (1) Chapter 3-General Regulations;
 - (2) Chapter 5-Chimneys and Vans;
 - (3) Chapter 6-Specific Appliances.
- 2. The model code portions listed above may be known as "the fire protection subcode." (b) Rules concerning modifications to subcodes are as follows:
- 1. The modifications made to the appropriate portion of the adopted model code in N.J.A.C. 5:23-3.14 (Building Subcode), N.J.A.C. 5:23-3.16 (Electrical Subcode), N.J.A.C. 5:23-3.20 (Mechanical Subcode) and N.J.A.C. 5:23-3.22 (Fuel Gas Subcode) will apply also to those portions as regards this adoption.

N.J.A.C. 5:23-3.18 Energy Subcode

- (a) Rules concerning the subcode adopted are as follows:
- 1. Pursuant to authority of P.L. 1975, c.217, as modified by P.L. 1996, c.53, the Commissioner hereby adopts the model code of the Council of American Building Officials, Inc., known as the Model Energy Code/1995, as the energy subcode for New Jersey.
- i. Copies of the CABO Model Energy Code/1995 may be obtained from BOCA International, 4051 West Flossmoor Road, Country Club Hills, Illinois 60478-5795.
 - ii. The model code listed above may be known and cited as the "energy subcode."
- (b) The following chapters and sections of the energy subcode are amended as follows:
- 1. The following amendments are made to Chapter 1 of the energy subcode titled "Administration and Enforcement":
 - i. Section 101.1 "Title" is deleted.
- ii. Section 101.3 "Compliance" is amended to add the following sentence after the first bullet item: "Residential buildings provided with high efficiency equipment (90 percent AFUE for furnace 85 percent AFUE for boilers and 8.0 HSPF for air source heat pumps) shall be exempt from the requirement to insulate basement walls. Code requirements for other envelope components must meet the component performance approach requirements of Chapter 5."
 - iii. Subsection 101.4.3 "Application to existing buildings" is deleted.
 - iv. Subsections 102.1.2 and 102.1.3 are deleted.
 - v. Section 102.2 "Maintenance information" is deleted.
 - vi. Section 104 "Plans and specifications" is deleted.
 - vii. Section 105 "Inspection" is deleted.
 - viii. Section 106 "Validity" is deleted.
- 2. The following amendments are made to Chapter 2 of the energy subcode titled "definitions":
- i. The term "building official" is deleted, and the following language is substituted: "For the purpose of the energy subcode, the term "building official" shall mean the appropriate subcode official as designated in N.J.A.C. 5:23-3.4."
 - ii. The term "building project" is deleted.
- 3. The following amendments are made to Chapter 3 of the energy subcode, titled "Design Conditions":
- i. Section 302.1 is amended to read as follows: "Design conditions shall be based on the values from the 97 1/2 percent column for winter and the 2 1/2 percent column for summer from climate tables in Standard RS-1 listed in Chapter 8 for the nearest listed location."
 - ii. Table 302.1 is deleted.
- 4. The following amendments are made to Chapter 5 of the energy subcode titled "Residential Building Design by Component Performance Approach":
 - i. Table 502.2.1a is amended as follows:

Table 502.2.1a
Heating and Cooling Criteria

		Type A1	Type A2
Element	Mode	Buildings Uo	Buildings Uo
Walls	Heating or Cooling	.150	.215
Roof/Ceiling	Heating or Cooling	.033	.033
	Walls	Walls Heating or Cooling Roof/Ceiling Heating or	Element Mode Buildings Uo Walls Heating or .150 Cooling Roof/Ceiling Heating or .033

Unheated space	Cape May, Cumberland,	El	TT	0.5	05
Unheated/heat ed slab on grade Basement Wall Cooling See notes 2, 3, 4 Crawl Space Unheated/heat ed slabs on grade Basement Wall Cooling See notes 2, 3, 4 Crawl Space Unheated/heat Euses Norris, Passaic, Somerset Sussex, Warren Floors over Unheated/heat ed slabs on grade Basement Wall Cooling See notes 2, 3 See notes 2,	Gloucester, Salem	Floors over	Heating or Cooling	.05	.05
ed slab on grade Basement Wall Heating or Cooling See notes 2, 3, 4 Crawl Space Heating or Cooling See notes 2, 3 Cooling See notes 2, 3 Cooling See notes 2, 3 See notes 2, 3 Cooling See notes 2, 3 Cooling See notes 2, 3				D 1 1/D 6	
Basement Wall Heating or Cooling See notes 2, 3, 4 Crawl Space Heating or Cooling See notes 2, 3 Cooling Heating or Cooling See notes 2, 3 See notes 2, 3, 4 Crawl Space Heating or Cooling See notes 2, 3 S			Heating	R value-4/R-6	R value-4/R-6
Cooling See notes 2, 3, 4 Crawl Space Heating or .075					
3,4 Crawl Space Wall see notes 2, 3		Basement Wall	_	.1	.1
Wall see notes 2, 3 Heating or Cooling					
South Sout		Wall		.075	.075
Burlington, Essex, Roof/Ceiling Heating or Cooling Hudson, Mercer, Middlesex, Monmouth, Ocean, Union Floors over Heating or Cooling unheated space Unheated/heat ed slabs on grade Basement Wall Cooling See notes 2, 3, 4 Crawl Space Heating or Cooling Bergen, Hunterdon, Morris, Passaic, Somerset Sussex, Warren Floors over Heating or Cooling unheated space Unheated/heat ed slabs on grade Basement Wall Heating or Cooling See notes 2, 3					
Hudson, Mercer, Middlesex, Monmouth, Ocean, Union Floors over Heating or Cooling unheated space Unheated/heat ed slabs on grade Basement Wall Cooling see notes 2, 3, 4 Crawl Space Walls Heating or Cooling See notes 2, 3 Morris, Passaic, Somerset Sussex, Warren Floors over Heating or Cooling See notes 2, 3 Morris, Passaic, Somerset Sussex, Warren Floors over Heating or Cooling See notes 2, 3 Heating or Description of the state of the st	5,000	Walls		.141	.215
Hudson, Mercer, Middlesex, Monmouth, Ocean, Union Floors over Heating or Cooling unheated space Unheated/heat ed slabs on grade Basement Wall Heating or Cooling see notes 2, 3, 4 Crawl Space Walls Heating or Cooling	Burlington, Essex,	Roof/Ceiling	_	.031	.031
Cooling Unheated space Unheated/heat Heating R value-4 .3/6.4			C		
unheated space Unheated/heat ed Heating 3/6.4 R value-4 .3/6.4 R value-4 .3/6.4 slabs on grade Basement Wall Heating or Cooling .1 .1 see notes 2, 3, 4 Crawl Space Wall Heating or Cooling .060 .060 bergen, Hunterdon, Morris, Passaic, Somerset Roof/Ceiling Heating or Cooling Heating or Cooling .028 .028 Sussex, Warren Floors over Heating or Cooling .050 .050 Unheated/heat ed slabs on grade Basement Wall Heating or Cooling R-4.7/6.7 R-4.7/6.7 see notes 2, 3, 4 Crawl Space Heating or Cooling .0975 .0975 Wall Cooling .060 .060	Monmouth, Ocean, Union	Floors over		.050	.0500
ed slabs on grade Basement Wall Heating or Cooling See notes 2, 3,4 Crawl Space Heating or Cooling See notes 2, 3,4 Crawl Space Heating or Cooling See notes 2, 3 S,500 Walls Heating or Cooling Cooling See notes 2, 3 Cooling Cooling See notes 2, 3 Somerset Sussex, Warren Floors over Heating or Cooling See notes 2, 3, 4 Crawl Space Heating or Cooling See notes 2, 3, 4 Crawl Space Heating or Cooling See notes 2, 3, 4 Crawl Space Heating or Cooling See notes 2, Salab Space Solab		unheated space	· ·		
Basement Wall Heating or Cooling see notes 2, 3, 4 Crawl Space Heating or Mall Cooling see notes 2, 3 5,500 Walls Heating or Cooling Bergen, Hunterdon, Morris, Passaic, Somerset Sussex, Warren Floors over Heating or Cooling unheated space Unheated/heat Heating or Cooling Basement Wall Heating or Marting unheated space Unheated/heat Heating or Marting ed slabs on grade Basement Wall Heating or Marting see notes 2, 3, 4 Crawl Space Heating or Marting Cooling R-4.7/6.7 Arting 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1		Unheated/heat	Heating		
Cooling See notes 2, 3, 4 Crawl Space Heating or Cooling See notes 2, 3 Cooling See notes 2, 3 Cooling See notes 2, 3 Cooling Coolin		slabs on grade			
3,4 Crawl Space Wall Cooling see notes 2, 3 5,500 Walls Heating or .134 .215 Cooling Bergen, Hunterdon, Morris, Cooling Passaic, Somerset Sussex, Warren Floors over Heating or Cooling unheated space Unheated/heat ed slabs on grade Basement Wall Heating or .0975 .0975 Cooling see notes 2, 3, 4 Crawl Space Heating or .060 .060 Wall Cooling		Basement Wall		.1	.1
Wall See notes 2, 3 5,500 Walls Heating or Cooling Bergen, Hunterdon, Morris, Cooling Passaic, Somerset Sussex, Warren Floors over Unheated space Unheated/heat ed slabs on grade Basement Wall Basement Wall Cooling See notes 2, 3, 4 Crawl Space Wall Cooling Cooling Cooling Reating or 0.028 Loso Los					
5,500 Walls Heating or .134 .215 Cooling Bergen, Hunterdon, Roof/Ceiling Heating or .028 .028 Morris, Cooling Passaic, Somerset Sussex, Warren Floors over Heating or .050 .050 Cooling unheated space Unheated/heat Heating R-4.7/6.7 R-4.7/6.7 ed slabs on grade Basement Wall Heating or .0975 .0975 Cooling see notes 2, 3, 4 Crawl Space Heating or .060 .060 Wall Cooling				.060	.060
Bergen, Hunterdon, Morris, Passaic, Somerset Sussex, Warren Floors over Unheated space Unheated/heat ed slabs on grade Basement Wall Each of Cooling see notes 2, 3, 4 Crawl Space Wall Cooling Cooling Heating or Cooling R-4.7/6.7 R-4		see notes 2, 3			
Morris, Passaic, Somerset Sussex, Warren Floors over Unheated space Unheated/heat ed slabs on grade Basement Wall See notes 2, 3, 4 Crawl Space Wall Cooling Cooling Cooling Cooling R-4.7/6.7	5,500	Walls		.134	.215
Sussex, Warren Floors over Cooling unheated space Unheated/heat ed slabs on grade Basement Wall Cooling see notes 2, 3, 4 Crawl Space Wall Cooling Floors over Heating or Cooling .050 .050 .050 .050 .050 .050 .050 .0		Roof/Ceiling		.028	.028
Cooling unheated space Unheated/heat Heating R-4.7/6.7 R-4.7/6.7 ed slabs on grade Basement Wall Heating or .0975 .0975 Cooling see notes 2, 3, 4 Crawl Space Heating or .060 .060 Wall Cooling	Passaic, Somerset				
Unheated/heat Heating R-4.7/6.7 R-4.7/6.7 ed slabs on grade Basement Wall Heating or .0975 .0975 Cooling see notes 2, 3, 4 Crawl Space Heating or .060 .060 Wall Cooling	Sussex, Warren	Floors over		.050	.050
ed slabs on grade Basement Wall Heating or .0975 .0975 Cooling see notes 2, 3, 4 Crawl Space Heating or .060 .060 Wall Cooling		unheated space	•		
Basement Wall Heating or .0975 .0975 Cooling see notes 2, 3, 4 Crawl Space Heating or .060 .060 Wall Cooling			Heating	R-4.7/6.7	R-4.7/6.7
Basement Wall Heating or .0975 .0975 Cooling see notes 2, 3, 4 Crawl Space Heating or .060 .060 Wall Cooling		slabs on grade			
see notes 2, 3, 4 Crawl Space Heating or .060 .060 Wall Cooling				.0975	.0975
3, 4 Crawl Space Heating or .060 .060 Wall Cooling		see notes 2,	6		
Crawl Space Heating or .060 .060 Wall Cooling					
· · · · · · · · · · · · · · · · · · ·		Crawl Space		.060	.060
Values were determined using the graphs (Figures 1 2 3 4 5 and 6)		see notes 2, 3	-		

^{1.} Values were determined using the graphs (Figures 1, 2, 3, 4, 5 and 6) contained in Chapter 8.

^{2.} Basement and crawl space wall U-values shall be based on the wall components and surface air film. Adjacent soil shall not be considered in the determination of the U-value.

- 3. Typical foundation wall techniques can be found in standard RS-20 found in Chapter 8.
- 4. The need for basement wall insulation shall be waived when the residential building is provided with high efficiency mechanical equipment (furnaces 90 percent AFUE or greater, boilers 85 percent AFUE or greater).
- 5. The following amendments are made to Chapter 7 of the energy subcode titled "Building Design for all Buildings Other than Residential Buildings":
- i. Section 702.1 is amended to read "building designs shall meet the requirements of Sections 5.2, 6.2, 7.2, 9.2 and 10.2 in Standard RS-22 listed in Chapter 8."
- ii. Section 702.2 is amended to read: "In addition, building designs shall meet the prescriptive criteria of Sections 5.3, 6.3, 7.3 and 9.3."

The exception is amended to read:

- "1. The system performance requirements of Standard RS-22 may be used in the following cases:
- 1.1 A building design meeting Section 6.1.3 instead of the Section 6.2 and 6.3 prescriptive requirements in Standard RS-22.
- 1.2 A building meeting Section 5.4 instead of the 5.3 prescriptive requirements in Standard RS-22.
- 2. A building design meeting the Section 11 building energy cost budget method in Standard RS-22."
 - 6. Chapter 8 titled "Referenced Standards" is amended as follows:
- i. RS-22 is amended to read "ASHRAE/IES 90.1--1999 Energy Efficient Design of New Buildings Except Low Rise Residential Buildings (c)2000."

N.J.A.C. 5:23-3.19 Manufactured home subcode

- (a) Pursuant to authority of P.L. 1975, c.217, as amended, the Commissioner hereby adopts the Federal Manufactured Home Construction and Safety Standards, as set forth in Part 3280 of Title 24 of the Code of Federal Regulations, including all subsequent revisions and amendments thereto, as the manufactured home subcode for New Jersey.
- 1. Copies of the volume of the Code of Federal Regulations containing Part 3280 of Title 24 may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20420.
- 2. Part 3280 of Title 24 of the Code of Federal Regulations, including all subsequent revisions and amendments thereto, may be known and cited as the manufactured home subcode. (b) The following sections of Subpart A of Part 3280 are deemed to be administrative in nature and are therefore excluded from the manufactured home subcode:
 - 1. Section 3280.1, entitled "Scope";
 - 2. Section 3280.5, entitled "Data plate";
 - 3. Section 3280.6, entitled "Serial number";
 - 4. Section 3280.7, entitled "Modular homes"; and
 - 5. Section 3280.8, entitled "Certification label".
- (c) Any manufactured home construction or safety issue not covered under the manufactured home subcode which is, however, covered under another subcode adopted pursuant to this subchapter shall be determined in accordance with such other subcode.
- (d) The adoption of a manufactured home subcode shall not be construed as in any way limiting the power or duty of the Department of Community Affairs to enforce and comply with all applicable provisions of the Federal Manufactured Housing Construction and Safety Standards Act of 1974 and the regulations promulgated pursuant thereto, including all subsequent revisions and amendments thereto, when authorized to do so by the Secretary of the United States Department of Housing and Urban Development.

N.J.A.C. 5:23-3.20 Mechanical subcode

- (a) Rules concerning the subcode adopted are as follows:
- 1. Pursuant to authority of P.L. 1975, c.217, the Commissioner hereby adopts the model code of the International Code Council, Inc., known as the International Mechanical Code/2003. This code is hereby adopted by reference as the Mechanical Subcode for the State of New Jersey subject to the modifications in (b) below.
- i. Copies of this code may be obtained from the International Code Council, 4051 West Flossmoor Road, Country Club Hills, Illinois 60478-5795.
- ii. The International Mechanical Code/2003 may be known and cited as the "mechanical subcode."
- 2. Any references to the International Plumbing Code, ICC Electrical Code, the International Energy Conservation Code or the International Existing Building Code listed in Chapter 15 shall be considered a reference to the appropriate adopted plumbing, electrical, or energy subcode in N.J.A.C. 5:23-3 or rehabilitation subcode in N.J.A.C. 5:23-6.
- 3. Anywhere the term "code" appears, shall be a reference to "subcode" as defined in N.J.A.C. 5:23-1.4 for any of the adopted national model codes as appropriate.
- (b) The following chapters, sections or pages of the International Mechanical Code/2003 are amended as follows:
 - 1. Chapter 1 of the mechanical subcode, entitled "Administration," is deleted in its entirety.
 - 2. Chapter 2 of the mechanical subcode, entitled "Definitions," is amended as follows:
- i. In Section 201.3 delete "ICC Electrical Code and International Plumbing Code," and insert "electrical subcode and plumbing subcode."
- ii. The definition of the term "alteration" is deleted and substitute the definition found in $N.J.A.C.\ 5:23-1.4.$
 - iii. The definition of the term "approved" is deleted.
- iv. The definition of the term "building" is deleted and substitute the definition found in N.J.A.C. 5:23-1.4.
 - v. The definition of the term "code" is deleted.
- vi. The definition of the term "code official" is deleted, and the following language is substituted: "For the purpose of the mechanical subcode, the term "code official" shall mean the appropriate subcode official as designated in N.J.A.C. 5:23-3.4."
- 3. Chapter 3 of the mechanical subcode, entitled "General Regulations," is amended as follows:
 - i. Section 301.1 is amended to delete the words "in accordance with Section 101.2."
 - ii. Section 301.4 is amended to delete the words "in accordance with Section 105."
 - iii. Add new section 301.16 as follows:
- 301.16 Safety devices and controls. Oil burners, other than oil stoves with integral tanks, shall be provided with means for manually stopping the flow of oil to the burner. Such device or devices shall be placed in a readily accessible location a minimum of 10 feet from the burner. For electrically driven equipment, an identified switch in the burner supply circuit shall be provided at the entrance to the room or area where the appliance is located or, for equipment located in basements, the switch is required to be located at the top of stairs leading to the basement. An identifiable valve in the oil supply line, operable from a location a minimum of 10 feet from the burner shall be used for other than electrically driven or controlled equipment.

- iv. Section 301.11 is deleted.
- v. In Section 305.5 delete 1.5 on line 4 and insert 1.0.
- vi. Section 307.1 is amended to delete "approved plumbing fixture" on line 3 and insert the following: "drywell, sump pump, floor drain, or drainage system below floor."
- vii. Section 307.2.1 is amended to add the following after the word "disposal" on line 3: "in accordance with the adopted plumbing subcode."
 - viii. Section 307.2.2 is deleted.
 - ix. Section 309 is deleted.
 - x. Section 312 is deleted.
 - 4. Chapter 4 of the mechanical subcode, entitled "Ventilation," is amended as follows:
- i. Section 403.2 is amended to add the following language: "Exception: Where the registered design professional demonstrates that an engineered ventilation system design will prevent the maximum concentration of contaminants from exceeding that obtainable by the rate of outdoor air ventilation determined in accordance with Section 403.3, the minimum required rate of outside air shall be reduced in accordance with such engineered system design."
 - 5. Chapter 5 of the mechanical subcode, entitled "Exhaust Systems," is amended as follows:
- i. Section 503.1 is amended to replace the second sentence with the following: "The type and wiring methods for motors in areas that contain flammable vapors or dusts shall be in accordance with the electrical subcode."
- ii. Section 512.1 is amended to add a sentence as follows: "This section shall not apply to radon construction techniques covered by subchapter 10 of the Uniform Construction Code."
- iii. 513.11 is amended to replace the third sentence with the following: "Secondary power shall be from a legally required standby power source complying with the electrical subcode." Also, delete the following sentences: "Power distribution from the two sources shall be by independent routes. Transfer to full standby power shall be automatic and within 60 seconds of failure of the primary power."
- iv. 513.12.1 is amended to delete the wording in its entirety and substitute the following: "Wiring. All wiring shall be in accordance with the electrical subcode."
 - 6. Chapter 6 of the mechanical subcode, entitled "Duct Systems," is amended as follows:
- i. Section 602.2.1 is amended to modify Exception 3 to read: "This section shall not apply to materials exposed within plenums in one-and two-family dwellings. Wire exposed in plenums of one-and two-family dwellings shall conform to the requirements of the electrical subcode."
- ii. Section 602.2.1.1 is deleted in its entirety and substitute the following language: "Wiring, cable and raceways installed in a plenum shall be listed and installed in accordance with the electrical subcode."
- iii. Section 602.2.1.4 is deleted in its entirety and substitute the following language: "Combustible electrical equipment exposed within a plenum shall be listed and labeled and shall be installed in accordance with the requirements of the electrical subcode."
- 7. Chapter 9 of the mechanical subcode, entitled "Specific Appliances, Fireplaces and Solid Fuel Burning Equipment," is amended as follows:
 - i. Section 917.2 is deleted in its entirety.
 - ii. Section 917.3 is deleted in its entirety.
- 8. Chapter 10 of the mechanical subcode, entitled "Boilers, Water Heaters and Pressure Vessels," is amended as follows:
- i. Section 1001.1 is amended to replace the words "installation, alteration, and repair of boilers," with the words "installation and alteration of boilers."

- ii. Section 1003.1 is amended to add the following phase: "Pressure vessels shall be designed and constructed in accordance with the requirements of ASME "Rules for Construction of Pressure Vessels, Section VIII/1998".
 - 9. Chapter 11 of the mechanical subcode, entitled "Refrigeration," is amended as follows:
 - i. Section 1102.2.2 is deleted.
 - ii. Section 1109 is deleted.
- 10. Chapter 13 of the mechanical subcode, entitled "Fuel Oil Piping And Storage," is amended as follows:
- i. Section 1301.2 is amended to add the following sentence: "Where the tank is of a size and type that is subject to the Department of Environmental Protection rules for the installation of Underground Storage Tanks at N.J.A.C. 7:14B, those rules shall apply."
- 11. Chapter 15 of the mechanical subcode, entitled "Referenced Standards," is amended as follows:
 - i. Under the heading "ICC," amend the following titles:
 - (1) Delete "IBC--03, International Building Code" and insert "IBC--00, International Building Code."
 - (2) Delete "ICC EC--03, ICC Electrical Code."
 - (3) Delete "IEBC--03, International Existing Building Code."
 - (4) Delete "IECC--03, International Energy Conservation Code."
 - (5) Delete "IFC--03, International Fire Code" and insert "IFC--00, International Fire Code."
 - (6) Delete "IPC--03, International Plumbing Code."
 - (7) Delete "IRC--03, International Residential Code" and insert "IRC--00, International Residential Code."
- 12. Appendix A of the mechanical subcode entitled "Combustion Air and Chimney Connector Pass-Throughs" is informative and is not part of the code.
- 13. Appendix B of the mechanical subcode entitled "Recommended Permit Fee Schedule," is deleted in its entirety.
- (c) Single station carbon monoxide alarms shall be installed and maintained in full operating condition in the immediate vicinity of each sleeping area in any guestroom or dwelling unit located in a building of Group I-1, R-1, R-2, R-3, R-4, or R-5, if the building contains a fuel-burning appliance or has an attached garage. An "open parking structure," as defined in the building subcode, shall not be deemed to be an attached garage.
- 1. Exceptions: Guestrooms or dwelling units which do not themselves contain a fuel-burning appliance or have an attached garage, but which are located in a building with a fuel-burning appliance or an attached garage, need not be provided with single station carbon monoxide alarms provided that:
- i. The guestroom or dwelling unit is located more than one story above or below any story which contains a fuel-burning appliance or an attached garage; the guestroom or dwelling unit is not connected by duct work or ventilation shafts to any room containing a fuel-burning appliance or to an attached garage; and the building is provided with a common area carbon monoxide alarm system. The individual alarms shall be located in every room adjacent to the room(s) containing a fuel-burning appliance, and in every corridor, hall or lobby adjacent to such room(s) and in the immediate vicinity of any ventilated shaft, including, but not limited to, stair shafts, elevator shafts, ventilation shafts on the story containing the fuel-burning appliance and

any story within two stories above or below said story. All such common area alarm devices shall be connected to an alarm monitoring station or shall be interconnected; or

- ii. The building is provided with a monitored carbon monoxide alarm system. Individual alarms shall be located in every room containing a fuel-burning appliance. All such alarms shall be connected to an alarm monitoring station that shall be staffed at all times by a person who is trained and qualified to respond so as to protect the health and safety of building occupants in the event of the activation of one or more alarms. Carbon monoxide alarms and fire alarms may be incorporated into a common monitored system.
- 2. Carbon monoxide alarms shall be manufactured, listed and labeled in accordance with UL 2034 and shall be installed in accordance with the requirements of this section and NFPA 720. Carbon monoxide alarms shall be battery operated, hard-wired or of the plug-in type.

N.J.A.C. 5:23-3.20A (Reserved)

N.J.A.C. 5:23-3.21 One-and two-family dwelling subcode

- (a) Rules concerning the subcode are adopted as follows:
- 1. Pursuant to authority of P.L. 1975, c.217, as modified by P.L. 1996, c.53, the Commissioner hereby adopts the model code of the International Code Council, International Residential Code known as the "IRC/2000" as the one-and two-family dwelling subcode in New Jersey subject to the modifications stated in (c) below.
- i. Copies of this code may be obtained from the International Code Council at 4051 West Flossmoor Road, Country Club Hills, Illinois 60478-5795.
- ii. The IRC/2000 may be known and cited as the one-and two-family dwelling subcode. (b) The provisions of this subcode shall apply to the construction, alteration, repair, or increase in size of detached one-or two-family dwellings, or single family townhouses, of Group R-5 not more than three stories in height. For this purpose, a townhouse shall be as defined in Section 202 of the International Residential Code: "A single-family dwelling unit constructed in a group of three or more attached units in which each unit extends from foundation to roof and with open space on at least two sides."
- (c) The following chapters or sections of the IRC/2000 shall be modified as follows:
- 1. Chapter 1, General Administration, shall be deleted in its entirety. In addition, any referenced section of Chapter 1 shall be deleted throughout the code and "the administrative provisions of the Uniform Construction Code (N.J.A.C. 5:23)" shall be inserted.
 - 2. Chapter 2, Definitions, shall be amended as follows:
 - i. The definition of "Additions" shall be deleted.
 - ii. The definition of "Alteration" shall be deleted.
- iii. The definition of "Approved" shall be deleted and the following shall be inserted: "Approved refers to approval by the building subcode official or other authority having jurisdiction in accordance with the regulations."
- iv. In the definition of "Approved Agency," "or other authority having jurisdiction in accordance with the Uniform Construction Code" shall be inserted after "Official."
- v. The definitions of "Building" shall be deleted and the definition at N.J.A.C. 5:23-3.14(b)2iv shall be inserted.
 - vi. The definition of "Building, Existing" shall be deleted.
 - vii. The definition of "Building Line" shall be deleted.
- viii. The definition of "Building Official" shall be deleted and the definition at N.J.A.C. 5:23-3.14(b)2vi shall be inserted.
 - ix. The definition of "Existing Installations" shall be deleted.
 - x. The definition of "Jurisdiction" shall be deleted.
 - xi. The definition of "Manufactured Home" shall be deleted.
- xii. The definition of "Owner" shall be deleted and the definition at N.J.A.C. 5:23-3.14(b)2viii shall be inserted.
 - xiii. The definition of "Permit" shall be deleted.
 - xiv. The definition of "Person" shall be deleted.
- xv. In the definition of "Potable Water," "public health authority having jurisdiction" shall be deleted and "Public Health Drinking Water Standards or the regulations" shall be inserted.

- xvi. The definition of "Repair" shall be deleted.
- 3. Chapter 3, Building Planning, shall be amended as follows:
 - i. Add new Section R300 as follows:

"R300 HEIGHT AND AREA LIMITATIONS. -- Buildings of VB, unprotected wood framed construction, as that term is defined in Section 602 of the building subcode, shall be not more than two stories, not more than 35 feet in height, and not more than 4,800 square feet in area per floor. For the purpose of applying this section, a habitable attic shall not constitute a story. A habitable attic shall be an attic that has a stairway as a means of access and egress and in which the ceiling area at a height of seven feet above the attic floor is not more than one-third the area of the next floor below.

R300.1 INCREASES IN HEIGHT. -- The building shall be not more than three stories and not more than 55 feet in height where the building is equipped throughout with an automatic sprinkler system installed in accordance with the National Fire Protection Association (NFPA) Standard 13 or 13R and where the system is monitored by an approved supervising station in accordance with NFPA 72.

R300.2 INCREASES IN AREA. -- The area of a building may be increased as provided in Sections R300.2.1 and Section R300.2.2 below.

R300.2.1 The area limitation shall be permitted to be increased 200 percent for one-and two-story buildings and 100 percent for buildings more than two stories in height where a building is equipped throughout with an automatic sprinkler system installed in accordance with NFPA Standard 13.

R300.2.2 The area limitation shall be permitted to be increased two percent for each one percent of excess frontage where a building has more than 25 percent of the building perimeter fronting on a street or other unoccupied space. The unoccupied space shall be on the same lot or dedicated for public use, shall be not less than 30 feet in width, and shall have access from a street by a posted fire lane that is not less than 18 feet in width.

R300.3 BUILDINGS OF VA CONSTRUCTION. -- Buildings of VA, protected wood framed construction, as that term is defined in Section 602 of the building subcode, shall be not more than three stories, not more than 40 feet in height, and not more than 10,200 square feet in area per floor.

R300.3.1 Buildings of VA construction greater than three stories in height shall be designed and constructed in accordance with the building subcode.

R300.3.2 Buildings of VA construction shall be permitted to be increased in area in accordance with R300.2.

R300.4 BUILDINGS OF OTHER TYPES OF CONSTRUCTION: -- The height and area limits allowable for buildings of construction type VA shall apply to other construction types, as they are defined in Section 602 of the building subcode, provided that the fire ratings of building elements meet or exceed the requirements for type VA in Tables 601 and 602 of the building subcode.

- ii. In Section R301.2.1.1, Design criteria, "with the provisions of this code or" shall be inserted after "accordance." In addition, Item 2 shall be deleted.follows:
- iii. In Section R301.2.1.2, Internal pressure, in the exception, "in one-and two-story buildings" shall be deleted from the first sentence.
- iv. Table R301.2(1), Climatic and Geographic Design Criteria, shall be amended as follows:

Table No. 301.2(1)
CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

Ground Snow Load (lbs./sq. ft)	Wind Speed (mph)	Seismic Design Category	Subject to Damage from Weathering	Frost Line Depth	Subject to Damage	
					Termite	Decay
20	See fig.	N/A	Severe	2 feet-6	Modera	Slight
	R301.2(4)			inches	te	
See note 4			See note 1	(Southern Area)	to	to
				3 feet-0	Heavy	Modera
				inches		te
				(Northern		
				Area)		
				See notes 2,		
				3 and 4		

Notes:

- 1. Weathering may require a higher strength concrete or grade of masonry than necessary to satisfy structural requirements of this code. The grade of masonry units shall be determined from the ASTM C34, C55, C62, C73, C90, C129, C145, C216, or C625 listed in Chapter 43.
- 2. The frost line depth may require deeper footings than indicated in Section R403.1.4. The jurisdiction shall fill in the frost line depth column with minimum depth of footing below finished grade.
- 3. New Jersey is divided into two zones: Zone 1 consists of Monmouth and Burlington Counties and all counties to the south. Zone 2 consists of Mercer and Middlesex Counties and all counties to the north.
- 4. The enforcing agency having jurisdiction may establish values other than the ones listed for " ground snow load," and "frost line depth" if warranted by documented local climatic and geographic conditions."
- v. In Section R301.2.2, Seismic provisions, "and single-family townhouses" shall be inserted after "Detached one-and two-family dwellings."
 - vi. Section R303.4, Stairway illumination, shall be deleted in its entirety.
- vii. New Section R301.8, entitled "Residential Attics with trusses," from Section 1606.2.3 of the 1996 BOCA National Building Code, shall be inserted as follows:
- "A storage live load shall be applied to those portions of the bottom chord of not less than two adjacent trusses with the same web configuration containing a rectangle 42 inches (1067 mm) high or greater by 2 feet (610 mm) wide or greater, located within the plane of the truss. The rectangle shall fit between the top of the bottom chord and the bottom of any other truss member, provided each of the following criteria are met:
- (1) The attic area is accessible by a permanent stairway, pull down stairway, or scuttle opening meeting the size requirement specifications of Section R807, and
 - (2) The truss shall have a bottom chord pitch less than 2 in 12."
 - viii. Section R303.6, Required heating, shall be deleted in its entirety.
- ix. In Section R308.4, Hazardous locations, Item 9 shall be deleted. In the same section, Exception 9 shall be deleted.
- x. Section R309.2, Separation required, shall be deleted and the following shall be inserted: "Private garages located beneath rooms shall have walls, partitions, floors and ceilings separating the garage from the adjacent interior spaces constructed with not less than a one-hour fire resistance rating (see N.J.U.C.C. FTO-13). Attached private garages shall be completely

separated from the adjacent interior spaces and the attic area by means of 1/2 -inch gypsum board or equivalent applied to the garage side."

- xi. In Section R310.1, Emergency escape and rescue required, "Basements with habitable spaces and" shall be deleted. The sentence shall start with "Every."
- xii. In Section R314.2, Treads and risers, "7 3/4 inches (196 mm)" shall be deleted and "8 1/4 inches (210 mm)" shall be inserted. In the same section, "10 inches (254 mm)" shall be deleted and "nine inches (229 mm)" shall be inserted.
- xiii. In Section R314.4, Winders, "10 inches (254 mm)" shall be deleted and "nine inches (229 mm)" shall be inserted.
- xiv. In Section R314.6, Circular stairways, "six inches (152 mm)" shall be deleted and "nine inches (229 mm)" shall be inserted.
 - xv. Section R314.7, Illumination, shall be deleted in its entirety.
- xvi. Section R315.1 shall be deleted and Section 315.1, Handrails, of the 1995 edition of the Council of American Building Officials One- and Two-Family Dwelling Code (1995 CABO One- and Two-Family Dwelling Code) shall be inserted as follows:

"Handrails. Handrails having minimum and maximum heights of 30 inches and 38 inches (762 mm and 965 mm), respectively, measured vertically from the nosing of the treads, shall be provided on at least one side of stairways of three or more risers. Spiral stairways shall have the required handrail located on the outside of the radius. All required handrails shall be continuous the full length of the stairs. Ends shall be returned or shall terminate the newel posts or safety terminals. Handrails adjacent to a wall shall have a space not less than 1 1/2 inches (38 mm) between the wall and the handrail.

Exceptions:

- 1. Handrails shall be permitted to be interrupted by a newel post at a turn.
- 2. The use of a volute, turnout, or starting easing shall be allowed over the lowest tread." xvii. Section R316.2, Guard opening limitations, "Required guards shall not be constructed with horizontal rails or other ornamental patterns that result in a ladder effect." shall be deleted in its entirety.
 - xviii. Section R317.1.1, Alterations, repairs and additions, shall be deleted in its entirety.
- xix. In Section R317.2, Power source, "Smoke alarms shall be permitted to be battery operated when installed in buildings without commercial power or in buildings that undergo alterations, repairs, or additions regulated by Section R317.1.1." shall be deleted.
- xx. In Section R321.1, Dwelling unit separation, "13R, or 13D" shall be inserted after "NFPA 13."
 - xxi. In Section R322.1, Moisture control, Exception 3 shall be deleted.
 - xxii. Section R325.1, Site address, shall be deleted in its entirety.
- xxiii. In Section R327.1.8, Manufactured housing, "and the anchor and tie-down requirements of Section AE604 and AE605 of Appendix E shall apply" shall be deleted.
 - 4. Chapter 4, Foundations shall be amended as follows:
- i. In Table R401.4.1, Presumptive Load Bearing Values of Foundation Materials, "12,000; 4,000; 3,000; 2,000; and 1,500[b]" shall be deleted and "12,000; 6,000; 5,000; 3,000; and 2,000" shall be inserted.
- ii. In Section R403.3.2 of the IRC/2000, Drainage, in the second sentence, "as detailed in Table 405.1" shall be deleted."
- iii. In Section R404.1, Concrete and masonry foundation walls, the second sentence shall be deleted.

- iv. In Section R404.4, Insulating concrete form foundation walls, the second sentence shall be deleted.
- v. Sections R405, Foundation Drainage, and R406, Foundation Waterproofing and Dampproofing, shall be deleted and the text of Section 1806, Dampproofing and Waterproofing from the International Building Code (IBC)/2000 shall be inserted as follows:
- "R406.1 Where required. Walls or portions thereof that retain earth and enclose interior spaces and floors below grade shall be waterproofed and dampproofed in accordance with this section, with the exception of those spaces containing groups other than residential and institutional where such omission is not detrimental to the building or occupancy.
- R406.1.1 STORY ABOVE GRADE. -- Where a basement is considered a story above grade and the finished ground level adjacent to the basement wall is below the basement floor elevation for 25 percent or more of the perimeter, the floor and walls shall be dampproofed in accordance with Section R406.2 and a foundation drain shall be installed in accordance with Section R406.4.1. The foundation drain shall be installed around the portion of the perimeter where the basement floor is below ground level. The provisions of Sections R406.3 and R406.4.1 shall not apply in this case.
- R406.1.2 UNDERFLOOR SPACE. -- The finished ground level of an underfloor space such as a crawl space shall not be located below the bottom of the footings. Where there is evidence that the ground water table rises to within six inches (152 mm) of the ground level at the outside building perimeter or where there is evidence that the surface water does not readily drain from the building site, the ground level of the underfloor space shall be as high as the outside finished ground level, unless an approved drainage system is provided. The provisions of Sections R406.2, R406.3 and R406.4 shall not apply in this case.
- R406.1.2.1 FLOOR HAZARD AREAS. -- For buildings and structures in flood hazard areas as established in Section R327, the finished ground level of an underfloor space such as a crawl space shall be equal to or higher than the outside finished ground level.
- R406.1.3 GROUNDWATER CONTROL. -- Where the groundwater table is lowered and maintained at an elevation not less than 6 inches (152 mm) below the bottom of the lowest floor, the floor and walls shall be dampproofed in accordance with Section R406.2. The design of the system to lower the groundwater table shall be based on accepted principles of engineering that shall consider, but not necessarily be limited to, permeability of the soil, rate at which water enters the drainage system, rated capacity of pumps, head against which pumps are to pump; and the rated capacity of the disposal area of the system.
- R406.2 DAMPPROOFING REQUIRED. -- Where hydrostatic pressure will not occur, floors and walls for other than wood foundation systems shall be dampproofed in accordance with this section. Wood foundation systems shall be constructed in accordance with AFPA TR7.
- R406.2.1 FLOORS. -- Dampproofing materials for floors shall be installed between the floor and the base course required by Section R406.4.1, except where a separate floor is provided above a concrete slab.

Where installed beneath the slab, dampproofing shall consist of not less than six-mil (0.006 inch; 0.152 mm) polyethylene with joints lapped not less than six inches (152 mm), or other approved methods or materials. Where permitted to be installed on top of the slab, dampproofing shall consist of mopped-on bitumen, not less than four-mil (0.004 inch; 0.102 mm) polyethylene, or other approved methods or materials. Joints in the membrane shall be lapped and sealed in accordance with the manufacturer's installation instructions.

R406.2.2 WALLS. -- Dampproofing materials for walls shall be installed on the exterior surface of the wall, and shall extend from the top of the footing to above ground level.

Dampproofing shall consist of a bituminous material, three pounds per square yard (16N/m<2>) of acrylic modified cement, -inch (3.2 mm) coat of surface-bonding mortar complying with ASTM C 887, any of the materials permitted for waterproofing by Section R406.3.2, or other approved methods or materials.

R406.2.2.1 SURFACE PREPARATION OF WALLS. -- Prior to application of dampproofing materials on concrete walls, holes and recesses resulting from the removal of form ties shall be sealed with a bituminous material or other approved methods or materials. Unit masonry walls shall be parged on the exterior surface below ground level with not less than inch (9.5 mm) of Portland cement mortar. The parging shall be coved at the footing.

Exception: Parging of unit masonry walls is not required where a material is approved for direct application to the masonry.

R406.3 WATERPROOFING REQUIRED. -- Where the groundwater investigation indicates that a hydrostatic pressure condition exists, and the design does not include a groundwater control system as described in Section R406.1.3, walls and floors shall be waterproofed in accordance with this section.

R406.3.1 FLOORS. -- Floors required to be waterproofed shall be of concrete, designed and constructed to withstand the hydrostatic pressures to which the floors will be subjected. Waterproofing shall be accomplished by placing a membrane of rubberized asphalt, butyl rubber, or not less than six-mil polyvinyl chloride with joints lapped not less than six inches (152 mm) or other approved materials under the slab. Joints in the membrane shall be lapped and sealed in accordance with the manufacturer's installation instructions.

R406.3.2 WALLS. -- Walls required to be waterproofed shall be of concrete or masonry and shall be designed and constructed to withstand the hydrostatic pressures and other lateral loads to which the walls will be subjected.

Waterproofing shall be applied from the bottom of the wall to not less than 12 inches (305 mm) above the maximum elevation of the ground water table. The remainder of the wall shall be dampproofed in accordance with Section R406.2.2. Waterproofing shall consist of two-ply hotmopped felts, not less than six-mil (0.006 inch; 0.152 mm) polyvinyl chloride, 40-mil (0.040 inch; 1.02 mm) polymer-modified asphalt, six-mil (0.006 inch; 0.152 mm) polyethylene or other approved methods or materials capable of bridging nonstructural cracks. Joints in the membrane shall be lapped and sealed in accordance with the manufacturer's installation instructions.

R406.3.2.1 SURFACE PREPARATION OF WALLS. -- Prior to the application of waterproofing materials on concrete or masonry walls, the walls shall be prepared in accordance with Section R406.2.2.1.

R406.3.3 JOINTS AND PENETRATIONS. -- Joints in walls and floors, joints between the wall and floor, and penetrations of the wall and floor shall be made watertight utilizing approved methods and materials.

R406.4 SUBSOIL DRAINAGE SYSTEM. -- Where a hydrostatic pressure condition does not exist, dampproofing shall be provided and a base shall be installed under the floor and a drain installed around the foundation perimeter. A subsoil drainage system designed and constructed in accordance with Section R406.1.3 shall be deemed adequate for lowering the groundwater table. R406.4.1 FLOOR BASE COURSE. -- Floors of basements, except as provided for in Section R406.1.1, shall be placed over a floor base course not less than four inches (102 mm) in

thickness that consists of gravel or crushed stone containing not more than 10 percent of material that passes through a No. 4 (4.75 mm) sieve.

Exception: Where a site is located in well-drained gravel or sand/gravel mixture soils, a dedicated drainage system is not required.

R406.4.2 FOUNDATION DRAIN. -- A drain shall be placed around the perimeter of a foundation that consists of gravel or crushed stone containing not more than 10 percent material that passes through a No. 4 (4.75 mm) sieve. The drain shall extend a minimum of 12 inches (305 mm) beyond the outside edge of the footing. The thickness shall be such that the bottom of the drain is not higher than the bottom of the base under the floor, and that the top of the drain is not less than six inches (152 mm) above the top of the footing. The top of the drain shall be covered with an approved filter membrane material. Where a drain tile or perforated pipe is used, the invert of the pipe or tile shall not be higher than the floor elevation. The top of joints or the top of perforations shall be protected with an approved filter membrane material. The pipe or tile shall be placed on not less than two inches (51 mm) of gravel or crushed stone complying with Section R406.4 and shall be covered with not less than six inches (152 mm) of the same material. R406.4.3 DRAINAGE DISCHARGE. -- The floor base and foundation perimeter drain shall discharge by gravity or mechanical means into an approved drainage system that complies with the plumbing subcode.

Exception: Where a site is located in well-drained gravel or sand/gravel mixture soils, a dedicated drainage system is not required."

- 5. Chapter 5, Floors, shall be amended as follows:
- i. In Section R502.11.4, entitled "Truss Design Drawings," the second sentence shall be amended to insert "and truss layout drawings" after "Truss design drawings."
- ii. New Section R502.11.5, entitled "Truss Identification," shall be inserted as follows: "Each truss shall be labeled or otherwise indelibly marked at the factory with the individual truss number as assigned in the truss layout plan. The indelible marking or label shall be located on the bottom chord of the truss, inside the bearing points. When indelible markings are used, each digit shall be not less than one inch high. When labels are used, the label shall be a minimum of five inches by three inches and shall be affixed to the truss by a truss plate. Labels shall remain affixed to the truss."
 - 6. Chapter 6, Wall Construction, shall be amended as follows:
- i. In Figure R602.6.1, Notching and Bored Hole Limitations for Exterior Walls and Bearing Walls, "six-16 penny nails" shall be deleted and "three-8d nails" shall be inserted.
- ii. In Table R602.10.1, Wall Bracing, under the column "Seismic Design Category or Wind Speed," at Category D[1] and D[2], "less than 110 mph" shall be deleted and "less than 120 mph" shall be inserted. In addition, the fourth row of Table R602.10.1 shall be deleted in its entirety.
- iii. Section R606.1.1, Professional registration not required, shall be deleted in its entirety.
 - iv. In Section R611.1, General, the second sentence shall be deleted.
 - 7. Chapter 8, Roof-Ceiling Construction, shall be amended as follows:
- i. In Section R802.10.1, entitled "Truss Design Drawings," the third sentence shall be amended to insert "and truss layout drawings" after "Truss design drawings."
- ii. New Section R802.10.5, entitled "Truss Identification," shall be inserted as follows: "Each truss shall be labeled or otherwise indelibly marked at the factory with the individual truss number as assigned in the truss layout plan. The indelible marking or label shall be located on

the bottom chord of the truss, inside the bearing points. When indelible markings are used, each digit shall be not less than one inch high. When labels are used, the label shall be a minimum of five inches by three inches and shall be affixed to the truss by a truss plate. Labels shall remain affixed to the truss."

iii. Table R802.11, Required Strength of Truss or Rafter Tie-Down Connections to Resist Wind Uplift Forces[a],[b],[c],[d], shall be deleted and the following shall be inserted:

"Required Strength of Truss or Rafter Tie-Down Connections to Resist Wind Uplift Forces<a>,,<c>,<d>(Pounds per tie-down connection)

Design Wind	Total Roof Width Including Overhang (feet)				
Load (psf)d	24	28	32	36	40
20	192	224	256	288	320
30	432	504	576	648	720
40	672	784	895	1,008	1,120
50	912	1,064	1,216	1,368	1,520
60	1,152	1,344	1,536	1,728	1,920
70	1,392	1,624	1,856	2,088	2,320
80	1,632	1,904	2,176	2,448	2,720
90	1,872	2,184	2,496	2,808	3,120

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.0479 kN/m < 2 >, 1 pound = 0.454 kg.

- a. Wind uplift forces are based on 24-inch spacing of roof trusses or rafters. For spacing other than 24 inches, forces shall be adjusted accordingly.
- b. Interpolation is permitted for intermediate values of wind uplift pressures and roof widths.
- c. The rated capacity of approved tie-down devices is permitted to include up to a 60-percent increase for wind effects where allowed by material specifications.
- d. Figure R301.2(4) and Table R301.2(2) shall be used in determining the design wind load."
 - 8. Chapter 10, Chimneys and Fireplaces, shall be amended as follows:
- i. In Section R1001.15, Chimney clearances, Exception 3, "12 inches" shall be deleted and "six inches" shall be inserted.
- ii. In Figure R1001.15, Clearance from Combustibles, "12 IN. MIN." shall be deleted and "6 IN. MIN." shall be inserted.
- iii. In Section R1003.12, Fireplace clearance, Exception 3, "12 inches" shall be deleted and "six inches" shall be inserted.
 - 9. Chapter 11, Energy Efficiency, shall be deleted in its entirety.
 - 10. Chapter 13, General Mechanical System Requirements shall be amended as follows:
 - i. Add new section M1307.5 as follows:

M1307.5 Safety devices and controls. Oil burners, other than oil stoves with integral tanks, shall be provided with means for manually stopping the flow of oil to the burner. Such device or devices shall be placed in a readily accessible location a minimum of 10 feet from the burner. For electrically driven equipment, an identified switch in the burner supply circuit shall be provided at the entrance to the room or area where the appliance is located or, for equipment located in basements, the switch is required to be located at the top of stairs leading to the basement. An identifiable valve in the oil supply line, operable from a location a minimum of 10 feet from the burner, shall be used for other than electrically driven or controlled equipment.

- 11. Chapter 12, Mechanical Administration, shall be amended as follows:
 - i. Section M-1202, Existing Mechanical Systems, shall be deleted in its entirety.
- 12. Part VI, Fuel Gas, shall be amended as follows:
- i. In Section G2402.3, Terms defined in other codes, "ICC Electrical Code, International Building Code, International Fire Code, and International Plumbing Code" shall be deleted and "electrical, building, fire protection, and plumbing subcodes" shall be inserted.
 - ii. Section G2403, entitled "General Definitions" shall be amended as follows:
 - (1) The definition "code" shall be deleted.
- (2) The definition of "code official" shall be deleted and the following shall be inserted: "For the purpose of this subcode, the term 'code official' shall mean the appropriate subcode official as required by N.J.A.C. 5:23-3.4."
- (3) In the definition of "labeled," "authority having jurisdiction" shall be deleted and "construction official" shall be inserted.
- (4) In the definition of "listed," "authority having jurisdiction" shall be deleted and "Uniform Construction Code (N.J.A.C. 5:23)" shall be inserted.
 - iii. Section G2404.5, Repair, shall be deleted in its entirety.
 - iv. In Section G2408.1, General, the second paragraph shall be deleted in its entirety.
 - v. Section G2409, Clearance Reduction, shall be amended as follows:
- (1) In Section G2409.4, Central heating boilers and furnaces, "G2409.4.1 through G2409.4.7" shall be deleted and "G2409.4.1 through G2409.4.5 and G2409.4.7" shall be inserted.
- (2) Section G2409.4.6, Unlisted central heating furnaces, shall be deleted in its entirety.
- vi. Section G2411.2, Liquefied petroleum gas storage, shall be amended as follows: "Delete in its entirety Section 3-2.5, entitled 'Installation of Containers on Roofs of Buildings' in NFPA 58, 1998 Edition. The installation of LP Gas containers on roofs of buildings shall be strictly prohibited." shall be inserted after the first sentence.
 - vii. Section G2413.3, Other materials, shall be deleted in its entirety.
- viii. In Section G2426.5.5, Inspection of chimneys, "clear and free of obstructions" shall be deleted and "inspected in accordance with the chimney certification program as provided for in N.J.A.C. 5:23-2.20(c)" shall be inserted. In the same section, the exception shall be deleted in its entirety.
- 13. Part VII, Plumbing, shall be deleted in its entirety. Plumbing requirements under the scope of this subcode shall be regulated by the plumbing subcode.
- 14. Part VIII, Electrical, shall be deleted in its entirety. Electrical requirements under the scope of this subcode shall be regulated by the electrical subcode.
 - 15. Part IX, Chapter 42, Referenced standards, shall be amended as follows:
- i. Under the subheading, NFPA, "NFPA 13-96, Installation of Sprinkler Systems," shall be deleted and "NFPA 13-99, Installation of Sprinkler Systems; NFPA 13D-99, Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes; and NFPA 13R-99, Installation of Sprinkler Systems in Residential Occupancies Up To and Including Four Stories in Height" shall be inserted.
 - 16. The Appendices shall be amended as follows:
- i. In Appendix A, Sizing and Capacities of Gas Piping, at Letters (e) and (d), "authority having jurisdiction" shall be deleted and "construction official" shall be inserted.

- ii. Appendix D, Recommended Procedure for Safety Inspection of an Existing Appliance Installation: Appendix E, Manufactured Housing Used as Dwellings: and Appendix F, Radon Control Methods, are deleted in their entirety.
- iii. In Appendix G, Section AG102.1, General, the definition of "swimming pool" shall be deleted and the following shall be inserted: "Any structure intended for swimming or recreational bathing that can hold water 24 inches (610 mm) or more in depth. This includes inground, above-ground, on-ground swimming pools, hot tubs, and spas."
- iv. In Appendix G, Section AG105.1, Application, "subject to this code" shall be inserted at the end of the first sentence.
- v. In Appendix G, Section AG105.2, Outdoor swimming pool, Provision 9 shall be deleted in its entirety. In the same section, under Provision 10, Item 10.1 shall be deleted. Item 10.2 shall be renumbered as 10.1 and the last sentence shall be deleted.
- vi. Appendix H, Patio Covers; Appendix I, Private Sewage Disposal; and Appendix J, Existing Buildings and Structures, shall be deleted in their entirety.

N.J.A.C. 5:23-3.22 Fuel gas subcode

- (a) Rules concerning the subcode adopted are as follows:
- 1. Pursuant to authority of P.L. 1975, c.217, the Commissioner hereby adopts the model code of the International Code Council, Inc., known as the International Fuel Gas Code/2003. This code is hereby adopted by reference as the fuel gas subcode for the State of New Jersey subject to the modifications in (b) below.
- i. Copies of this code may be obtained from the International Code Council, 4051 West Flossmoor Road, Country Club Hills, Illinois 60478-5795.
- ii. The International Fuel Gas Code/2003 may be known and cited as the "fuel gas subcode."
- 2. Any references to the International Plumbing Code, ICC Electrical Code, International Energy Conservation Code or the International Existing Building Code listed in Chapter 8 shall be considered a reference to the appropriate adopted plumbing, electrical, or energy subcode in N.J.A.C. 5:23-3 or rehabilitation subcode in N.J.A.C. 5:23-6.
- 3. Anywhere the term "code" appears, shall be a reference to "subcode" as defined in N.J.A.C. 5:23-1.4 for any of the adopted national model codes as appropriate.
- (b) The following chapters, sections or pages of the International Fuel Gas Code/2003 are amended as follows:
 - 1. Chapter 1 of the fuel gas subcode, entitled "Administration" is deleted in its entirety.
 - 2. Chapter 2 of the fuel gas subcode, entitled "Definitions," is amended as follows:
- i. In Section 201.3 delete "ICC Electrical Code, and International Plumbing Code," and insert "electrical subcode and plumbing subcode."
- ii. The definition of the term "alteration" is deleted and the definition found in N.J.A.C. 5:23-1.4 is substituted;
 - iii. The definition of the term "approved" is deleted;
 - iv. The definition of the term "code" is deleted;
- v. The definition of the term "code official" is deleted, and the following language is substituted: "For the purpose of the fuel gas subcode, the term "code official" shall mean the appropriate subcode official as designated in N.J.A.C. 5:23-3.4."
 - vi. The definition of the term "unlisted boiler" is deleted.
 - 3. Chapter 3 of the fuel gas subcode, entitled "General Regulations," is amended as follows:
 - i. Section 301.1 is amended to delete the words "in accordance with Section 101.2."
 - ii. In Section 301.3 delete "in accordance with Section 105."
 - iii. Section 301.9 is deleted.
 - iv. Section 305.1. Delete the second paragraph in its entirety.
- v. Section 307.1 is amended to delete "approved plumbing fixture" on line 3 and insert the following: "drywell, sump pump, floor drain, or drainage system below floor."
 - vi. Section 307.2 is deleted.
- 4. Chapter 4 of the fuel gas subcode, entitled "Gas Piping Installation," is amended as follows:
 - i. Add new Section 401.9 as follows:
- 401.9 Protection from vehicle impact. Gas meters, related regulators and piping that are installed indoors or outdoors and are subject to vehicle impact shall be protected by barriers meeting the requirements of Section 312 of the International Fire Code. For the purpose of applying this

provision, "subject to vehicle impact" shall mean located within three feet of any garage door opening, driveway or designated parking area and not separated by a building wall from the space where a vehicle may be operated.

- (1) Exception: If verification of the installation of an excess flow valve is provided by the gas utility, vehicle impact barriers shall not be required.
- ii. Section 401.2 is amended to add the following: "Delete in its entirety Section 3-2.5 "Installation of Containers on Roofs of Buildings" in NFPA--58, 1998 Edition." Installation of LP-Gas containers on roofs of buildings shall be strictly prohibited.
 - iii. Section 403.3 is deleted.
 - 5. Chapter 5 of the fuel gas code, entitled "Chimneys and Vents," is amended as follows:
- i. In Section 503.5.6 delete "cleaned and free of obstructions" and insert "inspected in accordance with the chimney certification program as provided for in N.J.A.C. 5:23-2.20."
 - ii. Section 503.5.6.1, exception: Delete the exception in its entirety.
 - 6. Chapter 6 of the fuel gas code, entitled "Specific Appliances" is amended as follows:
 - i. Section 623.2 is deleted.
 - ii. Section 623.3 is deleted.
 - iii. Section 627.10 is deleted.
 - 7. Chapter 8 of the fuel gas code, entitled "Referenced Standards," is amended as follows:
 - i. Under the heading "ICC," amend the following titles:
- (1) Delete "IBC--03, International Building Code" and insert "IBC--00, International Building Code."
 - (2) Delete "ICC EC--03, ICC Electrical Code."
 - (3) Delete "IEBC--03, International Existing Building Code."
 - (4) Delete "IECC--03, International Energy Conservation Code."
- (5) Delete "IFC--03, International Fire Code" and insert "IFC--00, International Fire Code."
 - (6) Delete "IPC--03, International Plumbing Code."
- (7) Delete "IRC--03, International Residential Code" and insert "IRC--00, International Residential Code."
- 8. Appendices A, B, and C of the fuel gas subcode are informative and are not part of the subcode itself.
- 9. Appendix D of the fuel gas subcode, entitled "Recommended Procedure for Safety Inspection of an Existing Appliance Installation," is deleted in its entirety.