

Construction Code Communicator



State of New Jersey
 Chris Christie, Governor
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Department of Community Affairs
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Volume 27, Number 3

Fall 2015

Annual Permits - Refresher

Our office has gotten many questions over the past few months about the procedure, conditions and extent of annual permits, so it seems now may be a good time to give everyone a brief refresher. This article is just a summary- the requirements are fairly detailed and can be found in the UCC at N.J.A.C. 5:23-2.14(d) and 5:23-4.18(a)4. and 5.

Many municipal building departments issue annual permits. These permits are usually issued to hospitals and corporate entities with campus-style facilities that perform small construction or maintenance work on a frequent, if not continuous basis. It is important to note that the work performed must be done by qualified, full time employees of the facility, not contracted work for a specific project or projects.

Under these conditions, a local enforcing agency can issue an annual permit for the mutual benefit of the agency and the facility. In other words, the facility does not need to obtain a permit for every single job, but rather, for all the allowable jobs for a given year. They may also apply for an annual permit for just part of the work. The areas for which an annual permit may be granted are: building/fire (those areas are combined for this type of permit), electrical and plumbing. It is important to note that the applicant may apply for only a building/fire annual permit, but elect to apply for a "regular" electrical permit each time one is required. Of course, they may apply for an annual permit that covers all work of a minor nature for the year.

Does that mean that the permit holder gets a "pass" on the work they do? No. As alluded to above, there are conditions of having this special type of permit. First, the permit applicant must name at least one person (but no more than three) responsible for the work in any one given area and name all the people that will be performing the work. The applicant would need to provide some type of documentation to the local enforcing agency that person(s)

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(Annual Permits – Refresher)

named are qualified to perform the work in a code compliant manner; the decision to accept those names is up to the authority having jurisdiction. Also, a log of all work performed under the annual permit must be maintained on site and available for inspection with at least 24 hours' notice. The local enforcing agency issuing the permit must inspect the work at least twice per year with no more than six months between inspections. There are also limits on the type of work that can be performed under the annual permit which would exclude the construction of a new building or any work that would impact life safety systems, as well as lead or asbestos abatement. That list is illustrative, not exhaustive. Please refer to the UCC for the complete list.

So you've gotten a request for an annual permit. What now? The Construction Official would issue the annual permit after first receiving both the annual permit fee, established by the municipality, and the appropriate training fee that must be forwarded to the Licensing & Education office here at DCA. The training fee for these annual permits should not be confused with the permit surcharge fee. It is specific to the issuance of an annual permit. The fee is \$140.00 per subcode area. The Construction Official must also review the scope of work and qualifications of the workers. He or she would then forward a copy of the permit showing the term of the permit and the subcodes for which the permit was issued to both the applicant and to the Licensing & Education office. We would then issue training identification numbers to the individuals named in the permit and they would be required to take at least 5 hours of code training relevant to the area in which they are named in the permit; i.e., carpenters take building, electrical workers take electrical, etc. The workers would complete the training through our code enforcement seminar programs as would any of our inspectors and officials.

The annual permit can be renewed each year. In order to do this, an application, accompanied by the payment of the permit and training fees for the following year, must be submitted to the Construction Official at least 60 days prior to expiration. When that request is received, the Construction Official should contact our office to ensure that the training requirement has been met. If it has and all other conditions of the permit have been met, it can be renewed. If the training has not been met, the permit cannot be re-issued.

Source: John Delesandro
Supervisor, Education and Licensing Units
(609) 984-7834

One- and Two-Family Dwelling Subcode Coastal A Flood Zones Clarification

As you may already know, with the adoption of the 2015 International Residential Code (IRC), Coastal A zone flood hazard requirements now mimic V zone. However, the wording within the IRC can cause some confusion.

Item #1 in Section R322.2.1 (Elevation requirements) states, "Buildings and structures in flood hazard areas, including flood hazard areas designated as Coastal A Zones, shall have the lowest floors elevated to or above the base flood elevation plus 1 foot, or the design flood elevation, whichever is higher."

This implies that Coastal A zone still only requires elevation to the floor level. This is not the case as the charging text, R322.2 (Flood hazard areas--including A Zones) states that Coastal A Zones are subject to the requirements of Section R322.3 (Coastal high-hazard areas--including V Zones and Coastal A Zones, where designated). Therefore, the more restrictive of the section requirements applies.

Section R322.3, as amended by NJAC 5:23-3.21, states, "Buildings and structures constructed in whole or in part in coastal high-hazard areas and coastal A Zones, where designated, shall be designed and constructed in accordance with Section R322.3.1 and ASCE 24."

Lastly, Section 4.4 of the 2014 ASCE 24 states that the lowest floor shall be elevated in conformance with the minimum requirements of Table 4-1. This is where it states that Coastal A zone (along with V zone) is required to have the bottom of the lowest supporting horizontal structural member elevated to base flood elevation + 1 foot or design flood elevation, whichever is higher.

Therefore, even though R322.2.1 states "lowest floor," the charging text of R322.2 sends the user to R322.3 for Coastal A flood hazard zone and the required elevation to bottom of the lowest supporting horizontal member applies.

Source: Rob Austin
Code Assistance Unit
(609) 984-7609

Corrections to the New Jersey Editions of the 2015 International Building and Residential Codes

IBC/2015

1 – Limited Area Sprinkler Systems at Section 903.3.8

Please be advised that there is an error in the New Jersey edition of the 2015 International Building Code (IBC.) The Uniform Construction Code, at N.J.A.C. 5:23-3.14(b)8.xii., indicates that Section 903.3.8, Limited Area Sprinkler Systems, is to be deleted and replaced. The subsections of 903.3.8, which should have been deleted, remain in the printed version of the New Jersey edition. Subsections 903.3.8.1 through 903.3.8.5 should be deleted. These subsections are not included in the IBC as adopted for use in New Jersey.

2 - LULAs, 3,000 sf and Chapter 11 of the IBC/2015

It has come to our attention that there is an error in the text of the recently-adopted amendments to N.J.A.C. 5:23-3.14. Specifically, at N.J.A.C. 5:23-3.14(b)10.vi., the text that we inserted reads as follows:

1104.4.2. Large buildings. Large buildings, defined as those with a total gross enclosed floor area of 10,000 square feet or more, shall provide the accessible building features required of small buildings in Section 1104.4.1. In addition, large buildings shall be required to have an elevator(s) to provide a vertical accessible route between floors; however, in such buildings, floors that are less than 3,000 square feet or floors with only mechanical equipment shall not be required to be served by an elevator.

A subordinate section, 1104.4.2.2, as adopted, would allow the use of a limited use/limited application (LULA) elevator in a large building without restriction. This is contrary to the enabling statute, N.J.S.A. 52:32-5, which sets a 3,000 square feet threshold for providing access, and contradicts the adopted text at N.J.A.C. 5:23-3.14(b)10.xli. which would limit the use of such elevators in large buildings to floors of less than 3,000 square feet. (See Section 1109.7, Exception 2.3 within N.J.A.C. 5:23-3.14(b)10.xli.)

To eliminate this internal contradiction in the adopted rules, and for consistency with the statute, we should have added the 3,000 square feet restriction to Section 1104.4.2.2, as adopted at N.J.A.C. 5:23-3.14(b)10.vi. as follows:

1104.4.2.2 A limited use limited application elevator that complies with ANSI/ASME A17.1 adopted by reference in the building subcode may be used to provide a vertical accessible route to [the] **a** floor or mezzanine, **of less than 3,000 square feet**, provided that the travel distance does not exceed 25 feet.

With the two conflicting rules, the one that limits the use of LULAs to floors or mezzanines of less than 3,000 square feet will govern. We will be submitting a proposed rule amendment to the Office of Administrative Law to clean up this language. In the meantime, code officials should restrict the use of LULAs in large buildings (10,000 sq ft or more) to floors of less than 3,000 sq ft in accordance with Section 1109.7, Exception 2.3 of the New Jersey edition.

IRC/2015

3 – Swimming Pools, Spas and Hot Tubs, Section R326

The amendment at NJAC 5:23-3.21(c)xlvi contain two typographical errors. More specifically, item 5.3 regarding Aquatic Recreation Facilities should read as follows:

5.3 Sections 609.2, Number of fixtures, 609.3, Showers, 609.4, Soap dispensers, [606.5] **609.5**, Toilet tissue holder, 609.6, Lavatory mirror, [606.7] **609.7**, Sanitary napkin receptacles, 609.8, Sanitary napkin dispensers, and 609.9, Infant Care, shall be deleted.

This correction appeared in the November 16, 2015 edition of the *New Jersey Register* [47 N.J.R. 2753(a)]; updated pages within the One- and Two-Family Dwelling Subcode, NJAC 5:23-3.21, will be sent as part of your next update.

All corrections listed above are available on the Division's website. The replacement pages for your loose-leaf NJ IBC and IRC can be found at <http://www.nj.gov/dca/divisions/codes/codereg> as "Corrected pages" under the Building and One- and Two-Family Dwelling Subcodes, respectively.

Source: Code Assistance Unit
(609) 984-7609

2015 IECC Residential Update

So how effective is the move from the 2009 International Energy Conservation Code (IECC) to the 2015 IECC going to be in relation to homes? The short answer per Pacific Northwest National Laboratories (PNNL) is that it'll provide a simple payback of 3.6 years for Zone 4 and just 2.6 years for Zone 5. Of course, there are many assumptions made and many variables considered. For the full report, please visit http://www.pnnl.gov/main/publications/external/technical_reports/PNNL-23940.pdf.

These paybacks are a result of the many updates from the 2009 IECC to the 2012 IECC and again to the 2015 IECC. The following chart demonstrates the major changes in mostly insulation upgrades, but you will also see more controls and tighter homes.

Table 2.1. Comparison of Insulation Requirements Analyzed for the 2009 and the 2015 IECC

Climate Zone	IECC	Ceiling (R-value)	Skylight (U-factor)	Fenestration (Windows and Doors)		Wood Frame Wall (R-value)	Floor (R-value)	Basement Wall (R-value)	Slab* (R-value and depth)
				U-factor	SHGC				
4	2009	38	0.6	0.35	NR	13	19	10/13	10, 2 ft
	2015	49	0.55	0.35	0.40	20	19	10/13	10, 2 ft
5	2009	38	0.6	0.35	NR	20	30	10/13	10, 2 ft
	2015	49	0.55	0.32	NR	20	30	15/19	10, 2 ft

*The first number is R-value. The second value refers to the vertical depth of the insulation around the perimeter.
 NR = not required
 SHGC = solar heat gain coefficient

Table 2.2. Comparison of Additional Code Requirements Analyzed for the 2009 and the 2015 IECC

Measure Description	2009 IECC	2015 IECC
Insulation Requirements for Return Ducts in Attics	R6	R8
Supply ducts in attics	R-8	R-8
Building envelope sealing	Caulked and sealed, verified by visual inspection against a more detailed checklist	Caulked and sealed, verified by visual inspection and a pressure test against a leakage requirement
Ducts and air handlers	Sealed, verified by visual inspection, and pressure tested, or all ducts must be inside building envelope	Sealed, verified by visual inspection, and pressure tested against a leakage requirement, or all ducts must be inside building envelope
DHW Pipe Insulation Requirements	No pipe insulation	R-3 except where pipe run length is below a diameter-dependent threshold Insulated 3/4" pipes Uninsulated 1/2" and kitchen pipes
Demand-Activated Control for Recirculating Systems	No DHW recirculation system	DHW recirculation system included
Outdoor Air Temperature Setback Control for Hot Water Boilers	No setback	Temperature setback based on Outdoor Air Temperature
Certificate of insulation levels and other energy efficiency measures	Yes	Yes
Tested Max Air Leakage Rate (ACH50)	NR	3

Source: PNNL-23940, Battelle

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(2015 IECC Residential Update)

A more specific, but still general, overview of the differences between the editions of the IECC follows:

General Requirements

- Section R401.2 (2009 and 2012) are essentially the same with regard to compliance paths. 2015 adds the energy rating index (ERI) as a third option for compliance that will be found under a brand-new section for 2015: Section R406.
- R402.1 (2009 and 2012) have essentially the same text pertaining to the sections for thermal envelope compliance; however, 2015 allows for the separation of low-energy buildings.
- Sections R402.1.1 through R402.1.5 have been renumbered; there is also a new section and some new text.
- Section R402.1.1 (2009 and 2012) have essentially the same reference to complying with the thermal envelope requirements of Table 402.1.1. This section is replaced in 2015 with new text addressing vapor retarders via Section R702.7 of the International Residential Code or Section 1405.3 of the International Building Code, if applicable. The original text for Section R402.1.1, found in 2009 and 2012, has been shifted to Section R402.1.2 in the 2015.
- Table 402.1.1 "Insulation and Fenestration Requirements by Component" appears in all versions, except that in 2015 it is now labeled Table R402.1.2. The R-value and U-factor requirements have changed between versions, but were not being analyzed as a part of this study.

Specific Insulation Requirements

- Section R402.2 is just a heading in 2009, but in 2012 and 2015 this section addresses insulation requirements.
- R402.2.1: 2009, 2012 and 2015 all include text that addresses exceptions for uncompressed insulation that allows for a reduction in R-value. However, 2015 incorporates a caveat based on a percentage of ceiling area requiring insulation and still allows for a reduction from R-49 insulation level requirements to R-38 if the full height of uncompressed insulation extends over the wall top plate at the eaves. This reduction still does not apply to the U-factor alternative approach.
- Section R402.2.3 (2009) has the same text as Section R402.2.4 in 2012 and 2015 and addresses access hatches and doors from conditioned spaces to unconditioned spaces. For 2015, there is an exception for vertical doors to meet fenestration requirements.
- Section R402.2.3 (2012 and 2015) addresses air permeable insulation. This concept is completely missing from the 2009.
- Section R402.2.4 2009 addresses mass walls much in the same way Section R402.2.5 does for 2012 and 2015. 2015 does add the flexibility of any other wall types that have a specific heating capacity.
- R402.2.5 (2009) and Section R402.2.6 (2012 and 2015) all have similar text regarding steel-framed walls. The label for Table R402.1.3 (U-factor requirements) in 2012 changes to Table R402.1.4 in 2015.
- Section R402.2.6 (2009), Section R402.2.7 (2012) and Section R402.2.8 (2015) are essentially the same text; they pertain to floor insulation being installed to maintain permanent contact with the underside of subfloor decking. However, the 2015 provides an exception depending on assembly.
- Section R402.2.7 (2009) addresses basement wall insulation requirements and is connected to Section R402.2.8 (2012) and Section R402.2.9 (2015).
- For 2015, Section R402.2.7 is new text that addresses continuous insulation and exterior walls.
- Section R402.2.8 (2009) addresses slab-on-grade floor insulation requirements and is connected to Section R402.2.9 (2012) and Section R402.2.10 (2015).
- Section R402.2.9 (2009) addresses crawlspace insulation and sealing. It shifts to Section R402.2.10 (2012) and then to Section R402.2.11 (2015).
- Section R402.2.10 (2009) provides an exception for the horizontal portion of the foundation that supports masonry veneer. This corresponds to Section R402.2.11 (2012) and Section R402.2.12 (2015).
- Section R402.2.11 (2009) pertains to ceiling and wall insulation for thermally-isolated sunrooms. Section R402.2.12 (2012) and Section R402.2.13 (2015) have exceptions that were introduced in the 2012 version.

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(2015 IECC Residential Update)

Fenestration

- Section R402.3 is just a heading in 2009, but in 2012 and 2015 new text has been added to list specific fenestration requirements and sections of the code. This section remains the same across the board except for:
 - Section R402.3.2 (Glazed fenestration SHGC): 2009 and 2012 have the same text; for 2015, dynamic glazing is now included as part of the section.
 - Section R402.3.5 (Thermally isolated sunroom U-factor): All three versions address sunrooms, but with subtle differences across the board.

Air Leakage

- This section is just a heading in 2009, but in 2012 and 2015, new text has been added to list specific code sections that address air leakage reduction requirements. 2009 does not have sections labeled 402.4.1.1 or 402.4.1.2. NJ maintains the 2009 allowance to do a visual inspection, testing method or a combination of the two.
- Section/Table 402.4.1.1 (2012 and 2015) pertains to visual inspection of air sealing, air barriers and insulation installation corresponds to Section/Table R402.4.2.2 (2009) with minor differences.
- Section 402.4.1.2 (2012 and 2015) pertains to envelope testing. There is a subtle difference between 2012 and 2015 in that 2015 specifically states that, if testing is conducted, it should be in accordance with ASTM E779 or E1827.
- The major differences between Section 402.4.2.1 (2009) and Section 402.4.1.2 (2012 and 2015) are the decreases in ACH50 from a base of 7ACH50 for all climate zones in 2009 to 3ACH50 for zones for NJ in 2012 when the testing option is chosen. 2015 is the same as 2012.
- Section R402.4.2 (2009) is just a heading that outlines compliance to either Section 402.4.2.1 (2009) or 402.4.2.2 (2009), which then are shifted to new sections in 2012.
- Section R402.4.3 (2009) addresses wood-burning fireplaces, as does Section 402.4.2 (2012 and 2015); however, gasketed doors are required in 2009, but they are not mentioned in 2012. Fireplace doors reappear in 2015 as an option.
- Section R402.4.4 (2009), which addresses fenestration air leakage, corresponds to Section R402.4.3 (2012 and 2015).
- Section R402.4.5 (2009), which addresses air leakage at recessed lighting installed in the building thermal envelope, corresponds to Section R402.4.4 (2012) and Section R402.4.5 (2015), although some text (“air movement from the conditioned space to the ceiling cavity”) was removed from 2009 to 2012.

The above also applies to the application of the 2015 International Residential Code (IRC) now that Chapter 11 of this code mimics the IECC (each section in the IRC cross references the IECC).

Source: Rob Austin
Code Assistance Unit
(609) 984-7609

Violations Found in Work that Does Not Require a Permit

A question has arisen as to how to handle a violation of the Uniform Construction Code (UCC) when the work itself does not require a permit. As many will remember from their rehab subcode training, the fact that no permit is required does not eliminate the need for a project, however small, to comply with the applicable requirements of the UCC. (See N.J.A.C. 5:23-2.2(b)) The replacement of a toilet in a residence does not require a permit, but the new toilet must be a 1.6 gallon per flush toilet. On a recent trip around town, a code official observed replacement steps being built at the front of a house. This project is considered ordinary maintenance and does not require a permit. But the new steps did not conform to the applicable requirements of the UCC.

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(Violations in Work that Does Not Require a Permit)

How should this be handled administratively? A Notice of Violation and Order to Terminate should be issued to the homeowner. An inspection should be performed to confirm that the violation has been abated within the timeframe specified in the Notice. If the violation has not been abated, then a Notice and Order of Penalty should be issued. If the violation has been abated, then a Certificate of Approval should be issued. A note should be written in the "Description of Work/Use" area on the form describing the work inspected and recording the fact that this Certificate is issued to document the abatement of a violation in work that did not require a permit. Because there is no permit, and the UCC does not contemplate issuance of a certificate unless it is to close out a permit, this is somewhat contrived. But it creates evidence, for the files, of the existence of a violation and its abatement.

Source: Code Assistance Unit
(609) 984-7609

Quarterly State Training Fee Report Information

Most of you know me because I call about monthly building permit reports. You may now get a call from me about training fee (a.k.a. surcharge) reports as well. These reports are submitted quarterly to the DCA along with a check. The report contains the volume of work for new construction and addition permits as well as the dollar amount for alteration permits. The quarterly report should also clearly show the amount of activity exempted from fees.

Here are some tips regarding the quarterly reports:

- The quarterly report and check are due on the 10th of the month after the quarter ends. I will call after a few weeks and a letter will be sent a few weeks after that.
 - The first letter to the Construction Official goes out 45-60 days after the quarter ends.
 - The second letter to the Construction Official and the Mayor goes out about 30 days after the first letter.
- You must send the quarterly report ***and*** the check. If either one is missing, you are delinquent.
- The report must be signed and dated or it will not be accepted.
- ***Do not*** staple the check to the report.
- You can fax or email the report. Make sure you include my attention on the fax.
- ***Do not*** send vouchers. We ***do not*** accept them. They will be returned.
- Current Training Fee Rates:
 - .00371 per cubic foot volume for new construction and addition permits.
 - .0019 per dollar of construction for alteration permits.
 - Demolition permits do not get charged a training fee.
- Check the report before you send it. Do the math. If you have questions, call me. I can explain it to you.
- Try not to combine other things with the quarterly checks. If payments are combined, document them on the check stub.
- Even though the fiscal office may send the check, it is the responsibility of the Construction Official to make sure that the numbers add up and the DCA receives the report and check in a timely manner.
- I am here to help. If you have problems, questions or concerns, then please do not hesitate to call.

Please send the quarterly reports and checks to:

State of New Jersey
Department of Community Affairs
101 S. Broad St.
PO Box 802
Trenton, NJ. 08625
Attn: Charles Pierson Jr.

Source: Charles Pierson Jr.
Division of Codes and Standards, Director's Office
Phone: (609) 292-7899; Fax: (609) 633-6729; Email: Charles.Pierson@dca.nj.gov

Independent Means of Egress for Group R-5 Buildings

The Department has received numerous inquiries regarding the means of egress requirements for Group R-5 buildings. Specifically, the question that arises is: "Can a detached two-family dwelling with a shared common entry foyer as its only means of egress be a Group R-5 occupancy constructed in accordance with the one- and two-family dwelling subcode?"

The answer is: No. If the detached two-family dwelling has a shared common entry foyer as its only means of egress, the occupancy classification is Group R-3; it must comply with the building subcode (N.J.A.C. 5:23-3.14).

In accordance with N.J.A.C. 5:23-3.21(b), the provisions of this subcode shall apply to detached one- and two-family dwellings and townhouses not more than three stories above grade plane in height **with a separate means of egress serving each dwelling unit and their accessory structures**. Furthermore, in Section 310.1 of the 2015 International Building Code (New Jersey Edition), entitled "Residential Group R", a Group R-5 building is defined as "Detached one- and two-family dwellings not more than three stories in height **with a separate means of egress** and multiple single-family townhouses not more than three stories in height **with a separate means of egress** designed **and** constructed in accordance with the one- and two-family dwelling subcode." (emphasis added) Therefore, in order to be a Group R-5 occupancy, each dwelling unit must be provided with an egress door directly to the exterior of the building.

Source: Marcel Iglesias
Code Assistance Unit
(609) 984-7609

Customer Owned Propane Tanks

The propane industry has reported that they have noticed more customer-owned propane tanks. This trend has some code implications. The general case for structures that are supplied with propane is that the propane supplier owns the tank. However, there seem to be three trends that are driving more customers to purchase their own tanks.

The first reason is that, because propane prices have climbed in recent years, customers are more interested in doing comparison shopping. Under New Jersey Law, a propane supplier may not fill a tank that is owned by another supplier. In an effort to be able to buy propane from whomever they want, many consumers are choosing to buy their own tanks. A second trend is the emergence of home generators. In areas without natural gas, generators are often fueled with propane. A third trend is that some of the bigger box stores are now selling propane tanks. This has given consumers more direct access to the product. Up until now, most propane tanks were sold to the customer through the supplier. In many cases, the supplier would then outline the benefits and drawbacks to customer-owned tanks allowing consumers to make a more informed decision about container ownership.

Customer-owned propane tanks are subject to the same code requirements that supplier-owned tanks are subject to. This means that the tank must be marked with "propane" and, for tanks that have a capacity of over 250 gallons, they should also have an emergency contact number on the tank. For underground tanks, the tank must have cathodic protection with a means for periodically testing the system.

In addition, when a customer chooses to own a container, the customer bears the maintenance responsibility for that container. For above ground containers, this means that the container must be properly painted to protect it from external corrosion. Portable containers, which are constructed to the Federal Department of Transportation specifications, must be periodically tested and recertified. Other items that often need to be periodically maintained are the rain cap for the relief valve outlet (this is usually a rubber cap that goes over the relief valve to keep ice and debris from clogging the relief valve outlet), and the foundation for the container (for smaller containers these foundations do not extend below the frost line and may settle over time). Underground tanks, as mentioned above, must have a cathodic protection system which is subject to periodic testing requirements. Therefore, the customer must arrange for the containers cathodic protection system to be periodically tested. Customer-owned tanks must also comply with the placement requirements of the code and must be the proper distance from buildings, building openings and ignition sources such as air conditioners, electric meters, etc.

Questions that consumers have about their responsibilities for the LPG tank that they own can be directed to the Department of Community Affairs LP-Gas Safety Unit at (609) 633-6224.

Source: LP-Gas Safety Unit
Bureau of Codes Services

Accessible and Type A Dwelling Units

How many Type A dwellings units are required in a building with four or more dwelling units? What features may be adaptable within the Type A dwelling unit? These questions continue to be asked of the Code Assistance Unit. Let me take this opportunity to straighten out the requirements for accessible and Type A dwelling units.

New code, new code references.

With the adoption of the International Building Code/2015 (IBC/2015), Chapter 11 has become the Barrier Free Subcode. The previous amendments at NJAC 5:23-7.1 through 7.14 have now been incorporated into NJAC 5:23-3.14 to complete New Jersey's accessibility requirements with Chapter 11 of the IBC/2015 (minus the recreation portions in NJAC 5:23-7.16 through 7.32).

What is the difference between accessible and Type A?

A Type A dwelling unit is a dwelling unit that meets Section 1003 of the ICC/ANSI A117.1-2009 (ANSI/2009), as amended by Chapter 11 of the IBC/2015 at NJAC 5:23-3.14(b)10. This unit is a dwelling unit with an accessible entrance, accessible clear floor space, and accessible route into and through the dwelling unit, and adaptable features in the kitchen and bathroom. A combination of Chapter 11 of the IBC/2015 and the ANSI/2009 specify that a Type A dwelling unit must have (1) an accessible entrance, (2) an accessible interior route throughout the dwelling unit, (3) one full adaptable bath on an accessible route, (4) maneuvering space at all doors, and (5) adaptable features in the kitchen and bathroom.

An accessible dwelling unit is a dwelling unit that meets Section 1002 of ANSI/2009. As with a Type A dwelling unit, an accessible dwelling unit must have an accessible entrance and an accessible route into and throughout the dwelling unit. In an accessible dwelling unit, however, the toilet and bathing facilities must comply with general requirements for toilet room and bathing facilities that are in ANSI/2009, Section 603 through Section 610 inclusive. Similarly, kitchens are required to comply with the general requirements in ANSI/2009 at Section 804, kitchens and kitchenettes, and must also provide one 30-inch long work surface that meets the requirements of Section 902, dining surfaces and work surfaces, regarding clear floor space and height. Finally, storage facilities must also meet the general requirements in ANSI/2009, which are at Section 905, for clear floor space, height and operable controls.

Which dwelling units are required to be adaptable?

1. In a building with four or more dwelling units, if the building has an elevator, all (100 percent) of the dwelling units must be Type A. [IBC/2015, Sections 1107.6.2, 3 and 4]
2. In a building with four or more dwelling units, if there is no elevator, all (100 percent) of the ground-floor dwelling units must be Type A. [IBC/2015, Sections 1107.6.2, 3 and 4]
3. Ground-floor dwelling units: In a building with dwelling units, the first floor containing dwelling units must be accessible and must contain Type A dwelling units, regardless of whether that floor is at grade. [IBC/2015, Sections 1107.6.2, 3 and 4] Keep in mind, a building may have more than one ground floor due to sloping grade.
4. Generally speaking, townhouses are exempt from Chapter 11 of IBC/2015. There is one exception: Townhouses for which credit as a low or moderate income unit (COAH credit) is awarded are required to comply—and are discussed below. A townhouse is a single dwelling unit with two or more stories of dwelling space, exclusive of basement or attic, where each dwelling unit extends from foundation to roof. This dwelling unit is to have an independent entrance that serves one dwelling unit only and that is at or near grade; most or all of the sleeping rooms are on one story; and most or all of the remaining habitable space, such as kitchen, living, and dining areas, are on another story. [IBC/2015, Sections 1103.2.3.1 and 1107.6.5]
5. What level of accessibility is required for a townhouse that has "COAH credit?" When a townhouse, or a multistory dwelling with fewer than four dwelling units in a single structure, is being constructed with credit as low or moderate income housing, the dwelling unit must comply with the Chapter 11 of IBC/2015. There are two unique requirements that apply to these buildings: each dwelling unit must have a room that could be used as a bedroom

(continued next page)

(Accessible and Type A Dwelling Units)

on the entry level; and they may have either an accessible or an adaptable entrance. If an adaptable entrance is provided, the plans for making the adaptation to an accessible dwelling unit must be submitted and released through the standard plan review process. The funds to effect the adaptation of 10% of the entrances that are not accessible must be escrowed with the municipality. *Note: COAH is part of the Fair Housing Act Administration and can be reached by visiting <http://www.nj.gov/dca/services/lps/hss>, phone at (609) 292-3000 or email at LPSmail@dca.state.nj.us.*

What features in the kitchen may be adaptable?

1. Adaptable work surface: There must be a 30-inch length of counter that is either set at 34 inches or that can be adjusted to an accessible height. The base cabinets in this section must be removable and the floor must be finished all the way to the wall. The 30-inch section of the counter does not have to be precut; it can be "replaceable as a unit." This means that it must be able to be cut and either lowered or replaced. [ANSI/2009, Sections 1003.12.3.1 and 1003.12.3.2, as amended at IBC/2015, Section 1101.2, items 15 & 16]
2. Kitchen cabinets: Exempt as per the exception at ANSI/2009, Section 1003.14.
3. Kitchen sink: This is almost a combination of the above two. The cabinets below the sink must be removable and the floor must be finished all the way to the wall. Also, the sink and the counter are required to be adjustable or replaceable as a unit to an accessible height provided; rough-in plumbing that allows connections of supply and drain piping for sinks mounted at heights of 29 inches must be provided. [ANSI/2009, Sections 1003.12.4.1 and 1003.12.4.2, as amended at IBC/2015, Section 1101.2, items 17 & 18]

What features in the bathroom may be adaptable?

1. At least one bathroom on the accessible route is to comply with ANSI/2009, Section 1003.11.2. In all bathrooms, grab bars do not have to be installed, but the wall must be reinforced to permit their later installation as per ANSI/2009, Section 1003.11.1; this applies to shower seat reinforcement also.
2. The threshold in a transfer shower may be adaptable as long as the adaptation can be made easily without undertaking a construction project. [ANSI/2009, Sections 1003.11.2.5.2, as amended at IBC/2015, Section 1102.1, item 14.2]
3. The mirror may be installed at a standard height as long as it is attached in such a way that it can be lowered without damaging the wall. Since the words "accessible lavatory" are used. The 40" maximum is not required until the lavatory is made accessible. [ANSI/2009, Section 1003.11.2.3]
4. A vanity may be installed underneath the lavatory as long as it can be removed without requiring the removal or replacement of the lavatory. [ANSI/2009, Section 1003.11.2.2]

Maneuvering Space at Doors.

There have been some projects that have been brought to the Department of Community Affairs' attention in which no maneuvering space has been provided at doors. Maneuvering space is critical to the usability of the dwelling unit. The requirements can be found in Section 1003.5, which requires compliance with Section 404, minus six exceptions.

In short, only those features that are provided with adaptive options may be adapted.

Lastly, please note that there is no reference to Type B dwelling units within this article. This is because the allowance of this type of dwelling unit is not permitted by NJAC 5:23.

Source: Rob Austin
Code Assistance Unit
(609) 984-7609

Foundations in Coastal A Flood Zones

The adoption of the 2015 International Residential Code (IRC) has aligned the requirements for Coastal A flood hazard zones with V flood hazard zones. This was already the case for International Building Code (IBC) structures prior to the adoption of the 2015 edition. In either code, the ASCE 24-2014 should be used in the design of the structure's foundation.

Typical foundations in Coastal A and V flood hazard zones will result in piles being installed. This will always be the case in V flood hazard zones since the National Flood Insurance Program (NFIP) rules require the foundation to be open (minus breakaway walls). The NFIP rules, however, do not require a foundation in the Coastal A flood hazard zone to be open. This means that, if someone wanted a shallow foundation constructed of masonry in lieu of a pile foundation, it is still possible per Section 4.5.1.2 of the ASCE 24-2014.

Whether or not a shallow masonry foundation in a Coastal A flood hazard zone is cost effective (versus a pile foundation) is not a code question. But if this type of shallow foundation is chosen, it must have sufficient strength to resist the anticipated combination of flood loads, including the hydrostatic, hydrodynamic, wave and debris loads.

Source: Rob Austin
Code Assistance Unit
(609) 984-7609

Lateral Deck Connection: Reminder – UPDATE

It has come to the Department's attention that there has been some confusion as to when lateral deck load connections, like the ones illustrated in Figures R507.2.3(1) and R507.2.3(2) of the International Residential Code/2015 (IRC/2015), are required.

The specific deck attachments for lateral loads demonstrated in these figures, as referenced by Section R507.2, Deck ledger connection to band joist, of the IRC/2015, are not required. These figures are rooted in Federal Emergency Management Agency (FEMA) Publication 232, entitled "Homebuilders' Guide to Earthquake Resistant Design and Construction," and are linked to a seismic requirement. As amended by NJAC 5:23-3.21, Section R301.2.2, Seismic provisions, of the IRC/2009, states "Detached one- and two- family dwellings and attached single family townhouses are exempt from the seismic requirements of this code."

Based on this, these lateral deck attachments are not required for a detached one- or two- family dwelling or attached single family townhouse in New Jersey that is designed and built in accordance with the IRC/2015. However, decks supported by attachment to an exterior wall must be positively anchored to the primary structure and designed for both vertical and lateral loads as per the Section R507.2, Decks. The specific details from R507.2.3(1) and R507.2.3(2) are one means to comply with this requirement, but they are not the only option.

Source: Marcel Iglesias
Code Assistance Unit
(609) 984-7609

Buildings/Structures Subject to Wind-Borne Debris & Hurricane-Prone Regions Requirements

As reported in the Spring 2015 edition of the Construction Code Communicator, the adoption of the 2015 International Building Code (IBC) and International Residential Code (IRC) has placed New Jersey outside the zone(s) for needing opening protection in accordance with Sections 1609.1.2 and R301.2.1.2, respectively. This is true for all residential and general use commercial buildings. However, the opening protection requirements of Section 1609.1.2 still apply to buildings/structures listed in Table 1604.5. Health care facilities in "Risk Category III" and all buildings in "Risk Category IV" within one mile of the mean high water line of the Atlantic Ocean and having an ultimate design wind speed of 130 miles per hour or greater are required to have openings that are protected from wind-borne debris. These buildings are typically hospitals, emergency management facilities, etc.

Source: Code Assistance Unit
(609) 984-7609

Enclosed Space Beneath One- and Two-Family Dwellings

A new requirement is now in place in the one-and two-family dwelling subcode at Section R302.13, "Fire Protection of Floors," of the International Residential Code/2015 (IRC/2015). Where floor assemblies are not required to be fire-resistance rated elsewhere in the code, they must be protected in accordance with this new section. In short, these floors must be protected with 1/2-inch gypsum wallboard, 5/8-inch wood structural panels or an equivalent that is attached to the underside of the floor framing member.

The code allows many different penetrations or openings. See Section R302.13 for a full list.

The following are four conditions that would not require protection on these floor assemblies:

1. When the space underneath is protected with Section P2904, NFPA 13D or an equivalent fire sprinkler system.
2. Spaces located directly over a crawl space not intended for storage or fuel-fired appliances.
3. Portions can be unprotected where the aggregate area of the unprotected portions does not exceed 80 square feet per story or when fireblocking is installed in accordance with Section R302.11.1 along the perimeter of the unprotected portion to separate it from the rest of the floor.
4. When dimensional lumber or structural composite lumber that is at least 2-inch by 10-inch nominal dimension, or other approved floor assemblies demonstrating equivalent fire performance are installed.

Historically, the floor-types that this really applies to are located above basements and crawlspaces. Based on this, a situation has come to our attention with homes that are requiring elevation due to flood plain requirements (homes constructed on piles). What happens when walls are constructed, solid or breakaway type (both with flood vents)? The same protection of the floor assembly addressed above is required when any area is fully enclosed and the area is over 80 square feet. Only the area of the fully- enclosed space (inside the four (4) walls) is required to be protected, not the entire space below the elevated home. When the space under the house is completely enclosed, the entire floor assembly will require this membrane protection. When the entire area under the elevated home is open, no protection is required per this section.

What if the space created constitutes a garage or carport?

We already know from above that fully-enclosed spaces require protection pursuant to R302.13 unless one of the exceptions above is met. But when this space is used for parking, we need to take another look at the code requirements.

Diving in further, we must look at Section R302.6, Dwelling-garage fire separation, and Section R309, Garages and carports. As per Section R309.2, a carport is a parking area for automobiles or other vehicles, including watercraft, enclosed by two or fewer walls; when a third wall is proposed, the parking area is now a garage. In new construction, this garage would no longer need to meet R302.13. As stated above, R302.13 applies to assemblies that are not required to be fire-resistance rated elsewhere in the code. The garage would be subject to the requirements of Section R302.6 and would require a one-hour floor/ceiling rating created by a listed assembly or by compliance with Formal Technical Opinion (FTO)-13. Those existing homes being elevated to a mean height over 35 feet would also have to meet the one-hour rating or FTO-13 per Bulletin 13-1A.

Links to references above:

- o IRC/2015 (R302, R309, P2904) -- http://codes.iccsafe.org/app/book/toc/2015/New_Jersey/residential/index.html
- o NFPA 13D -- <http://www.nfpa.org/codes-and-standards/free-access>
- o FTO-13 -- http://www.nj.gov/dca/divisions/codes/publications/pdf_fto/fto_13.pdf
- o Bulletin 13-1A -- http://www.nj.gov/dca/divisions/codes/publications/pdf_bulletins/b13_1A.pdf

Source: Michael Whalen
Code Assistance Unit
(609) 984-7609

Bulletin/FTO Update

With the adoption of the 2015 I-Codes and the 2014 NEC, we currently are in the process of reviewing all the UCC Bulletins and Formal Technical Opinions (FTO) and updating them, as needed. The newest and revised bulletins are:

- 15-4 -- Energy Subcode Compliance
- 15-3 -- Group Designations for Residential & Institutional Occupancies
- 15-2 -- Adopted Codes, Standards and Recommended Practices Referenced Under Informational Notes of the National Electrical Code 2014
- 05-2 -- Seismic Hazard Maps
- 03-5 -- Special Inspections
- 03-4 -- Wind Speed Maps
- 94-8 -- Ground Snow Loads

These are just the ones we know for sure are new or are being revised. There may be more, but only time/review will tell.

NOTE: Bulletins and FTOs that have updated code references will not be republished and will be posted on our web site only. Bulletins and FTOs that are new or need extensive revisions will be mailed as part of your update package through the subscription service at a later date and placed on our web site.

As always, each bulletin and FTO will be placed on the Internet, complete with up-to-date code references and new revised dates or updated code reference dates, so you can tell what is old, what is new, or what was updated to reflect current model codes. So please visit <http://www.nj.gov/dca/divisions/codes/resources> and view, print, download, etc. the revised/updated bulletins and FTOs to update your UCC.

Source: Code Assistance Unit
(609) 984-7609

Chimney Liner Requirement – Rehab

The Code Assistance Unit has received many questions regarding whether a chimney liner is required when a furnace, boiler or water heater is replaced in a one- or two-family dwelling.

Replacing a furnace, boiler or water heater in an existing one- and two- family dwelling falls under the Rehabilitation Subcode, NJAC 5:23-6; this work is typically classified as “Renovation” by definition. More specifically, NJAC 5:23-6.5(h) refers you to NJAC 5:23-6.8, the Residential Materials and Methods. Here, you find that NJAC 5:23-6.8(h)14 requires compliance with all portions of Chapter 24 from the 2009 International Residential Code (IRC) that pertains to gas equipment and there are many sections that refer to resizing chimneys when equipment is replaced or removed.

A specific example from the IRC is Section G2425.15.1. Here it states, “The chimney or vent shall be resized as necessary to control flue gas condensation in the interior of the chimney or vent and to provide the appliance or appliances served with the required draft.”

The problem is there are no chimney or vent sizing tables that deal with exterior chimneys in the IRC. Luckily, the International Code Council was smart enough to link the IRC to the 2009 International Fuel Gas Code (IFGC) in this manner. Here, Section G2401.1 of the IRC states in the third paragraph, “The omission from this chapter of any material or method of installation provided for in the International Fuel Gas Code shall not be constructed as prohibiting the use of such material or method of installation. Fuel-gas piping systems, fuel-gas appliances and related accessories, venting systems and combustion air configurations not specifically covered in these chapters shall comply with the applicable provisions of the International Fuel Gas Code.” Therefore, in order to resize the exterior chimney, Tables 504.3(6a) (6b) or 504.3 (7a) or (7b) in the IFGC should be used.

When the contractor signs the “Chimney Verification” form, he/she is indicating that the existing chimney is in good physical condition and is appropriately sized. When this form is submitted to the construction office and the form indicates that there is an existing exterior chimney, that should raise a flag that a chimney liner would be required.

Liner resizing is important due to equipment today being more efficient when it comes to exterior chimneys. Less heat and draft up the chimney tend to cause a condensation problem.

Note that an interior chimney generally does not lead to a condensation problem because it is located in a conditioned area.

Source: Thomas C. Pitcherello
Code Assistance Unit
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New Jersey Code Adoptions -- Elevator Safety Subcode

The following chart gives the adoption dates and the editions of the codes and standards used in connection with the Elevator Safety Subcode. Most recently, the International Building Code/2015 has been adopted as of September 21, 2015 and the newest elevator, dumbwaiter and conveyor standards may be used as shown in the table below. As with any code adoption, a six-month grace period starts the day of the adoption allowing the old codes to be used as long as a complete permit application is submitted before the grace period ends (i.e. March 20, 2015 is the last day for submittal under the old codes).

Edition Date for Building Subcode	Effective Date for Model Codes	BOCA/IBC Number for Elevators, Dumbwaiters, and Conveyor Equipment	ANSI A17 Safety Standard for Elevators and Escalators	ANSI A90.1 Safety Standard for Belt Manlifts	ASME A18.1 and A18.1a Safety Standard for Platform Lifts and Stairway Chairlifts
1975	01/01/77	16	A17.1 - 1971; A17.1a - 1972; A17.1b - 1973	A90.1-1969	
1976/S	12/01/77	16	A17.1 - 1971; A17.1a - 1972; A17.1b - 1973; A17.1c - 1974; A17.1d, e, f - 1975	A90.1 - 1969; A90.1a - 1972	
1978	10/01/78	16	A17.1 - 1971; A17.1a - 1972; A17.1b - 1973; A17.1c - 1974; A17.1d, e, f - 1975	A90.1 - 1969; A90.1a - 1972	
1981	05/07/81	21	A17.1 - 1978	A90.1 - 1976	
1983/AS	02/22/83*	21	A17.1 - 1981	A90.1 - 1976	
1984	08/06/84	21	A17.1 - 1981; A17.1a - 1982	A90.1 - 1976	
1985/S	04/01/85	21	A17.1 - 1984	A90.1 - 1976	
1986/AS	09/22/86	21	A17.1 - 1984	A90.1 - 1976	
1987	04/01/87	26	A17.1 - 1984 and 1985 Supplement	A90.1 - 1985	
1988/S	06/20/88	26	A17.1 - 1984 and 1985 Supplement	A90.1 - 1985	
1989/AS	11/01/89	26	A17.1 - 1987	A90.1 - 1985	
1990	07/01/90	26	A17.1 - 1987	A90.1 - 1985	
1991/S	03/04/91	26	A17.1 - 1987		
1993	05/01/93	Chapter 30	A17.1 - 1990	A90.1 - 1985	
1996	07/06/98	Chapter 30	A17.1 - 1993 and 1994, 1995 Supplements	A90.1 - 1992	
IBC-2000 NJ Edition	05/05/03	Chapter 30	A17.1 - 1996 and 1997, 1998 Supplements	A90.1 - 1997	A18.1 - 1999 and A18.1a - 2001
IBC-2006 NJ Edition	02/20/07	Chapter 30	A17.1- (2004-2005), including A17.1.S-2005	A90.1-2003	A18.1-2003
IBC-2009 NJ Edition	09/07/10	Chapter 30	A17.1-2007	A90.1-2003	A18.1-2005
IBC-2015 NJ Edition	09/21/15	Chapter 30	A17.1-2013	A90.1-2009	A18.1-2008

S = Supplement

AS = Accumulative Supplement

* = Operative date

(continued next page)

(New Jersey Code Adoptions -- Elevator Safety Subcode)

Note: The grace period is covered at N.J.A.C. 5:23-1.6(a).

- 1) Consult construction files to determine under which elevator or building code the permit was issued;
- 2) The following provides guidance on how to determine the applicable ASME A17.1 or ASME A90.1 codes (editions/supplements) when this information is not available for existing elevator devices. When performing cyclical inspections, if the permit — or installation — date precedes or is within the grace period, apply the code edition immediately preceding the adoption of the new subcode. Example: A permit was issued on May 15, 1987. If the construction file does not have the information about the edition of the standard used, then ANSI A17.1 - 1984 is enforced. If the permit was issued on November 16, 1987, ANSI A17.1 - 1984 with the 1985 supplement applies.

Source: Paulina Caploon
Elevator Safety Unit
(609) 984-7833

Guide to Free Electronic Downloads of Steel Standards Referenced in IBC and IRC

This guide is designed to help an individual or jurisdiction obtain free electronic downloads of the various steel standards that are referenced in the International Building Code (IBC) and International Residential Code (IRC). Listed below are the standards developing organizations (SDOs) that have their standards referenced in the IBC or IRC, along with a link to their documents. Please note that some SDOs may require the individual or jurisdiction to provide information prior to being able to download standards. Also, some SDO web pages provide errata and other useful information. Please take advantage of this opportunity. *Note: Not all standards are available for free download at this time.*

AISC



American Institute of Steel Construction
One East Wacker Drive, Suite 700
Chicago, IL 60601-18021
www.aisc.org
www.aisc.org/specifications

RMI



Rack Manufacturers Institute
8720 Red Oak Boulevard, Suite 201
Charlotte, NC 28217
www.mhi.org
www.mhi.org/publications

AISI



American Iron and Steel Institute
25 Massachusetts Avenue, NW, Suite 800
Washington, DC 20001
www.steel.org
www.aisistandards.org

SDI



Steel Deck Institute
P. O. Box 426
Glenshaw, PA 15116
www.sdi.org
www.sdi.org/publications-2/standards

NAAMM



National Association of Architectural Metal Manufacturers
800 Roosevelt Road, Bldg. C, Suite 312
Glen Ellyn, IL 60137
www.naamm.org
www.naamm.org/amp/amp_technical_literature.aspx

SJI



Steel Joist Institute
234 W. Cheves Street
Florence, SC 29501
www.steeljoist.org
www.steeljoist.org/ansi

Source: American Iron and Steel Institute, www.steel.org

Updated: October 29, 2015

2015 I-Code Flood Hazard Construction

Previous editions of the International Building Code and Residential Code (IBC and IRC, respectively) adopted by New Jersey differed in flood resistant standards regarding Coastal A flood zones. With the adoption of the 2015 edition of these codes on September 21, 2015, the Coastal A flood zone is one and the same regardless of whether the project is under the IBC or the IRC. The 2015 IRC has now aligned its Coastal A flood zone requirements with the V flood zone requirements (this was already the case in previous editions of the IBC). In short, whether using the 2015 IBC or IRC, a foundation in a Coastal A flood zone is required to meet the same requirements as a V zone.

The rule applies to new construction and those property owners whose properties were “substantially damaged.” A structure is considered substantially damaged if the cost of restoration equals or exceeds 50 percent of the market value of the structure prior to the damage; this determination is made by the local floodplain administrator.

Keeping in mind that DEP’s existing rules already contain a mandatory 1-foot freeboard*, which is maintained within NJAC 7:13, and applies to the lowest floor of the home or building, the question remains, how does this interface with the Uniform Construction Code (UCC), NJAC 5:23? The quick answer is to see your local floodplain administrator as he or she will let you know the elevation and the flood zone applicable to the home or building in question. Under the UCC, this is handled through the prior approval process. However, you should know that the DEP rules only use “lowest floor” and the UCC, by means of referenced model codes and standards, uses this term and “lowest supporting horizontal structural member”. This may seem confusing, but hopefully, this boiled-down version of the interaction between rules is helpful.

* Note – Freeboard is a factor of safety usually expressed in feet above a flood level for purposes of floodplain management. (<http://www.fema.gov/freeboard>)

Combining DEP’s rules and the UCC’s existing requirements essentially means you are looking at the more stringent requirements of the two to determine the Design Flood Elevation (DFE). Therefore, the breakdown of the elevation requirements in a flood zone per the 2015 IBC and IRC is as below.

		IRC ^a	IBC ^b			
			Cat 1	Cat 2	Cat 3	Cat 4
A zone	Elevation of the lowest floor ^c	BFE +1 ft	BFE +1 ft	BFE +1 ft	BFE +1 ft	BFE +2 ft
Coastal A zone and V zone	Elevation of the bottom of lowest supporting horizontal structural member of lowest floor ^c	BFE +2ft ^d	BFE +1ft ^d	BFE +2 ft ^d	BFE +3 ft ^d	BFE +3 ft ^d

a – Per Sections R309.3/IRC and R322.2.2/IRC and Section 1.5.2/ASCE 24 , attached and detached enclosed areas used solely for parking of vehicles, building access or storage may be below the BFE.

b – Category classifications are from Table 1-1 of the ASCE 24-14 (see following page).

c – Minimum elevations are based on the model codes adopted by NJAC 5:23, in combination with NJAC 7:13; municipalities may adopt local ordinances for greater freeboard which increases the DFE.

d – If the lowest horizontal structural member is at least 1 ft in height, a reduction of 1 ft in freeboard is permitted (DEP’s rules only spec out “lowest floor + 1ft” & do not speak to lowest horizontal member).

There actually are three entities involved in the enforcement of requirements for elevation of structures in identified flood hazard areas:

- The local floodplain administrator is responsible for the enforcement of the municipal flood ordinance. These ordinances are adopted as a condition of the municipality’s participation in the National Flood Insurance Program. (It should be noted that municipalities may choose to adopt requirements for higher elevations.) DEP provides a model flood ordinance at: <http://www.nj.gov/dep/floodcontrol/modelord.htm>.
- DEP is responsible for enforcement of the State’s Flood Hazard Area Control Act rules, NJAC 7:13. Under NJAC 7:13, if a home or building is being raised or reconstructed in the original footprint, DEP’s “permit by rule” allows construction to proceed without a separate review or approval from DEP. This same rule allows for an increase in the footprint of up to 300 square feet under the permit by rule provisions, which is helpful In terms of additional steps or ramps necessary to access elevated buildings. Other construction in a flood hazard area requires approval from DEP.

(continued next page)

(2015 I-Code Flood Hazard Construction)

- The local construction official is responsible for enforcement of the UCC, including the elevation requirements described above.

ASCE 24-14 Table 1-1, Flood Design Class of Buildings and Structures	
Flood Design Class	Use or Occupancy of Buildings and Structures
1	Buildings and structures that normally are unoccupied and pose minimal risk to the public or minimal disruption to the community should they be damaged or fail due to flooding. Flood Design Class 1 includes: (1) temporary structures that are in place for less than 180 days; (2) accessory storage buildings and minor storage facilities (does not include commercial storage facilities); (3) small structures used for parking of vehicles; and (4) certain agricultural structures. [Note (a)]
2	Buildings and structures that pose a moderate risk to the public or moderate disruption to the community should they be damaged or fail due to flooding, except those listed as Flood Design Classes 1, 3, and 4. Flood Design Class 2 includes the vast majority of buildings and structures that are not specifically assigned another Flood Design Class, including most residential, commercial, and industrial buildings
3	Buildings and structures that pose a high risk to the public or significant disruption to the community should they be damaged, be unable to perform their intended functions after flooding, or fail due to flooding. Flood Design Class 3 includes: (1) buildings and structures in which a large number of persons may assemble in one place, such as theaters, lecture halls, concert halls, and religious institutions with large areas used for worship; (2) museums; (3) community centers and other recreational facilities; (4) athletic facilities with seating for spectators; (5) elementary schools, secondary schools, and buildings with college or adult education classrooms; (6) jails, correctional facilities, and detention facilities; (7) healthcare facilities not having surgery or emergency treatment capabilities; (8) care facilities where residents have limited mobility or ability, including nursing homes but not including care facilities for five or fewer persons; (9) preschool and child care facilities not located in one- and two-family dwellings; (10) buildings and structures associated with power generating stations, water and sewage treatment plants, telecommunication facilities, and other utilities which, if their operations were interrupted by a flood, would cause significant disruption in day-to-day life or significant economic losses in a community; and (11) buildings and other structures not included in Flood Design Class 4 (including but not limited to facilities that manufacture, process, handle, store, use, or dispose of such substances as hazardous fuels, hazardous chemicals, hazardous waste, or explosives) containing toxic or explosive substances where the quantity of the material exceeds a threshold quantity established by the authority having jurisdiction and is sufficient to pose a threat to the public if released. [Note (b)]
4	Buildings and structures that contain essential facilities and services necessary for emergency response and recovery, or that pose a substantial risk to the community at large in the event of failure, disruption of function, or damage by flooding. Flood Design Class 4 includes: (1) hospitals and health care facilities having surgery or emergency treatment facilities; (2) fire, rescue, ambulance, and police stations and emergency vehicle garages; (3) designated emergency shelters; (4) designated emergency preparedness, communication, and operation centers and other facilities required for emergency response; (5) power generating stations and other public utility facilities required in emergencies; (6) critical aviation facilities such as control towers, air traffic control centers, and hangars for aircraft used in emergency response; (7) ancillary structures such as communication towers, electrical substations, fuel or water storage tanks, or other structures necessary to allow continued functioning of a Flood Design Class 4 facility during and after an emergency; and (8) buildings and other structures (including, but not limited to, facilities that manufacture, process, handle, store, use, or dispose of such substances as hazardous fuels, hazardous chemicals, or hazardous waste) containing sufficient quantities of highly toxic substances where the quantity of the material exceeds a threshold quantity established by the authority having jurisdiction and is sufficient to pose a threat to the public if released. [Note (b)]
Note (a) - Certain agricultural structures may be exempt from some of the provisions of this standard; see ASCE 24-14 Section C1.4.3. Note (b) - Buildings and other structures containing toxic, highly toxic, or explosive substances shall be eligible for assignment to a lower Flood Design Class if it can be demonstrated to the satisfaction of the authority having jurisdiction by a hazard assessment as described in ASCE 7-10 Section 1.5.3 of Minimum Design Loads for Buildings and Other Structures that a release of the substances is commensurate with the risk associated with that Flood Design Class.	

If you have any questions, please contact me at (609) 984-7609.

Source: Rob Austin
Code Assistance Unit

The Construction Code Communicator is an online publication of the New Jersey Department of Community Affairs' Division of Codes and Standards. It is typically published four times a year.

Copies may be read or downloaded from the division's website at: www.nj.gov/dca/divisions/codes.

Please direct any comments or suggestions to the NJDCA, Division of Codes and Standards, Attention: Code Development Unit, PO Box 802, Trenton, NJ 08625-0802 or codeassist@dca.nj.gov.

Non-Cooktop Type Kitchens in Commercial Settings

Well, no one is perfect. With the adoption of the 2015 I-Codes, it looks as if we may have missed a few items. Regarding kitchens and kitchenettes in a commercial setting, NJAC 5:23-7.2(b)21 used to state: "In section 804.4, entitled "Sinks," add the following: "Exception: In spaces that do not provide a cooktop or conventional height of 36 inches; a parallel approach must be provided."

It has been brought to our attention that this exception did not make it into the amendments listed at NJAC 5:23-3.14(b)10ii for the changes to Chapter 11 of the International Building Code/2015 and the ICC/ANSI A117.1-2009. This will most likely affect, for example, break room kitchenettes and the like.

We plan to move a proposal to restore this exception. In the interim once the grace period has expired (March 21, 2016), applicants may wish to request a variation based on the old exception and the Department's intent to continue it.

This correction will be added to the list of corrections seen earlier on page 3. Once it is finalized, replacement pages for your loose-leaf NJ IBC will be available at <http://www.nj.gov/dca/divisions/codes/codreg> as "Corrected pages" under the Building Subcode.

Source: Code Assistance Unit
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