

# Construction Code Communicator



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Joseph V. Doria, Jr., Commissioner  
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## Special Alert: UCC Information and Special Alerts to be Published in the DCA Document Library

Over the years, the Department of Community Affairs has provided code clarification, subject-specific instruction, and other important information to New Jersey's licensed construction code community by way of a mass U.S. Postal Service mailing.

Be advised the Department will seize the opportunity afforded by its new UCC Information Document Library and, beginning in the very near future, will use this Document Library with e-mail alerts to provide such clarification, instruction, or otherwise important information; it will also cease its use of the traditional U.S. Postal Service mass-mailing technique.

For this reason, you *must* subscribe to the Document Library following the instructions provided in the article entitled, "Coming Soon . . . the New UCC Information Folder in the MyNewJersey Document Library: Codes and Standards' Online Reference Room," which appears elsewhere in this newsletter. Please do so at your earliest opportunity to avoid missing out on important information from the Department.

Source: Susan Woidill  
Division of Codes and Standards











## Residential Swimming Pools and the Plumbing Subcode

There has been some confusion regarding the latest pool and spa requirements and the new suction entrapment prevention language that is referenced in the Uniform Construction Code. In the 2006 International Residential Code (IRC/2006), Appendix G (Swimming Pools, Spas, and Hot Tubs) addresses requirements for constructing new residential swimming pools. When the IRC/2006 was adopted as the One- and Two-Family Dwelling Subcode, Section AG106, "Entrapment Protection for Swimming Pool and Spa Suction Outlets," was deleted, and was replaced with a reference to the Plumbing Subcode, *N.J.A.C. 5:23-3.15(b)8.vi*. This has resulted in confusion with regard to enforcement during the permitting and inspection process for new residential swimming pools. There has also been confusion with the way that swimming pool installers are interpreting the new requirements.

There are two key areas that should be highlighted. Residential swimming pools that are constructed with submerged suction (bottom drains) must now have two suction outlets that are at least three feet apart. These outlets must have American Society of Mechanical Engineers (ASME) -approved type covers. The pool must also have some type of atmospheric safety vacuum release system provided at the pump or pumps. The atmospheric safety vacuum release system must conform to ASME A112.19.17. To date, there

*(continued on page 3)*

### In This Issue

CSST Bonding Follow-Up 	4	Photoluminescent Exit Signs -- Revisited 	5
Clothes Dryers -- Residential (Type 1) Combustion Air 	3	Protection of Adjoining Property 	6
Coming Soon . . . the New UCC Information Folder in the MyNewJersey Document Library: Codes and Standards' Online Reference Room	2	Residential Swimming Pools and the Plumbing Subcode 	1
Final Payment -- Contractual Matter	2	Sound Transmission 	11
Gas Water Heaters Recalled 	4	Special Alert: UCC Information and Special Alerts to be Published in the DCA Document Library	1
Hot Topics	3	Swimming-Pool Barriers Revisited 	10
National Certification of Construction Code Professionals Now Available from IAPMO	7	The U.S. Census Bureau's Monthly Building Permits Survey: A Leading Economic Indicator of the Construction Industry	4
New Jersey Register Adoptions	11	Type 1 Hoods and Fire-Suppression Systems 	6
Nonmetallic-Sheathed Cable Installations 	8	With Every New Holiday, Kiosks are Aplenty!	5

### Coming Soon . . . the New UCC Information Folder in the MyNewJersey Document Library: Codes and Standards' Online Reference Room

We will be adding a new folder to the myNewJersey Document Library, entitled "UCC Information."

**What is it?** The Document Library is a restricted channel on the State's myNewJersey portal; the portal is simply the platform through which the State of New Jersey provides a variety of e-government services and online information. Access to the Document Library through the portal allows us to take advantage of a technology platform that is easy to use, efficient, and most importantly secure. The UCC Information folder is a new online reference room for Uniform Construction Code (UCC) -related issues.

**What will I find there?** The Document Library contains folders that you have authorization to view. The new UCC Information folder will contain information about New Jersey construction code enforcement in general. It will contain current and back issues of the *Construction Code Communicator*, formal technical opinions, bulletins, and special alerts to construction code enforcement staff throughout New Jersey. And, over time, it will contain so much more.

**How do I get in?** These three keys will open the UCC Information folder to you: 1) you must have Internet access; 2) you must be a registered myNewJersey portal user; and 3) you must be an authorized user to access the UCC Information folder within the myNewJersey Document Library.

To request authorization to the UCC Information Document Library, please follow the instructions for the description that best fits your current employment. You will receive an e-mail invitation and instructions on how to use the system.

**Working licensed officials:** If you have not already provided your information through the Mutual Aid Survey, please e-mail Susan Lydon in the Office of Regulatory Affairs at [slydon@dca.state.nj.us](mailto:slydon@dca.state.nj.us). Provide your full name, license number, e-mail address, the position(s) you currently hold, and the municipality or municipalities in which you are employed.

**Licensed individuals not currently employed in code enforcement:** Please e-mail the Bureau of Code Services Licensing Unit at [codeslicensing@dca.state.nj.us](mailto:codeslicensing@dca.state.nj.us). Provide your full name, license number, and e-mail address.

**Nonlicensed individuals:** Please e-mail [codesandstandards@dca.state.nj.us](mailto:codesandstandards@dca.state.nj.us), and provide your full name, e-mail address, and interest in UCC Information.

*Note:* If you are already a *PermitsNJ* user, you have access to the myNewJersey Portal and the myNewJersey Document Library, but you must obtain an authorization code to gain access to the UCC Information folder. You do not need to request this authorization code. We will be sending an authorization code to all current *PermitsNJ* users when the new UCC Information folder is available.

Source: Susan Woidill  
Division of Codes and Standards

### Final Payment – Contractual Matter

In response to a multitude of calls regarding the reference to *N.J.A.C. 13:45A-16.2(a)10.ii* on the back of Uniform Construction Code (UCC) Form F180, Construction Permit Notice, the following is the actual wording of the regulation from the New Jersey Department of Law and Public Safety, Division of Consumer Affairs:

Where midpoint or final inspections are required under State laws or local ordinances, copies of inspection certificates shall be furnished to the buyer by the seller when construction is completed and before final payment is due, or the signing of a completion slip is requested of the buyer.

Final payment is a contractual matter. The notice simply advises the owner that final payment is not required until the job has passed final inspection.

If you have questions regarding the UCC requirements, you may contact me at (609) 984-7609. If you have questions regarding Consumer Affairs' requirements, you may contact them at (888) 656-6225 or (973) 504-6370.

Source: Rob Austin  
Code Assistance Unit

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(continued from page 1)

are a number a different types of devices that are approved. If the residential swimming pool is constructed without submerged suction outlets, it is not required to be equipped with an atmospheric safety vacuum release system.

An exception to *N.J.A.C. 5:23-3.15(b)8.vi* of the Plumbing Subcode, paragraph 7.23.4.1 of the National Standard Plumbing Code (which was adopted on September 15, 2008) states: "Swimming pools installed in or on the lots of one- or two-family dwellings" are not required to be equipped with main-drain suction outlets in the lowest point of the swimming pool floor.

A permit application for a residential swimming pool with bottom suction drains must include plumbing, building, and electrical technical sections. The plumbing inspector is responsible for the inspection of the bottom suction drains, the vacuum release system, and the pool heater (if one is being installed). If there are no bottom drains and no vacuum release system or pool heater, then a plumbing technical section is not required.

I hope that this article clears up some of the confusion with these new pool requirements.

Should you have any questions, you may contact me at (609) 984-7609.

Source: Thomas C. Pitcherello  
Code Assistance Unit

## Clothes Dryers -- Residential (Type 1) Combustion Air

The 2006 International Residential Code (IRC/2006), Section G2407.1, General, and the 2006 International Fuel Gas Code (IFGC/2006), Section 304.1, General, require air for combustion, ventilation, and dilution of flue gases for appliances installed in buildings.

In the IRC/2006 and IFGC/2006, an exception was added for Type 1 clothes dryers that are provided with make-up air in accordance with Section G2439.4 (IRC), Make-Up Air, and Section 614.5 (IFGC), Make-Up Air. Section 614.5 (IFGC/2006) states: "Installations exhausting more than 200 cfm shall be provided with make-up air. Where a closet is designed to allow for the installation of a clothes dryer, an opening having an area of not less than 100 square inches for make-up air shall be provided in the closet enclosure, or make-up air shall be provided by other approved means."

Because the exception for Type 1 clothes dryers requires only make-up air, the requirement for two openings in a wall for combustion air does not apply. The exception recognizes that clothes dryers receive the required combustion air from the make-up air that compensates for the exhaust air from the appliance.

Therefore, if a clothes dryer is located in a closet or room where there is no other gas- (or oil-) fired appliances or equipment, only one opening of not less than 100 square inches is required. A louvered door with a minimum opening of not less than 100 square inches meets the requirements for combustion air and make-up air.

Should you have any questions, you may contact me at (609) 984-7609.

Source: Thomas C. Pitcherello  
Code Assistance Unit

## Hot Topics

In this technological age, we are becoming more and more dependent on the Internet. The Division of Codes and Standards is also relying more and more on the Internet to get pertinent information out to the public, especially our licensed code officials and inspectors.

Information regarding hot topics that affect the Uniform Construction Code (UCC) have been placed on the Division's website and I invite you to take a look at them. A brief explanation of some of the hot topics is provided below. However, please visit <http://www.nj.gov/dca/codes> to view all the information.

### SPECIAL INSPECTOR CERTIFICATION

On November 6, 2006, the Department of Community Affairs adopted rules establishing requirements for the certification of special inspectors. The effective date of the rules is November 6, 2008. [See *N.J.A.C. 5:23-5.4(f)*.] These requirements are now in effect. No permit may be issued for any project requiring special inspections unless the names and certifications of those performing the special inspections are provided.

The website listed above includes the letter to construction officials (November 2008), the special inspector rules, the provisional certification application, the special inspector information booklet, the special inspector application, and a list of certified special inspectors.

### OUTDOOR WOOD BOILERS

Some issues have arisen with regard to outdoor wood boilers. For instance, county health departments,

(continued on page 5)

## CSST Bonding Follow-Up

Since there appears to be continued confusion on bonding of gas piping, specifically Corrugated, Stainless-Steel Tubing (CSST), this article expands upon the Winter 2007 *Construction Code Communicator* article, “CSST Bonding – What is Required?” and Section 250.104(B), Other Metal Piping, of the 2005 National Electrical Code (NEC/2005).

Section G2411.1 of the 2006 International Residential Code (IRC/2006), Gas Pipe Bonding, which applies to Group R-5 occupancies, and Section 310.1 of the 2006 International Fuel Gas Code (IFGC/2006), Gas Pipe Bonding, which applies to all occupancies other than Group R-5, state the following:

Each above-ground portion of a gas piping system that is likely to become energized shall be electrically continuous and bonded to an effective ground-fault current path. Gas piping shall be considered to be bonded when it is connected to appliances that are connected to the equipment grounding conductor of the circuit supplying that appliance.

Referenced model codes supersede the manufacturer’s recommendations. Therefore, contrary to some manufacturers’ installation recommendations, the above sections prevail. No additional bonding is required where there is electrical connection to any gas appliance; the grounding conductor serves as the bonding means of a gas piping system. If the installation meets the manufacturer’s recommendations for bonding, this would be considered above code requirements and acceptable.

If you have any further questions, you may contact us at (609) 984-7609.

Source: Rob Austin and Suzanne Borek  
Code Specialists

## Gas Water Heaters Recalled

In an April 3, 2008 release, the United States Consumer Product Safety Commission (CPSC), in cooperation with A. O. Smith and State, water heater manufacturers, has announced a voluntary recall of approximately fifteen hundred 75-gallon natural and propane gas water heaters. The flue gas temperatures on these water heaters can exceed safe limits and produce excessive temperature in the venting unit, which poses a fire hazard. Also, the exhaust from the water heater can leak into the surrounding room, which poses a carbon-monoxide hazard.

The recalled water heaters involve A. O. Smith Model No. FCG-75 300 and FCG-75 301, Serial Numbers L07A071460 through L07A144966, and State Model No. GS6 75 XRR S and GS6 75 CRR S, Serial Numbers M07A009387 through M07A072884. Model and serial numbers are printed on the water heater’s rating plate. The recalled water heaters were sold by independent contractors and plumbers nationwide from November 2007 through January 2008.

The CPSC recommends that consumers immediately stop using the recalled water heaters and contact the manufacturer at (866) 880-4661, or visit the firm’s website at <http://www.hotwater.com>, to arrange for a free repair.

This notice is just to inform code officials that if, for example, they are inspecting a furnace or boiler replacement, they may take notice of the existing water heater and, if any of the recalled water heaters are installed, advise the building owner that there is a recall on these heaters, and provide the owner with information on how to contact the company for a free repair. Of course, this is voluntary on your part.

Should you have any questions, you may contact me at (609) 984-7609.

Source: Thomas C. Pitcherello  
Code Assistance Unit

## The U.S. Census Bureau’s Monthly Building Permits Survey: A Leading Economic Indicator of the Construction Industry

To monitor the health of our nation’s economy, one of the most watched statistics is the Index of Leading Economic Indicators, published by The Conference Board. There are ten data series that are used to compile this index, one of which is building permits authorized for new privately-owned, residential construction.

The data provided to the Census Bureau, either through paper reports or electronic data submissions, are essential to the calculation of accurate estimates of new residential construction. In addition, these data are used to calculate local population estimates between censuses and are used by many others for a variety of purposes, such as companies deciding where to build their next plant or store, academic researchers, etc.

We would like to express our deep gratitude to the municipalities in New Jersey in providing these data.

*(continued on page 6)*

(continued from page 3)

acting under the authority of the New Jersey Department of Environmental Protection (DEP), have ordered residents with existing outdoor wood boilers to remove them. This is because the DEP issued a compliance advisory regarding outdoor wood boilers and concern with the smoke emission provisions of DEP's rules at *N.J.A.C. 7:27-3*. The Division is reaching out to the DEP to get some clarification and guidance for those who have or who want to install outdoor wood boilers.

Please visit the website for the letter to construction officials (November 2008) regarding the rules and regulations for outdoor wood boilers. We will be updating/adding information as it comes to us.

#### PERMIT EXTENSION ACT OF 2008

On September 6, 2008, Governor Jon S. Corzine signed the "Permit Extension Act of 2008," P.L. 2008, c. 78. This law, like a similar law passed in 1992, was passed in response to the economic downturn, which has slowed construction. The law extends the period in which UCC permits and approvals are valid. In short, the Permit Extension Act stops the clock on the expiration of approvals during the "extension period," which is defined as January 1, 2007 through July 1, 2010. This means that any UCC permit that was valid as of January 1, 2007 will still be valid on July 1, 2010. However, the Act does have exclusions.

Please visit the website for the information sent to construction officials in September 2008. For example, the information contains examples of the Act's application to UCC permits, lists the types of permits/projects that are included and those that are excluded, and further clarifies the definition of "environmentally sensitive area."

#### PARK MODEL GUIDANCE

The Recreational Park Trailer Subcode (*N.J.A.C. 5:23-4D*) was adopted on August 4, 2008 and addresses the construction requirements for recreational park trailers. Please visit the website for the guidance document that provides information about permit applications, field inspections, additions, existing units, existing additions, and removal of a recreational park trailer.

Again, the Division's website address is <http://www.nj.gov/dca/codes>. Typically, the most recent information is in the first column under the heading "Announcements."

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

Source: Rob Austin  
Code Assistance Unit

#### With Every New Holiday, Kiosks are Aplenty!

Kiosks tend to sprout up all over enclosed mall buildings with every change of a holiday season. Please keep in mind, as per the Uniform Construction Code (UCC), permanent kiosks are required to meet the requirements of Section 402.10, Kiosks, of the 2006 International Building Code. Temporary kiosks are required to meet these requirements when the kiosk (1) covers an area 120 square feet or more, including all connecting areas or spaces with a common means of egress or entrance; and (2) remains in place for 180 days or more [*N.J.A.C. 5:23-2.14(b)4.i*]. If the temporary kiosk does not meet the two criteria above, then it is subject to the Uniform Fire Code (UFC).

Kiosks that are subject to the UCC must be reviewed and inspected per *N.J.A.C. 5:23-3.4(a)1*, Responsibilities; plan review is performed by building and fire subcode officials, and inspections are performed by the building subcode official. Kiosks that are subject to the UFC are to be reviewed and inspected by the local fire official.

If you have any questions on this matter, you may contact me at (609) 984-7609.

Source: Rob Austin  
Code Assistance Unit

#### Photoluminescent Exit Signs -- Revisited

This is a follow-up article to one written in the *Construction Code Communicator*, Winter 2004, Volume 16, Number 3. In this article, the analysis and advice are updated.

The 2000 edition of the International Building Code (IBC/2000) contained requirements for the installation of externally illuminated exit signs. Section 1003.2.10.4 of the IBC/2000, entitled "Exit Sign Illumination," stated that exit signs must be internally or externally illuminated. This code section went on to require that the face of an exit sign must be illuminated from an external source and must have an intensity of illumination of not less than five foot-candles. Next, Section 1003.2.10.5 of the IBC/2000, entitled "Power Source," required exit signs to be illuminated at all times. To ensure this, the exit sign illumination source was required to be connected to an emergency electrical system provided from storage batteries, unit equipment, or an on-site generator; this would ensure continued illumination for not less than 90 minutes in the event of primary power loss. However, there was an exception to this requirement: approved, self-

(continued on page 8)

## Type 1 Hoods and Fire-Suppression Systems

It is stated in both the International Mechanical Code (IMC) and International Fire Code (IFC) that Type 1 hoods and associated fire-suppression systems are required above all cooking appliances that are used for **commercial purposes**, and that produce grease-laden vapors. These requirements can be found in the IMC/2006, Section 507.2 and the IFC/2006, Section 609.2.

So what does this mean? There is no question that cooking operations are inherently hazardous and increase the chance of fires. However, we must balance the need for Type 1 hoods and fire-suppression systems with the purpose of the cooking operation.

Recently, there have been several inquiries regarding residential ranges being installed in educational institutions and special-needs training facilities to teach students/clients how to cook in the home setting. This operation **would not** require a Type 1 hood and associated fire-suppression system.

However, if commercial cooking equipment is being installed or residential cooking equipment is being installed with the intent of being utilized for a commercial purpose, then the code is clear, and a Type 1 hood and associated fire-suppression system should be installed.

Source: Carmine Giangeruso  
Construction Official  
Office of Regulatory Affairs

## Protection of Adjoining Property

*N.J.A.C. 5:23-2.15(f)1.i(1)* and *N.J.A.C. 5:23-2.34* require that, when a building or structure is built or rehabilitated, the adjacent building or structure must be protected from possible damage caused by the work on the other building or structure. Here is some guidance on how to proceed.

### 1. HOW DO WE PROTECT THE EXISTING ADJACENT FOOTING FROM THE NEW FOOTING?

Adjoining footings are addressed in the 2006 International Residential Code (IRC/2006) and 2006 International Building Code (IBC/2006). Section R301.1.3 of the IRC/2006 allows for design in accordance with engineering practice or the IBC/2006 where a building contains structural elements not conforming to the IRC/2006. Section 1805.2.2 of the IBC/2006 addresses adjoining footings.

(continued from page 4)

Your State is using cutting-edge technology by capturing most of this information electronically and transmitting it to the Census Bureau.

Our loss of personal contact with each local permit office is a down-side to electronic data collection. Ordinarily, questions we have about a completed survey form are asked directly of the person submitting that form. With a large electronic system, that is not so easy.

We want to bring to your attention a reporting issue that can adversely affect this data. Many local jurisdictions (not just in New Jersey) are issuing individual permits for each housing unit in a multifamily building. When each permit is reported separately, units are often incorrectly classified as single family. More significantly, the total units in the structure are occasionally reported each time another unit is authorized, creating a very large overestimate in the multifamily category.

This has been acknowledged in the *Construction Code Communicator* (Volume 20, Number 1), where it was observed in the article, "Multiple Permits for Multiple Dwellings Means Multiple Mistakes," that this practice "overstates the number of authorized dwellings in the municipality, a critical construction indicator — one that is used to determine affordable housing obligations."

In order to publish accurate building permit data, when the initial building permit is authorized, we need to know the total number of units that will be in a multifamily building. These same units should not be counted again.

If you need assistance in reporting these data, please contact John Lago, Division of Codes and Standards, Department of Community Affairs at (609) 292-7898.

Source: Dan Sansbury  
Assistant Division Chief  
Construction Indicator Programs  
U.S. Census Bureau

and

Annetta M. Titus  
Survey Statistician  
Residential Construction Branch  
U.S. Census Bureau

**National Certification of Construction Code Professionals Now Available from IAPMO**

On December 31, 2008, the six-year-long agreement between the National Certification Program for Construction Code Inspectors (NCPCCI) and the International Code Council (ICC) expires. This means that the ICC will accept only results from ICC examinations and will no longer accept NCPCCI score reports for issuing ICC certificates for code enforcement professionals.

However, those who take code enforcement examinations through NCPCCI may obtain national certificates through the International Association of Plumbing and Mechanical Officials (IAPMO). Code enforcement professionals do not need to be members of IAPMO to obtain their national certification.

The chart below will assist in determining the NCPCCI examination required for each IAPMO certification.

<b>Commercial Inspection</b>	<b>NCPCCI Exam</b>	<b>Inspection</b>	<b>NCPCCI Exam</b>	<b>Code Official</b>	<b>NCPCCI Exam</b>
<input type="checkbox"/> Commercial Building Inspector	1B, 3B	<input type="checkbox"/> Building Inspector	1A, 1B, 3B	<input type="checkbox"/> Building Code Official	1A, 1B, 3B, 1C, 3C, CBO
<input type="checkbox"/> Commercial Electrical Inspector	2B	<input type="checkbox"/> Electrical Inspector	2A, 2B	<input type="checkbox"/> Electrical Code Official	2A, 2B, 2C, CBO
<input type="checkbox"/> Commercial Mechanical Inspector	4B	<input type="checkbox"/> Mechanical Inspector	4A, 4B	<input type="checkbox"/> Mechanical Code Official	4A, 4B, 4C, CBO
<input type="checkbox"/> Commercial Plumbing Inspector	5B	<input type="checkbox"/> Plumbing Inspector	5A, 5B	<input type="checkbox"/> Plumbing Code Official	5A, 5B, 5C, CBO
<input type="checkbox"/> Commercial Combination Inspector	1B, 2B, 3B, 4B, 5B	<input type="checkbox"/> Combination Inspector	1A, 2A, 4A, 5A, 1B, 2B, 3B, 4B, 5B	Score reports documenting eligibility must be less than 3 years old.  IAPMO certifications issued under this program are based on the International Codes, as well as other applicable codes.  Complete an application for IAPMO Personnel Certification based on NCPCCI examinations, and submit it along with a copy of your passing score report and the applicable fee. Receive an IAPMO certificate and wallet card after completing the certification application process.  Additional information is available for the NCPCCI exams at <a href="http://www.prometric.com/ncpcci">http://www.prometric.com/ncpcci</a> and for IAPMO certifications based on the Uniform Codes at <a href="http://www.iapmo.org/Pages/GetCertified.aspx">http://www.iapmo.org/Pages/GetCertified.aspx</a> .	
<input type="checkbox"/> Elevator Inspector	6B				
<b>Residential Inspection</b>		<b>General Plans Examination</b>			
<input type="checkbox"/> Residential Building Inspector	1A	<input type="checkbox"/> Building Plans Examiner	1B, 1C, 3B, 3C		
<input type="checkbox"/> Residential Electrical Inspector	2A	<input type="checkbox"/> Electrical Plans Examiner	2B, 2C		
<input type="checkbox"/> Residential Mechanical Inspector	4A	<input type="checkbox"/> Mechanical Plans Examiner	4B, 4C		
<input type="checkbox"/> Residential Plumbing Inspector	5A	<input type="checkbox"/> Plumbing Plans Examiner	5B, 5C		
<input type="checkbox"/> Residential Combination Inspector	1A, 2A, 4A, 5A	<input type="checkbox"/> Combination Plans Examiner	1C, 2C, 3C, 4C, 5C		

Those code enforcement professionals who would like to obtain a national certificate issued by IAPMO may contact Kathy Maka, Personnel Certification Program Manager, at [kathy.maka@iapmo.org](mailto:kathy.maka@iapmo.org).

Source: Emily W. Templeton  
Code Development Unit

## Nonmetallic-Sheathed Cable Installations

The Division of Codes and Standards is still receiving many questions regarding the installation requirements of nonmetallic-sheathed cable in Article 334 of the 2005 National Electrical Code (NEC). The confusion lies between the NEC/1999 and the NEC/2002. Here, a change was made in the “uses permitted” section eliminating the height limitation in the NEC/1999, and associating the installation with building occupancy and construction types in the NEC/2002. (This remains true for the NEC/2005 and NEC/2008.) With the exception of one- and two-family dwellings of any construction type, all buildings are required to be Type III, IV, or V construction provided the nonmetallic-sheathed cable is concealed in multifamily dwellings, or is provided with a thermal barrier that has at least a 15-minute finish rating (e.g., typical Sheetrock) for all other buildings.

The question that remains is what are Types III, IV, and V construction? Type III is masonry exterior walls, Type IV is heavy timber, and Type V is conventional wood-framed lumber.

In short, since the adoption of the NEC/2002 (May 5, 2003), buildings of any size or shape have been permitted to have nonmetallic-sheathed cable installed as long as they are Type III, IV, or V construction.

Note: For the specifics on uses permitted and uses not permitted for nonmetallic-sheathed cable, please visit Sections 334.10 and 334.12, respectively, as amended by *N.J.A.C. 5:23-3.16*.

If you have any questions on this matter, please contact us at (609) 984-7609.

Source: Rob Austin and Suzanne Borek  
Code Assistance Unit

*(continued from page 5)*

luminous exit signs that provided continuous illumination independent of external power sources for no less than 90-minutes in case of primary power loss were acceptable.

The IBC/2006 contains similar code requirements that allow the installation of externally illuminated exit signs. Section 1011.5 of the IBC/2006, entitled “Externally Illuminated Exit Signs,” states that externally illuminated exit signs must comply with the requirements of 1011.5.1 through 1011.5.3. Section 1011.5.1, entitled “Graphics,” contains requirements for the lettering on the sign; Section 1011.5.2, entitled “Exit Sign Illumination,” requires that five foot-candles of light be present at the face of the sign; and Section 1011.5.3, entitled “Power Source,” requires that the sign be illuminated at all times and at least 90 minutes after primary power failure. Section 1011.5.3 requires the power supply for the sign to be connected to an emergency power supply. As in the 2000 code, there is an exception for self-luminous signs that provide continuous illumination independent of the external power source. Photoluminescent exit signs will glow for up to 65 hours after an external power source failure; thus, this exception allows the use of photoluminescent signs.

The manufacturers of photoluminescent exit signs specify that these signs require exposure to a minimum of five foot-candles of light for an hour to become fully operational. The signs require an unfiltered fluorescent light with the intensity of five foot-candles be present, 24 hours a day, seven days a week. The external illumination power source must be reliable and not on a circuit controlled by an automatic timer. The photoluminescent exit signs should only be installed inside and should not be exposed to direct sunlight, moisture, or temperatures outside the range of 50 to 104 degrees F. The manufacturers’ installation instructions include information about periodic inspections. Uniform Construction Code officials are not responsible for these periodic inspections because maintenance inspections are performed by Uniform Fire Code officials.

These signs are permitted provided the installation meets all of the code requirements and the manufacturer’s installation instructions.

Should you have any questions, you may contact either of us at (609) 984-7609.

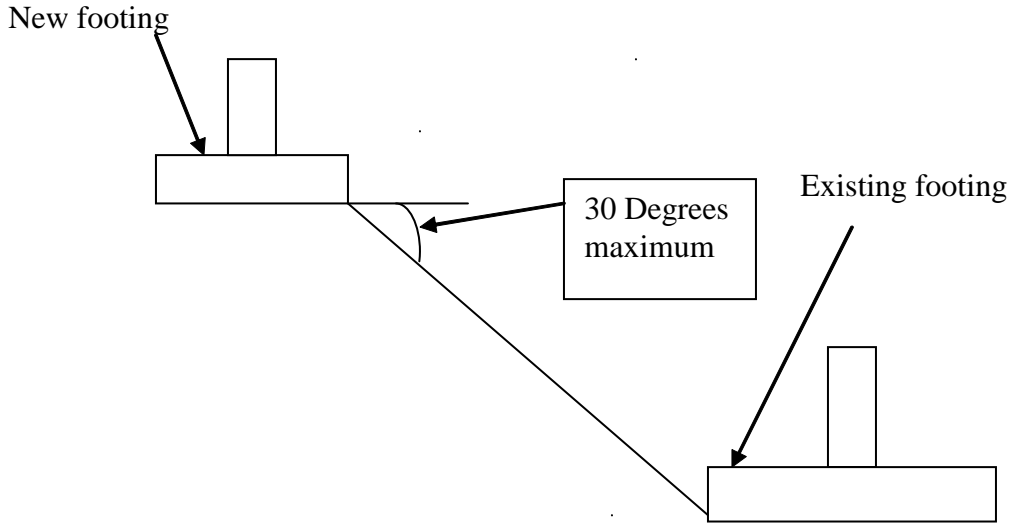
Source: Suzanne Borek and Michael Whalen  
Code Assistance Unit



(continued from page 6)

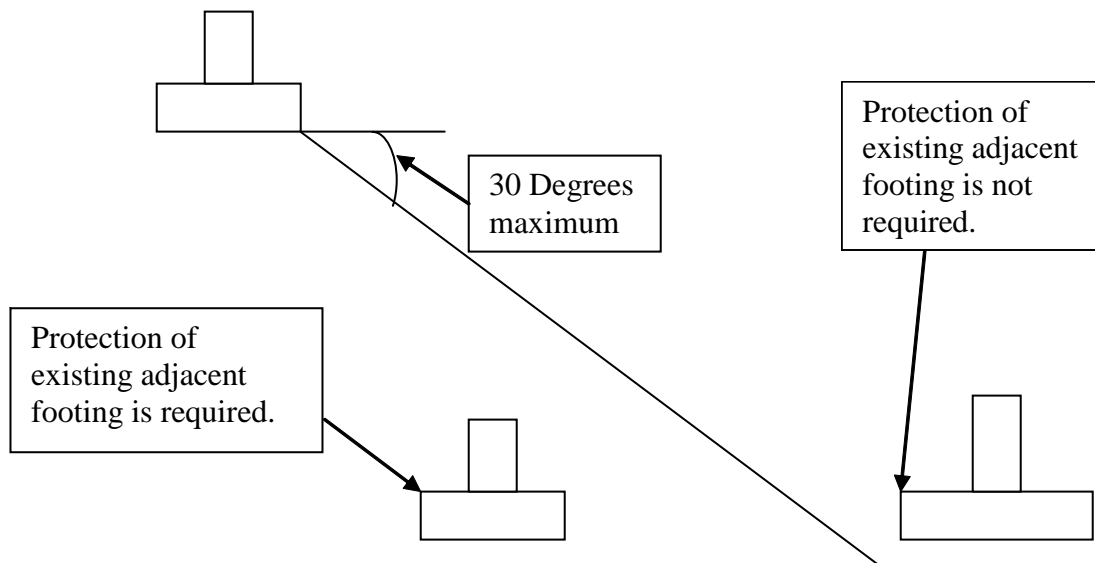
Compliance with N.J.A.C. 5:23-2.15(f)1.i(1) can be accomplished with the placement of the new foundation at a strategic place. If you draw a line between the lower edges of the adjoining footing, the slope cannot be steeper than 30 degrees with the horizontal. See Sketch A below:

A.



When the slope is less than 30 degrees, you do not need to protect the adjacent footing. Otherwise, protection is required. See Sketch B below:

B.



**2. HOW DO WE PROTECT EXISTING BUILDINGS WITH A LOWER ROOF FROM DRIFTING SNOW OFF A NEW, TALLER BUILDING?**

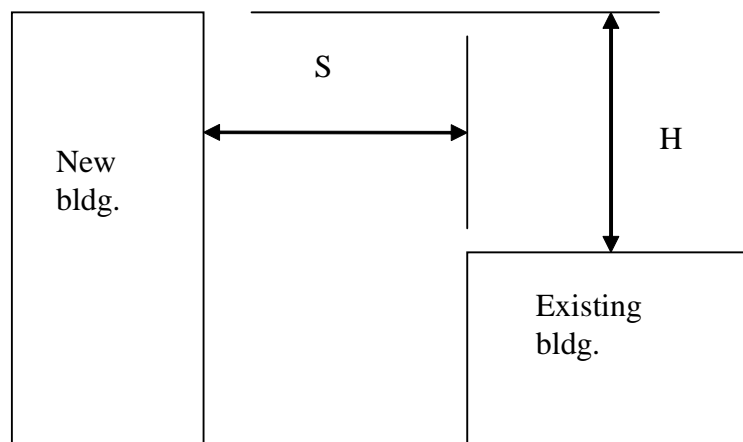
Drift snow is addressed in the IRC/2006 and IBC/2006. Section R301.1.1 of the IRC/2006 allows for alternative design in compliance with engineering practice or with the IBC/2006. The IRC/2006 does not directly address drift snow. Therefore, engineering practice or the IBC/2006 requirements for drift snow are applicable to all buildings. Section 1608 of the IBC/2006 references Chapter 7 of American Society of Civil Engineers (ASCE) Standard 7 – 2005 for snow loads. Section 7.7 of ASCE 7 – 2005 addresses drift snow on lower roofs.

The designer can set the buildings' exterior walls 20 feet or greater apart, so that drifting snow will not impact the adjacent building's structural system and components, regardless of differential height. For those buildings that are

(continued from page 9)

within 20 feet of each other, the designer has options on how to analyze and design for snow drift loads. 1) The designer can analyze the existing building for the additional loads due to snow drift, and reinforce the structural system and components as required. Or, 2) the designer can use the relationship of separation distance and differential height of the buildings. Using this option of separation distance and differential height, one can draw the following conclusion. When the differential height of the taller, new building to the shorter, existing building is equal to or less than the separation distance, then snow drift need not be considered. Otherwise, drift snow impacts the structural system and components of the existing building. The structural system and components of the existing building must be analyzed, and corrective measures taken if necessary. See Sketch C below:

C.



If  $S = H$  or  $> H$ , snow drift need not be considered.

If you have any questions on this, please direct your calls to me at (609) 984-7609.

Source: Marcel Iglesias  
Code Assistance Unit

### Swimming-Pool Barriers Revisited

Many of you may remember the confusion created when the 1993 Building Officials and Code Administrators National Building Code was amended to include requirements for swimming-pool barriers. There have been many telephone calls made, letters written, and *Construction Code Communicator* articles published on this topic.

After hours of debate, this article is intended to clarify one of the more contentious issues that has arisen: "Is it permissible to share a swimming-pool barrier with my neighbor?"

The opinion of the Department is "Yes." It is permissible to share a swimming-pool barrier, provided the local authority having jurisdiction grants a variation to do

so. The variation should include a statement from the fence owner acknowledging use of his fence as a swimming-pool barrier and a statement from the pool owner acknowledging his responsibility to install a compliant barrier should the neighbor remove his fence for any reason. The barrier should not be climbable, as per code, from the side away from the swimming pool; and if there is a swimming pool on both sides of the barrier, the barrier should not be climbable from either side.

This should solve many of the problems before us as code officials on the subject. We believe this solution is reasonable and protects the public at the same time. Should you have any questions on this article, please contact the Code Assistance Unit at (609) 984-7609.

Source: John N. Terry  
Code Assistance Unit

## Sound Transmission

Section 1207 of the 2006 International Building Code (IBC/2006) contains sound transmission requirements. The Code Assistance Unit has received many telephone calls as to where these requirements are located within the 2006 International Residential Code (IRC/2006). When in doubt, check the appendices! Just as the swimming-pool barrier requirements are in Appendix G, the sound transmission requirements are in Appendix K of the IRC/2006. The sound transmission section/appendix from both codes is essentially the same. Here's a quick synopsis:

- ◆ Common interior walls, partitions, and floor/ceiling assemblies between adjacent dwelling units or between dwelling units and adjacent public areas such as halls, corridors, stairs, or service areas are to meet a specified Sound Transmission Class (STC) and Impact Insulation Class (IIC).
- ◆ Air-borne sound: IBC/2006 requires an STC rating of not less than 50 (45 if field tested) when tested in accordance with American Society for Testing and Materials (ASTM) Standard E90; IRC/2006 requires an STC rating of not less than 45.
  - More specifically, the STC rating is to be maintained at penetrations or openings in construction assemblies for piping; electrical devices; recessed cabinets; bathtubs; soffits; or heating, ventilating, or exhaust ducts are to be sealed, lined, insulated, or otherwise treated. (This requirement does not apply to dwelling unit entrance doors; however, such doors are to be tight fitting to the frame and sill.)
- ◆ Structure-borne sound: IBC/2006 requires an IIC rating of not less than 50 (45 if field tested) when tested in accordance with ASTM E492; IRC/2006 requires an IIC rating of not less than 45.

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

Source: Rob Austin  
Code Assistance Unit

## New Jersey Register Adoptions

**Date:** November 3, 2008  
**Adoption:** 40 *N.J.R.* 6437(b)  
**Summary:** The adopted amendments at *N.J.A.C.* 5:23-5.3, 5.19G, and 5.23B establish new categories of

special inspectors who will be required to perform field inspections for structural welding, structural steel and bolting, concrete placement, reinforced concrete, and prestressed concrete, and the applicable sections of the Building Subcode for which each special inspector is responsible. In addition, this rule change establishes the required education, experience, and certifications that will be required.

**Date:** November 3, 2008  
**Adoption:** 40 *N.J.R.* 6439(a)  
**Summary:** The adopted amendment at *N.J.A.C.* 5:23-5.25 addresses the revocation of licenses and alternative sanctions. Since there was not an intermediate penalty between the 60-day suspension period and the revocation of a license for a construction official, a subcode official, or an inspector, the 60-day limitation was eliminated so that an appropriate suspension period could be imposed. This rule change also requires that any conduct for which the Department of Community Affairs seeks to impose sanctions must have occurred within the past ten years.

**Date:** November 17, 2008  
**Adoption:** 40 *N.J.R.* 6540(a)  
**Summary:** The adopted amendment at *N.J.A.C.* 5:23-3.15 addresses fire department (Siamese) connections in the Plumbing Subcode. The Plumbing Subcode was changed to revert to the language in the 2003 National Standard Plumbing Code to permit the installation of a double check valve assembly on a fire-protection system, which includes a fire department (Siamese) connection, where the system is supplied from a potable water system and is located more than 1,700 feet from a non-potable water supply; it also requires a reduced pressure zone (RPZ) backflow preventer on a system where a non-potable water supply system is located within 1,700 feet of a non-potable water supply. Lastly, minor changes were made to update the edition of an American Society of Mechanical Engineers (ASME) and American Society of Heating, Refrigerating, and Air-Conditioning Engineers referenced standard.

**Date:** December 15, 2008  
**Adoption:** 40 *N.J.R.* 6958(a)  
**Summary:** The adopted amendments at *N.J.A.C.* 5:23-2.7, 2.17A, 6.8, 6.9, 12.1, 12.2, 12.3, 12.4, 12.8, and 12.12 address the adoption of ASME standards and alterations to elevators in the Elevator Safety Subcode. With the adoption of the 2006 International Building Code, the referenced elevator standards were updated. Also, the Rehabilitation Subcode (*N.J.A.C.* 5:23-6) and the Elevator Safety Subcode (*N.J.A.C.* 5:23-12) were updated.

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