

# Construction Code Communicator



State of New Jersey  
Donald T. DiFrancesco, Acting Governor

Department of Community Affairs  
Jane M. Kenny, Commissioner

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## Private Garages Below Living Spaces

Recently, the Department has received a number of inquiries regarding the requirements for floor/ceiling separation assemblies between the dwelling unit and a private garage located beneath living spaces in single-family homes. According to Section 407.3 of the 1996 Building Officials and Code Administrators (BOCA) National Building Code, fire partitions and floor/ceiling assemblies that have a minimum one-hour fire-resistance rating shall separate private garages located beneath habitable rooms from adjacent interior spaces.

In Formal Technical Opinion (FTO)-13, the Department has provided some working examples of construction practices that meet the intent of the Building Subcode and which are considered acceptable methods of providing a one-hour fire-resistance-rated assembly. FTO-13 does not, however, supersede the Building Subcode. FTO-13 provides examples of acceptable ways to meet the requirements of the Building Subcode. Designs other than those included in FTO-13 are possible. Therefore, it is up to the design professional to decide which resource to use.

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

Source: Marcelino Iglesias  
Code Assistance Unit

## Bachelor Degrees Available On-Line






An agreement benefiting code enforcement professionals has been made between Building Officials and Code Administrators (BOCA) International and Central Michigan University (CMU). BOCA and CMU, a comprehensive university dedicated to providing a broad range of educational programs and services, are offering an on-line degree program that gives students a chance to obtain a Bachelor of Science degree in Business Administration with an area of concentration in Code Administration.

On-line learning provides code enforcement professionals with an opportunity, based on their own schedules, to obtain a degree wherever there is Internet access. The degree program combines traditional education courses associated with a business degree — accounting, economics, management, and technology — with specific code-related courses. Students can enroll in the program as new students, or credits may be transferred from other schools or universities.

If you would like to learn more about obtaining a degree of this kind, you may call BOCA at 1-800-214-4321, extension 355.

Source: Susan H. McLaughlin, Supervisor  
Education Unit  
Bureau of Code Services

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## Basements vs. Crawlspace

As local officials, do you know the difference between basements and crawlspaces? Well, if you are not sure, don't worry because you are not alone. Recently, the Department received a call from a local official asking about this difference. The official had received a set of plans indicating that a space below the first floor was a crawlspace. The space in question was below grade, had a height of 12 block courses (12 x 8 inches = 96 inches) below the first floor joist, and was served by a stair from the first floor. It appeared that this space was a basement. However, the house in question was built in a flood zone and, according to the 1996 Building Officials and Code Administrators (BOCA) National Building Code's standards, was not permitted to have a space with a floor below the base flood elevation, so the applicant called the area a "crawlspace." Why does it matter if the house was built in a flood zone? The answer is simple.

Both the Federal Emergency Management Agency's (FEMA) National Flood Insurance Program and the Uniform Construction Code's (UCC) regulations contain provisions regarding these particular uses of a space. First, let's consider FEMA's regulations, which are very simple. According to FEMA, any space below the first floor is considered a basement and a floor below grade is not permitted in a flood zone.

Now, let's consider the UCC.

1. Since BOCA has been adopted as the Building Subcode (BOCA/1996), the definition of a basement is "that portion of a building which is partly or completely below grade." BOCA does not define the term crawlspace, so let's turn to Webster's dictionary. In the dictionary, crawlspaces are, "low, narrow spaces that provide access to plumbing, wiring, and heating systems."

2. A basement is below the first or ground floor. Crawlspaces can be located below the first or ground floor, but they can also be found in other areas of the building.

3. According to BOCA Section 502.0, a basement equals a story. It can be considered as if it were a "story above grade" or as a "windowless story." A crawlspace, on the other hand, cannot be considered a story.

4. Crawlspaces, according to BOCA Section 1211.1, follow the minimum access requirement. A basement must comply with the building's egress requirements.

5. In the UCC, basements are considered "usable spaces" and may even be habitable. Therefore, basements require a fire separation. A crawlspace, on the other hand, is considered "unusable" and requires no fire separation.

In conclusion, according to BOCA, any space, even a crawlspace, below the first or ground floor is a basement. And, according to FEMA's National Flood Insurance Program, any space below the first or ground floor is considered a basement and a building or a house may not have a floor elevation below grade in a flood zone. When a space is designated as a crawlspace, it can only be used for access to building utilities and framing elements.

I'm not sure who said this but, "If it looks like a duck, walks like a duck, and quacks like a duck, then it's a duck." In flood zones, ducks might be okay, but basements constituting floors below grade are not allowed.

Source: Jeffrey Applegate

Code Assistance Unit

## Certified Contractors for Unregulated Heating Oil Tanks

This article is intended as a follow-up to the original article entitled, "Certified Contractors for Unregulated Heating Oil Tanks," which appeared in the Volume 12, Number 2, Summer 2000 edition of the *Construction Code Communicator*. The article states that anyone performing services including installation, removal, abandonment, and testing on "unregulated heating oil tanks" is to be certified by the Department of Environmental Protection (DEP). As of yet, the DEP has not developed the certification program. Therefore, Uniform Construction Code (UCC) code officials, until otherwise notified, should not require contractors to be certified to perform this type of work on unregulated heating oil tanks. This does not affect services performed on regulated tanks.

Should you have any questions, you may contact the DEP, Bureau of Underground Storage Tanks at (609) 292-8761, or the Code Assistance Unit at (609) 984-7609.

Source: Thomas C. Pitcherello

Code Assistance Unit

## Recording Housing Demolitions

Most construction officials and technical assistants have little difficulty recording useful and accurate information about demolitions. There is confusion among a few, however, who mix up the loss of a building with the loss of a house or apartment. While it is true all houses are buildings, not all buildings are houses. Too many times, I see a demolition permit issued for an office building, a store, or a warehouse and a number is inserted telling me one or more dwellings were lost. Unless there was an apartment over the store that was razed or that public storage building slated for demolition has a residence for the facility's manager, no dwellings are lost as a result of the demolition. Please do not record a loss of either a rental or a for-sale unit if the demolished building had none.

Some make this mistake with residential accessory structures, like garages or storage tanks. A demolition permit is issued for their removal and then we're told a dwelling unit was lost. This is only true if the garage had an apartment over it, or if Aunt Sally lived in a 1,000-gallon oil tank outfitted with a cot, a bathroom, and a kitchenette.

If computers are used to record demolitions, keep in mind demolitions should be categorized as follows. For demolitions of residential buildings, use one of the following Census item numbers depending on the number of **housing units, not buildings, lost**. Item number 645 is for the demolition of a residential structure with one dwelling, a single-family house, for example. This should be the most common number used. Item number 646 is for a residential building with two dwellings, a duplex, for example; 647 denotes the demolition of a residential building with three or four dwelling units; and 648 is for a residential building with five or more houses or apartments. Whenever one of the item numbers is used from this series, we are going to assume this is a demolition of a residential structure. We will expect to see the loss of one or more dwellings, either for-sale or rental units.

Demolitions of all *nonresidential* structures fall under Census item number 649. This includes accessory structures to residential buildings, like garages and storage tanks. Most of the time, houses or apartments are not lost in this situation. I realize that, in very rare instances, there may be exceptions. When they occur, I might call your office for the story. Please be patient. Do not confuse the loss of a dwelling with the loss of a building. We're only asking for the number of dwelling units lost.

One person asked about a "partial" demolition, where part of a house is obliterated. This isn't a demolition; it's an alteration. Use Census item number 434.

If you have any questions, I may be reached at (609) 292-7898.

Source: John Lago  
Planning and Program Development

## International Codes Under Review

The State of New Jersey is working hard to review and to consider adopting the International codes. An advisory committee, comprised of representatives from the construction industry, code officials, and consumer and safety advocates, has been formed, and committee members have been divided into subject-specific, technical working groups to take a closer look at different aspects of the codes. These working groups include:

- Administrative Issues and Appendices;
- Unlimited area buildings, height and area, and sprinkler provisions;
- Wood frame construction, firewalls, open stairs, egress, and other fire safety issues;
- Use Group R-4 (group homes and assisted living);
- Engineered Wood Frame Construction; and
- Residential Affordability Issues.

The charge to the International Code Council (ICC) Advisory Committee is to review the International codes for consistency with the intent and purpose of the Uniform Construction Code (UCC) Act. The UCC Act was signed into law in 1975 for the express purpose of controlling the cost of construction while allowing the use of new technologies, and protecting public health and safety. The working groups are identifying areas of change in the International Residential Code (IRC) and International Building Code (IBC) from the current Building Subcode (the Building Officials and Code Administrators (BOCA) National Building Code/1996 and the CABO One- and Two-Family Dwelling Code/1995). They have the ability to recommend amendments to the International codes to ensure consistency with the UCC Act. As the working groups complete their reviews, a report will be made to the entire ICC Advisory Committee, which will, in turn, make recommendations to the Department.

Another aspect of the charge to the ICC Advisory Committee is the request to come up with a timely, efficient, and reliable process for the review of new model code editions in the future. The model codes are amended on a three-year code change cycle. Upon the publication of each new edition of the adopted model codes, the Department conducts a technical review for consistency with the UCC Act. The reviews are lengthy and time consuming. The ICC Advisory Committee has been asked to recommend to the Department a code review process that will hasten the adoption of the newest code edition without diminishing the quality of the technical review.

The ICC Advisory Committee is scheduled to meet on the fourth Tuesday of every month at 10:00 a.m. in Conference Room 129 at the Department of Community Affairs, 101 South Broad Street, Trenton. In the event that there is no new information to share with the full ICC Advisory Committee, scheduled meetings will be cancelled. If you wish to attend, please contact the Code Development Unit at (609) 984-7609 to confirm meeting dates.

Source: Lauren Sturm  
Code Development Unit

## NCPCCI EXAMS SUSPENDED

### The National Certification Program for Construction Code Inspectors (NCPCCI) is suspending all exams from April 1 - July 1, 2001.

Due to insurmountable problems with test development, the exams will not be available from April 1 through July 1, 2001. When the exams come back on-line on July 2, 2001, they will have been updated to the International Code Council's (ICC) family of codes.

This means that, beginning April 2, 2001, the exams will be based on the following model codes.

1A	Building One- and Two-Family	International Residential Code (IRC)/2000
2A	Building General	International Building Code (2000)/2000
3A	Building Plan Review	IBC/2000
2A	Electrical One- and Two-Family or National Electrical Code	International Residential Code (IRC)/2000 (NEC)/1999
2B	Electrical General	NEC/1999
2C	Electrical Plan Review	NEC/1999
3B	Fire Protection General	IBC/2000
3C	Fire Protection Plan Review	IBC/2000
4A	Mechanical One- and Two-Family	IRC/2000
4B	Mechanical General	International Mechanical Code (IMC)/2000
4C	Mechanical Plan Review	IMC/2000
5A	Plumbing One- and Two-Family	IRC/2000
5B	Plumbing General	National Standard Plumbing Code (NSPC)/2000
5C	Plumbing Plan Review	NSPC/2000
6B	Elevator General	IBC/2000

This list provides only the applicable model codes; it does NOT include any technical standards that might also be required to take specific exams. Questions may be addressed to Experior at 1-800-280-3926, or to me at (609) 984-7609.

Source: Emily W. Templeton  
Code Development

### Acceptable Practices for the Cleaning of Underground Storage Tanks

It has come to the attention of the Department of Community Affairs that the article entitled, "Abandonment of Underground Residential Heating Oil Tanks Under 2001 Gallons," which appeared in Volume 12, Number 4, Winter 2000 *Construction Code Communicator*, has caused some confusion. With regard to the acceptable practices for the cleaning of an underground storage tank (UST) set forth in Bulletin 95-1B, the Department of Environmental Protection (DEP) has determined that any liquid and/or sludge generated from cleaning a UST is considered solid waste. Prior to abandoning a UST, all contents of the tank, including any

materials introduced into the tank for the purpose of cleaning, shall be removed and recycled or disposed of properly. Therefore, **all absorbent materials, if used, must be removed prior to the introduction of an inert material, such as petrofill foam or cement slurry.**

If you have any questions on this matter, please contact the Code Assistance Unit at (609) 984-7609.

Source: Thomas C. Pitcherello  
Code Assistance Unit



## New Jersey Register Adoptions

**Date:** December 18, 2000      Rehabilitation Subcode  
Amendments

In addition to the amendments summarized below, the Department has corrected cross-references to the Uniform Fire Code throughout the Rehabilitation Subcode. These corrections are found in N.J.A.C. 5:23-6.2, 6.12A, 6.13A, 6.14A, 6.15A, 6.16A, 6.17A, 6.18A, 6.19A, 6.20A, 6.21A, 6.22A, 6.23A, 6.24A, 6.25A, 6.26A, and 6.28A.

**Adoption:** 32 N.J.R. 4437(b)  
Adopted Amendments: N.J.A.C. 5:23-3.14; 3.17; 6.1; 6.3; 6.4; 6.5; 6.6; 6.7; 6.8; 6.9; 6.12(e) and (o); 6.13(f) and (p); 6.14(a), (f) and (p); 6.14A; 6.15(e) and (o); 6.16(e) and (o); 6.17(e) and (o), 6.18(e) and (o); 6.19(o); 6.20(p); 6.21(g) and (s); 6.22(f) and (r); 6.23(f) and (q); 6.24(e) and (o); 6.25(g) and (u); 6.25A(e); 6.26(f) and (u); 6.27(i); 6.28(o); and 6.31(a), (f), and (i).

**Summary:** **N.J.A.C. 5:23-3.14:** This adopted amendment eliminates the reference to historic buildings in the Building Subcode. The Rehabilitation Subcode contains special provisions applicable to buildings that meet the standards for historic structures.

**N.J.A.C. 5:23-3.17:** This adopted amendment changes the referenced National Electrical Code (NEC) from 1996 to 1999.

**N.J.A.C. 5:23-6.1:** This adopted amendment corrects the statement that no requirements in the Rehabilitation Subcode are based on the cost of work. With regard to accessibility improvements, the extent of the improvement for accessibility is proportionate to the overall cost of the construction project. In an alteration or reconstruction project, the building owner decides what improvements will be made to the path of travel to the altered area. The improvements to the path of travel cannot be required to exceed 20% of the cost of the overall alteration or reconstruction project. In addition, this amendment corrects a cross-reference.

**N.J.A.C. 5:23-6.3:** This adopted amendment includes the Building Subcode's definition of the term "height", which is "the vertical distance from the grade plane to the average height of the highest roof surface," in the definition of the term "addition."

**N.J.A.C. 5:23-6.4:** First, this adopted amendment requires existing smoke control and emergency power systems to remain in operating condition. This requirement is found in N.J.A.C. 5:23-6.4(c)2, 6.5(c)2, 6.6(c)2, 6.7(c)2, and 6.31(a)4.

Second, this amendment prohibits work practices that expose building occupants to lead-based paint hazards. This requirement is found in N.J.A.C. 5:23-6.4(d)5, 6.5(d)6, 6.6(d)6, and 6.7(d)5.

Third, this amendment reflects the adoption of the 1999 edition of the National Electrical Code. This revision is found in N.J.A.C. 5:23-6.4(e)2iii and v, 6.5(e)6iii and v, 6.6(e)8iii and v, 6.7(e)8iii and v, 6.8(d)2, 3, 4, and 9, and 6.9(a)19.

Finally, this adopted amendment incorporates section 1512.3 of the Building Subcode, which provides requirements for roof covering replacement when it is a repair. This amendment is not made in other sections of the Rehabilitation Subcode because it is included in Materials and Methods (N.J.A.C. 5:23-6.8).

**N.J.A.C. 5:23-6.5:** This adopted amendment deletes the term "listed" because it is redundant.

**N.J.A.C. 5:23-6.6:** This adopted amendment requires the utilization of materials consistent with the existing construction type or the allowable construction type, whichever is less restrictive, when undertaking an alteration project. In addition, this amendment corrects a cross-reference.

**N.J.A.C. 5:23-6.8:** First, this adopted amendment incorporates the need for preservative-treated or naturally durable lumber when wood is installed in direct contact with, or in close proximity to, exposed earth.

Second, this adopted amendment deletes the reference to the code section regarding preservative-treated or naturally durable lumber for newly constructed balconies, decks, or porches because it is now incorporated in N.J.A.C. 5:23-6.8(b)15.

Third, this amendment deletes Section 3107.6 from the "Materials and Methods" requirements of the Rehabilitation Subcode because this section exceeds the Federal Flood Plain Management rules.

Finally, this adopted amendment adds a new subsection to address rehabilitation projects in manufactured homes.

**N.J.A.C. 5:23-6.9:** This adopted amendment requires newly created dwelling units and guestroom separation assemblies to comply with the rating and continuity requirements of the Building Subcode.

This amendment also provides requirements for places of assembly where fixed seating or assembly aisles are added.

Finally, this amendment requires compliance with the exterior wall maximum permitted openings and protected opening requirements of the Building Subcode for newly created openings in exterior walls:

**N.J.A.C. 5:23-6.12(e), 6.13(f), 6.14(f), 6.15(e), 6.16(e), 6.17(e), 6.18(e), 6.21(g), 6.22(f), 6.23(f), 6.24(e), 6.25(g), and 6.26(f):** These adopted amendments incorporate the Uniform Fire Code requirement for exit discharge lighting.

**N.J.A.C. 5:23-6.12(o), 6.13(p), 6.14(p), 6.15(o), 6.16(o), 6.17(o), 6.18(o), 6.19(o), 6.20(p), 6.21(s), 6.22(r), 6.23(q), 6.24(o), 6.25(u), 6.26(u), 6.27(i), and 6.28(o):** These adopted amendments require the installation of fire blocking and/or draft stopping when a reconstruction project exposes wall, floor, ceiling, or roof framing spaces that would otherwise require the installation of fire blocking or draft stopping in accordance with the Building Subcode.

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**N.J.A.C. 5:23-6.12(o), 6.13(p), 6.14(p), 6.15(o), 6.16(o), 6.17(o), 6.18(o), 6.19(o), 6.20(p), 6.21(s), 6.22(r), 6.23(q), 6.24(o), 6.25(u), 6.26(u), 6.27(i), and 6.28(o):** These adopted amendments require the installation of fire blocking and/or draft stopping when a reconstruction project exposes wall, floor, ceiling, or roof framing spaces that would otherwise require the installation of fire blocking or draft stopping in accordance with the Building Subcode.

**N.J.A.C. 5:23-6.14:** This adopted amendment serves to clarify the existing provisions by specifying, that, in order for a suppression system to be triggered, the work area must be 12,000 square feet or more gross floor area. In this adoption, there are two exceptions to the suppression requirements. These exceptions apply to auditoriums or participant sports arenas where the main floor is the level of exit discharge. The exceptions are adopted at NJAC 5:23-6.14(a)iii and iii.

**N.J.A.C. 5:23-6.25:** This adopted amendment changes the term “carbon monoxide alarm” to “carbon monoxide detector.” These terms had been used interchangeably in the Rehabilitation Subcode. All references to “carbon monoxide alarms” have been changed to “carbon monoxide detectors,” the proper term for a single station device, for consistency and clarity.

**N.J.A.C. 5:23-6.31:** First, this adopted amendment changes the second section of the table at NJAC 5:23-6.31(f)2 to reflect the Building Subcode requirements for protected and unprotected openings. The Building Subcode provides that walls with a separation distance of 10 feet or less may have unprotected openings with an aggregate area not exceeding 10 percent of the area wall. Openings that exceed 10 percent of the aggregate wall area must be protected.

Second, the note at the bottom of the table in paragraph NJAC 5:23-6.31(f)2 requiring protection for newly created openings in Use Groups R-2, R-3, and R-4 with a fire separation distance of three feet or less, is relocated to N.J.A.C. 5:23-6.9, New building elements, at subparagraph (a)22i.

Third, this adopted amendment incorporates the requirements contained in the Basic Requirements for Use Group E so the possibility of a change in use group to E without the appropriate fire protection systems is eliminated.

Fourth, this amendment states more clearly the requirement for local exhaust from newly introduced devices when equipment or operations produce irritating or injurious fumes.

Finally, the ventilation rate for corridors and utilities is corrected from .5 to .05, which is reflected in Table N.

Source: John N. Terry  
Code Assistance Unit

## Paperwork, Paperwork, Paperwork

One of my many duties as a construction code official for the Bureau of Regulatory Affairs is to conduct inspections to ensure that projects comply with the Uniform Construction Code (UCC). I know having to complete all that paperwork associated with the UCC – signing the technical section of the permit when a plan review is complete, filling out the inspection section every time an inspection is conducted, signing the approval section – can be very time consuming.

It is apparent that many people think this way. How does the Bureau of Regulatory Affairs know this? It's easy. It is not uncommon for our investigators to find a lack of documentation in construction files. Subcode technical sections are required forms and therefore are to be used. In addition, the regulations require a written record of inspections, including failed inspections, to be maintained. Oftentimes, inspection request forms or other assorted pieces of paper intended to schedule inspections and reflect the status of the inspection are used, and not the appropriate form. What happens if this paperwork is lost? Was the inspection performed? Did it pass or fail? These are just some of the questions the public asks when required information such as plan review, inspection, and sign-off information is missing. It is also a question you, as a code official, might be expected to answer in court should the public believe the plan review or inspection was not conducted properly. The Bureau of Regulatory Affairs will also expect an answer.

As a reminder, any licensed code official is permitted to perform a plan review that is within his or her technical license limits (RCS, ICS, and HHS). The inspector is permitted to sign the plan review section of a subcode technical section provided the subcode official initials the inspector's signature. By initialing the signature, the subcode official is taking responsibility for the plan review.

The inspector who performs the various inspections must also sign the appropriate section of the technical section and indicate “pass” or “fail.” The subcode official, and only the subcode official, is authorized to sign the subcode approval section of the technical section. The subcode official is responsible for ensuring that ALL required inspections have been approved, as well as making sure that a plan review has been completed before signing off.

Because the paperwork portion of the UCC provides documentary evidence of specific construction activities, it acts as your protection when questions are asked and evidence is sought. So, it is important that it is done right. If you have any questions, I may be reached at (609) 984-7672.

Source: Gerry Grayce  
Bureau of Regulatory Affairs



## 2000 International Mechanical and Fuel Gas Codes

The Department will be adopting the 2000 International Mechanical and Fuel Gas Codes this spring. Once adopted, these two codes may be used in projects in existing buildings. The Rehabilitation Subcode will be amended to include references to these codes. In addition, expanded pipe-sizing tables for new materials are included in the new model codes.

If you have any questions, contact the Code Assistance Unit at (609) 984-7609.

Source: Thomas C. Pitcherello  
Code Assistance Unit

## Shut-Off Switch Required for Public Pools

The New Jersey Department of Health and Senior Services (DOHSS) has recently adopted new public recreational bathing regulations at N.J.A.C. 8:26-3.24 applicable to existing swimming pools and wading pools that have a single drain, with or without a skimmer. These regulations are based, in part, on guidelines issued by the U.S. Consumer Product Safety Commission in Publication #363 009801, and are intended to make pools and spas safer from entrapment hazards.

Although not required by the Electrical Subcode, accessible pump shut-off switches within sight of swimming pools and wading pools are required in accordance with N.J.A.C. 8:26-3.24(e).

Electrical subcode officials are advised to issue a construction permit under the Electrical Subcode in accordance with N.J.A.C. 5:23-2.4(c) and perform inspections based on the requirements set forth in N.J.A.C. 8:26-3.24(e). The requirement for a pump shut-off switch comes from the Public Recreation Bathing regulations of the DOHSS. It does not fall within the scope of the Annual Certificate of Compliance for a pool outlined in N.J.A.C. 5:23-2.18C. In other words, the Electrical Subcode official does not enforce this requirement. However, when a pool owner is ordered by the local health department to install a pump shut-off switch, the pool owner must obtain a permit and the Electrical Subcode official must ensure that the installation complies with the Uniform Construction Code.

If you have further questions on this issue, please call John E. Sharp of the DOHSS at (609) 588-3124, or the Code Assistance Unit at (609) 984-7609.

Source: Ashok K. Mehta  
Code Assistance Unit

## Raising the Bar - Review and Revision of Educational Standards

The Bureau of Code Services has begun the exciting process of updating the educational standards for obtaining licensure as an inspector in the State of New Jersey. The Building Inspector RCS, ICS, and HHS courses have already been revised, as well as the Plumbing Inspector ICS and HHS courses. Upcoming projects include the Fire Protection Inspector courses, the Electrical Inspector courses, and finally the Elevator Inspector courses. A broad-based committee of representatives from their respective fields including instructors, code officials, and representatives of the code officials' organizations undertook this review and revision process. The project will be completed over a two-year period and will result in changes to the regulations and improvements to college course content and material.

The overall goal of this project is to modernize the current regulations governing course content to reflect changes that have taken place since those standards were last revised. For example, specific elements of the Barrier Free Subcode and the Rehabilitation Subcode are now required elements for all of the license courses mentioned above. Another goal of this updating process is to make the regulations more uniform and based on specific code issues. For instance, the current regulations speak to the need to instruct students in structural design and analysis techniques, whereas the new regulations require instruction in the relevant sections of the Building and Mechanical Subcodes. The new standards also require field inspection exercises and plan review exercises. Thus far, it has been the consensus of the committee that the courses need more uniformity and more specific subject matter. We are hopeful that we have achieved our goals to this point and I hope to hear from anyone with questions or concerns once the specific regulations are proposed.

If you have any questions, you may contact me by e-mail at [jdelesandro@dca.state.nj.us](mailto:jdelesandro@dca.state.nj.us), or by telephone at (609) 984-7834.

Source: John Delesandro  
Program Administrator  
Licensing Unit  
Bureau of Code Services

## Special Seminar Approvals

From time to time, the Education Unit receives requests for Continuing Education Units (CEU) to be awarded for attending seminars other than those in the regular schedule. The only seminars considered for credit are those offered by nonprofit educational, training, or model code organizations; and for a seminar to be approved, a course outline with time allotments along with the instructor's résumé must be submitted for review at least 60 days prior to the scheduled date of the seminar. This way, the Education Unit has enough time to review and evaluate the instructor's credentials and the seminar's content. Credit will not be awarded for requests submitted after the scheduled date of the seminar.

If you have any questions on this policy or procedure, please call the Education Unit at (609) 984-7820, or e-mail me at [smclaughlin@dca.state.nj.us](mailto:smclaughlin@dca.state.nj.us).

Source: Susan McLaughlin  
Bureau of Code Services

## Submitting Monthly Reports

It's time once again for our annual production of the *New Jersey Construction Reporter*. To date, we've published five annual reports. Now is a good time to remind everyone of their obligation each month to send in building permit and certificate reports. Most do the right thing. Each and every month, the appropriate time-important information on all the building permits and certificates issued is sent to us. If you are among the conscientious, you're doing a good job; keep it up. If you fall under the "delinquent" category, read on.

Many fail to meet the monthly requirement because of technical difficulties. Your communication software is incompatible. Your modem has the wrong baud rate. Your Pentium has thrown a rod. The network administrator skipped town. I can't really describe these problems, nor can I help you with them. But, we have a very good technical staff that may be of assistance. If you have computer problems, call Charles Pierson, Jr. or Richard Byrne of the Department of Community Affairs at (609) 292-7898. They may be able to point you in the right direction. They also might be able to rig up a stopgap measure, whereby the monthly deadline is met and we receive the required information — or a summary of it — by some temporary means, so we can meet our monthly publication schedule.

Some may not even know what a monthly permit and certificate report is, or what we do with them. After all, you're busy with the day-to-day job of running a construction office. I know this because I see the amount of work that is reported and it has increased each year over the last five by at least one billion dollars.

The monthly reports are a byproduct of vital and useful work. They're like hot dogs: left over from the main task at hand, but important nonetheless. Building permits and certificates are one of the few indicators available for every municipality every month. Unless you're a demographer, the significance of this last sentence may not be apparent. Demographers are people interested in numbers and trends. They're like accountants, only with less personality, and the information you provide really excites them. They use it to make observations about where people live and other settlement patterns. Other people find construction statistics useful, as well. School administrators use them to anticipate demand for new schools. Planners analyze the numbers to see where and what kind of development occurs. Business people view the data for telling signs of the economy.

Another use of the information is that it is a source of great civic pride. Mayors and other politicians love to track how they are doing. Construction statistics help them keep score. Last year, Jersey City was tops in three of the four major construction indicators we publish. It had the most work (\$354.4 million), the most new houses (1,783 units), and the most new office space (1,435,573 square feet). In terms of new retail space, our fourth indicator, New Jersey's second largest city, Jersey City, ranked fifth, with 218,315 square feet. How do I know all this? From the monthly reports you send. Space and time do not permit me to tell you about the town councilman who wanted to verify his town as New Jersey's warehouse capital. Suffice it to say that, thanks to the information from the monthly reports, I was able to show his community's good standing.

If you're still not convinced, let me add that monthly reports can be important to a town's pocketbook. Every ten years, the U.S. Census Bureau counts everyone in the country. These numbers are used to apportion political representation and to divvy public funds. In the off years, when the federal government does not count everyone, they guess. Building permits are one of the key ingredients in these estimates. The funds for that library your town wants to build may depend on your monthly reports.

So, if these monthly reports are being sent to us on time, thank you and keep up the good work. If they're not, remember that this is a requirement of the Uniform Construction Code. But more importantly, the information is vital and useful to a lot of people, so please make every effort to get off — and stay off — our delinquency list.

If you would like to see how we use this information and want a complimentary copy of the *Construction Reporter*, call, write, or send me an e-mail, and I would be glad to send you an issue. I can be reached at (609) 292-7898 (telephone); at (609) 633-6729 (fax), or at [jlago@dca.state.nj.us](mailto:jlago@dca.state.nj.us) (e-mail).

Source: John Lago  
Planning and Program Development

## Third-Party Agency Bills

The Bureau of Regulatory Affairs has been receiving complaints from third-party agencies that are finding it hard to collect permit fees from municipalities for services rendered under an executed contract. Under the Uniform Construction Code (UCC) at N.J.A.C. 5:23-4.5A(j), third-party agencies are required to bill a municipality for 20 percent of the permit fee upon issuance of the construction permit, 60 percent of the fee 30 days later, and the remaining 20 percent upon completion of the work covered by the permit. If a municipality does not reimburse the agency within 30 days of billing, it is in clear violation of the UCC.

As construction officials, you are the municipal experts in all aspects of the UCC. Therefore, it is your responsibility to inform your administrator of these requirements if a third-party agency notifies you of a billing problem.

Source: Louis J. Mraw  
Bureau of Regulatory Affairs

## UCCARS - The Next Generation Performance Requirements

The Uniform Construction Code Administrative Records System - the Next Generation (UCCARS-NexGen) will feature a relational database structure that will expand the querying and reporting functions available to local construction offices. A familiar menu-driven environment, with automatic error checks and data entry prompts, will create a user-friendly interface. Overall, UCCARS-NexGen shall bring local construction offices improved searching and reporting features, as well as easier, more efficient permit processing and data storage.

The proposed construction office automation software will require an industry standard PC of a Pentium III-800 megahertz processor speed. A total of 256 megabytes of RAM and a 20-gigabyte hard drive (larger if intending to store images such as property photos and blueprints) is recommended. A commercial web browser, either Netscape 4.7 or Internet Explorer 5.0 or higher, is sufficient to access UCCARS-NexGen. A cable modem and a T1/T3 network connection via TCP/IP (or similar networking communications protocol), or a 128K internal or external modem with dial-up connectivity offers maximum speed in Internet access. On average, a PC with these capabilities costs approximately \$1,200.

Source: Team UCCARS  
Division of Codes and Standards

## UCC Standard Forms On-Line

For your convenience, select Uniform Construction Code (UCC) standard forms, including the Construction Permit Application, can now be accessed on-line. These forms may be found at the following URL:

[http://www.state.nj.us/njbiz/f\\_list.shtml#community](http://www.state.nj.us/njbiz/f_list.shtml#community)

To access the UCC standard forms via the State website, point your browser and click on Business Info and Services, then click on Forms, and then click on Community Affairs Forms.

Source: Team UCCARS  
Division of Codes and Standards

## Building Inspectors, Footings, and Grounding

Currently, the Department is in the process of issuing a bulletin that will provide guidelines on how to create a more effective grounding electrode system by bonding together the concrete-encased rebars of the footings of a new structure and the grounding electrode conductor.

In order for a rebar to be considered a concrete-encased electrode, it must

- Be encased by at least 2 inches of concrete,
- Consist of at least 20 feet of one or more bare or zinc galvanized or other electrically conductive coated steel reinforcing bars or rods, and
- Be 1/2 inch or more in diameter.

A building subcode official/inspector shall have sole responsibility for field inspection and shall share joint responsibility with an electrical subcode official/inspector for plan review of the bonding connections to the rebars. Building subcode officials are required to make sure that, where applicable, a construction permit is issued for the bonding clamp prior to the clamping of conductive steel rebars and an inspection is conducted in accordance with the guidelines of this bulletin.

If you have questions on this matter, feel free to contact the Code Assistance Unit at (609) 984-7609.

Source: Ashok Mehta  
Code Assistance Unit

# Construction Code Communicator



State of New Jersey  
Donald T. DiFrancesco, Acting Governor

Department of Community Affairs  
Jane M. Kenny, Commissioner

Volume 13 Number 2

Summer 2001



## Manufactured (HUD) Homes: Installation & Assembly

It has been brought to the Department's attention that many in the field are under the impression that manufactured homes, which are a type of certified pre-manufactured construction, need not be inspected. This is untrue. The Uniform Construction Code, at N.J.A.C. 5:23-2.22, spells out the responsibilities of code officials with regard to pre-manufactured construction inspections and approval processes. Specifically, the responsibilities of code officials are:

1. To inspect the unit(s) to ensure that they are properly certified. A Federal Department of Housing and Urban Development (HUD) label is proof of certification. This HUD certification is a 2"x4" label that is located at the tail-light of each transportable section, approximately one foot from the floor, and one foot in from the road side;
2. To inspect the unit(s) for any visible signs of damage;
3. To inspect the unit(s) for any visible code violations;
4. To perform nondestructive tests (optional); and
5. To inspect the installation of the manufactured home and all work installed or completed on site in order to determine compliance with the regulations (manufacturer's installation instructions for the manufactured home) and the approved plans for the site work. It would be prudent at this time to emphasize that the manufacturer's installation instructions are to be filed with the local code enforcement agency at the



time of the construction permit application. The on-site work includes, but is not limited to, the foundation and support system, gas lines, sewer/water lines, electrical wiring, utility connections, partial shingle and siding installations, and the assembly of the unit(s). For doublewide units, the on-site work also includes connections at the roof, wall, and floor.

Another issue that has arisen is that certificates of occupancy have been issued for manufactured homes even though certain portions of the on-site work associated with the assembly and installation of the homes were not inspected. One conclusion might be drawn from this fact: there is confusion in the field as to who has the responsibility of inspecting those assembly and installation-related portions of work.

The confusion about the responsibility for inspection is created by the fact that certain portions of work, such as the assembly of roof jack/vents of gas furnaces, the assembly of water heaters, and the assembly of fireplaces, are completed at the construction site, not in the manufacturing facility. This is permitted by HUD's "Alternative Construction" approval. This approval is comprised of many requirements, such as design approval, performance of work, inspection, and approval. With regard to inspections, the approval stipulates that on-site work shall be inspected by the manufacturer's Inplant Inspection Agency (IPIA), or by a qualified and experienced independent inspector acceptable to the IPIA. HUD's approval, however, does not stipulate a time frame for these inspections. Invariably, the inspection is not conducted during the installation, but is conducted much later. This raises two concerns: 1) Work might be covered up, which makes adequate and proper inspections nearly

*(continued on page 2)*

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impossible; and 2) a certificate of occupancy cannot be issued without the inspection and approval of this work. As a result, the Bureau of Code Services has come across many situations where inspection reports have indicated substandard conditions. Serious fire hazards have gone undetected for years at a time, which is a growing problem.

We have expressed our concerns regarding this issue to HUD. HUD is currently looking into the issue, but because of the Federal government's lengthy rulemaking process, changes might not occur quickly enough. The Department has decided that the local code officials shall be responsible for the inspection of all on-site work associated with the assembly and installation of manufactured homes, including alternative construction items. The inspection(s) shall be performed before a certificate of occupancy is issued. Inspections are to be performed to ensure compliance with the manufacturer's installation instructions, approved drawings and details, and/or the applicable provisions of the Federal Manufactured Home Construction and Safety Standards (MHCSS).

Additional information regarding manufactured homes may be found in DCA Bulletins Nos. 80-6 and 88-2. If you have questions about this issue, you may contact me by telephone at (609) 633-6865.

Source: Paul Sachdeva  
Bureau of Code Services

## Kudos to the Technical Assistants!

The Department would like to congratulate the third graduating class of Technical Assistants. Twenty-eight proud recipients gathered at the Trenton Club on April 19, 2001 for the presentation of the certificates. Department of Community Affairs' Deputy Commissioner Anthony Cancro, together with William M. Connolly, Director of the Division of Codes and Standards, presided over the ceremony.

The role of the Technical Assistants is an important one. They are the main supporting staff in the offices of construction officials throughout New Jersey's municipalities. It is with their help that the effectiveness of the Uniform Construction Code is ensured.

If you are interested in obtaining more information about the Technical Assistant program, please contact the Education Unit in the Bureau of Code Services at (609) 984-7820.

Source: Susan H. McLaughlin  
Education Unit  
Bureau of Code Services

## New Energy Codes are Here

By the time this Communicator reaches you, unless something drastic happens, New Jersey will have new energy codes in place. The code for residential construction will be the 1995 CABO Model Energy Code. The code for commercial construction will be the 1999 version of ASHRAE 90.1. These codes are significantly different from the previous energy codes.

The CABO Model Energy Code is more stringent than the 1993 BOCA National Energy Conservation Code, which was based on the 1980 edition of ASHRAE 90A. The code will require thicker insulation than was required by BOCA. The rules of thumb for what is acceptable may change based on where you are in the State. In addition, the CABO code contains a provision that requires insulation on basement walls, even those below grade. The proposed New Jersey adoption of the CABO code contains an exception, which will allow builders to install high efficiency equipment in lieu of insulating the basement.

The 1999 version of ASHRAE 90.1 has been billed as a more "user friendly" version of the standard. The technical requirements of the standard remain substantially the same with some modifications to the lighting provisions.

Computer software to help comply with both codes is available. We expect the use of this software to make verifying energy compliance quicker and easier.

As with all adoptions of subcodes, there will be a six-month grace period. Therefore, the effective date of these codes should be on or about January 16, 2002. To help you learn the new rules of thumb, the new computer software, and the nuances of the new code, seminars will be offered in the fall of 2001. The Education Unit will be issuing a special mailing to alert you of the times, dates, and locations of these seminars.

Source: Michael Baier  
Office of Planning and Program Development  
Division of Codes and Standards

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## Construction Permit Application Forms Now on the Web

Throughout New Jersey, there is a movement afoot among State and local government agencies to improve the delivery of important government services to construction code enforcement offices by using information technology and the Internet.

As a recent graduate from the Technical Assistant Certification Program, I was very excited to hear about a change made to New Jersey's website that will help with the delivery of services to those seeking construction permits. The Uniform Construction Code Administrative Records System (UCCARS) software that most use today was written well before widespread access and use of the Internet. Although UCCARS was ahead of its time in 1987, users were not able, and are still not able, to participate in e-government. But, all of that is about to change. In fact, the availability of the construction permit application and related subcode technical sections files from the State's website as portable document format (.PDF) files is the first step in that direction.

Electronic forms now available on New Jersey's website offer a new, convenient service. With the click of the mouse, permit applicants can simply print out the forms they need at their convenience and in the comfort of their own homes. Though the forms must still be completed by hand and mailed or delivered in person to your local construction office, members of the public no longer have to make the first trip in to pick up the blank forms.

Looking ahead, UCCARS - Next Generation (NG), when in full production, will ultimately enable permit applicants to submit permit applications, construction plans, and pay the associated fees over the Internet.

For now, however, the offering of printable blank construction permit application forms is our first step through the "Gateway to the Future." Imagine the services we'll be providing the public in 2002 when UCCARS-NG is in production!

To view the Construction Permit Application and related forms on the Internet, check out New Jersey Open for Business at [www.state.nj.us/njbiz/](http://www.state.nj.us/njbiz/).

Source: Lynn Ferrara  
Team UCCARS  
Division of Codes and Standards

## National Exams

"National exams" are the licensing exams that are required by the Department of Community Affairs for licensure as a Uniform Construction Code (UCC) inspector. The exam program has been known as the ETS (Educational Testing Service) exams, the Chauncey Group exams, and (now) the Experior exams. These names refer to the group that has developed and administered the exams. The official name of the testing program is the National Certification Program for Construction Code Inspectors.

When the exams were first offered—and for approximately 10 years thereafter, the edition of the codes being tested coincided with New Jersey's adoption of the most recent edition of national model codes. This is no longer true.

Effective July 2, 2001, the national exam program will be offering updated exams based on the International Code Council (ICC) model codes for the building, elevator, fire protection, and mechanical codes.

The plumbing exams will be based on both the International Plumbing Code (IPC) 2000 and the National Standard Plumbing Code (NSPC) 2000; test takers may take either the IPC or the NSPC into the exam and will be able to answer all the questions from either code. Test takers do not need both codes.

The 2A electrical exam will be based on both the International Residential Code 2000 and the National Electrical Code (NEC) 1999. The other electrical exams will continue to be based on the NEC 1999.

At this time, only two of the ICC codes have been adopted in New Jersey. The International Mechanical Code (IMC) and the International Fuel Gas Code (IFGC) were recently adopted as subcodes of the UCC on June 4. The other International codes are not adopted subcodes of the UCC.

For the foreseeable future, there will continue to be a difference between the editions of the model codes used in the courses that deal with the UCC and those used for the national exams.

For questions about which exams are required for which licenses, please contact the Licensing Unit at (609) 984-7834. For questions about the national testing program itself, please contact me at (609) 984-7609.

Source: Emily Templeton  
Code Development

## We're Looking for a Few Good Men or Women

to tell their stories about the Uniform Construction Code (UCC). As many of you know, January 1, 2002 is the 25th anniversary of the adoption of the UCC. We would like to mark the occasion by publishing a special issue of the *Communicator*. Please submit any thoughts, reflections, or anecdotes that you would like to share to Megan Sullivan, Division of Codes and Standards, Department of Community Affairs, PO Box 802, Trenton, NJ 08625 or e-mail them to [msullivan@dca.state.nj.us](mailto:msullivan@dca.state.nj.us).

Source: Amy Fenwick Frank  
Office of Planning and Program Development

## New Jersey Register Adoptions

### Formal Technical Opinion (FTO)-3 – Fire Escapes

The Department has revised and reissued FTO-3, Fire Escapes. The provisions of this FTO provide code users with a methodology for the design and construction of fire escapes as a second means of egress.

### Bulletin No. 01-1 – Railroad Facilities and Superfund Sites

This bulletin resulted from a court decision that addressed whether local enforcing agencies have the authority to issue permits and conduct inspections on certain federally regulated facilities and construction projects.

**Date:** April 16, 2001 BOCA Corrections — Corrections to the Model Code Adoption  
**Adoption:** 33 N.J.R. 1195(a)

**Summary:** N.J.A.C. 5:23-3.11: This adopted amendment corrects an outdated cross-reference to the Barrier Free Subcode's Recreation Standards.

N.J.A.C. 5:23-3.11A: This adopted amendment applies to the plan review of public school facilities. The term "unit" is replaced with the more exact term "instructional spaces."

N.J.A.C. 5:23-3.14: This adopted amendment deletes Section 1021.2, exception #3, in its entirety from the Building Subcode. In the Building Officials and Code Administrator's (BOCA) National Building Code/1996, this section establishes guardrail height requirements along open-sided floor areas that are less than 30 inches above the floor or grade. The deletion makes this section of the Building Subcode consistent with other sections of the Building Subcode.

N.J.A.C. 5:23-4.3A: This adopted amendment requires that the installation or alteration of a fire protection system, or an addition that changes the classification of a building, be reviewed by an agency with the appropriate level of classification. This amendment also deletes outdated references.

N.J.A.C. 5:23-9.8: This adopted amendment provides that a single exit condition is permitted in buildings of Use Group R-1 or R-2 that are "not more than two stories in height from floors that are not more than 16 feet above exterior grade."

**Date:** May 7, 2001 Liquefied Petroleum Gas Installations  
**Adoption:** 33 N.J.R. 1399(d)

**Summary:** N.J.A.C. 5:23-2.24, 3.11: These adopted amendments assign jurisdiction over vapor delivery liquefied petroleum gas installations utilizing containers with an aggregate water capacity of 2,000 gallons or less to the plumbing subcode official.

**Date:** June 18, 2001 2000 International Mechanical and Fuel Gas Codes  
**Adoption:** 33 N.J.R. 2090(a)

**Summary:** N.J.A.C. 5:23, 3.17, 3.20, and 3.22: The Department has adopted, with modification, the 2000 International Mechanical Code and 2000 International Fuel Gas Code.

**Date:** June 18, 2001 Training Fees  
**Adoption:** 33 N.J.R. 2097(a)

**Summary:** N.J.A.C. 5:23-4.19 and 4.20: These amendments exempt housing units that are legally restricted to residents of low or moderate incomes and demolition work from training fees. Required fees are to be forwarded to the Division of Codes and Standards' Fiscal Office.

Source: Megan K. Sullivan  
Code Development  
Division of Codes and Standards

## Building Safety Conference of New Jersey 2001

Bright sun and warm temperatures greeted attendees at the 20th anniversary celebration of the New Jersey Building Safety Conference, which was held at Bally's Park Place in Atlantic City. Over 650 participants from the code enforcement community, including inspectors, technical assistants, annual permit holders, and their guests took advantage of the activities offered.

The first order of business was the presentation of a special award to William M. Connolly, Director of the Division of Codes and Standards, given by the associations who originally comprised the Building Safety Conference. These associations include the Building Officials Association of New Jersey, the Municipal Electrical Inspectors Association, the New Jersey Fire Prevention and Protection Association, and the New Jersey Plumbing Inspectors Association. Mr. Connolly was recognized for his commitment and dedication, his many years of service, and most importantly, his innovative ideas in code enforcement.

The Department of Community Affairs' Deputy Commissioner, Anthony Cancro, was next to address the audience. He emphasized the importance of the services provided by those in code enforcement. Mr. Connolly then shared his heartfelt appreciation while also making the point that there is still much to learn and put into action.

Recognition was also given to the inspectors and the technical assistant of the year, selected by their respective associations for outstanding accomplishments and achievements in their fields. The recipients were:

- Thomas J. Pelaia, Bloomfield Township, Fire Protection Inspector
- Richard K. Adams, Old Bridge Township, Plumbing Inspector
- Thomas Millar, West Windsor Township, Building Inspector
- Michael Jahn, Asbury Park City, Long Branch City, Neptune Township, Neptune City Borough, Spring Lake Borough, West Long Branch, Electrical Inspector
- Brenda Sirkis, West Windsor Township, Technical Assistant

Other activities included a "crackerbarrel" session with a long list of topics, which is an activity where a subject of interest is selected, and is presented in ten minutes. The audience then has ten minutes to ask questions. This is always a very popular part of the conference because it allows an opportunity to make new contacts and interact with one's peers. The 21 training seminars offered on different aspects of the codes were filled near to capacity with interested attendees.

New friends were made and old rivalries renewed at the sixth annual golf outing, held at the Mays Landing Country Club. The tournament began with a continental breakfast and tee off. Range balls, golf carts, and lunch were provided.

While the code enforcement personnel were enjoying their experiences, those who brought their "significant others" were enjoying the planned activities. Participants in the floral design activity held for the spouses of code enforcement officials created the flower arrangements on each table at the luncheon. Some other activities included a day trip to Hereford Inlet Light House in North Wildwood, and historic Cape May with a luncheon at the Pelican Club and some time for shopping.

On behalf of the entire Building Safety Conference Committee, we thank you for your participation and hope that you had a very enjoyable time. We hope that you will be able to join us again next year.

Source: Susan H. McLaughlin  
Supervisor, Education Unit  
Bureau of Code Services



### Award Winners

(L-R) Richard Adams (Plumbing Inspector of the Year), Thomas Millar (Building Inspector of the Year), William M. Connolly (Service Award), Brenda Sirkis (Technical Assistant of the Year), Thomas J. Pelaia (Fire Protection Inspector of the Year), Victor Timpanaro for Michael Jahn (Municipal Electrical Inspector of the Year)



### 20th Annual Building Safety Conference



#### Technical Assistant of the Year

(L-R) William M. Connolly (Director, Division of Codes and Standards), Brenda Sirkis (Technical Assistant of the Year), Linda Aiello (Presenter, NJ Association of Technical Assistants)



Michael Jahn, Electrical Inspector of the Year



#### Plumbing Inspector of the Year

(L-R) Anthony Falasco (Presenter, Plumbers' Association), Richard K. Adams (Plumbing Inspector of the Year), William M. Connolly (Director, Division of Codes and Standards)



#### Electrical Inspector of the Year

(L-R) Richard Marshall (Presenter, Municipal Electrical Inspectors Association), Victor Timpanaro accepting for Michael Jahn (Electrical Inspector of the Year), William M. Connolly (Director, Division of Codes and Standards)



**Building Inspector of the Year 2001**

(L-R) John Scialla (Presenter, President, BOANJ), Thomas Millar (Building Inspector of the Year), William M. Connolly (Director, Division of Codes and Standards)



**Fire Protection Inspector of the Year**

(L-R) John Lightbody (Presenter, President, NJ Fire Prevention and Protection Association, Thomas Pelaia (Fire Protection Inspector of the Year), William M. Connolly (Director, Division of Codes and Standards)



Department of Community Affairs  
Deputy Commissioner Anthony Cancro  
addresses the audience at the Awards  
Luncheon.



**William M. Connolly Service Award for the Associations**

(L-R) John Lightbody (NJ Fire Prevention and Protection Association), John Scialla (Building Officials Association of NJ), William M. Connolly (service award), Richard Adams (NJ Plumbing Inspectors Association), and Robert Rogers, Jr. (Municipal Electrical Inspectors Association)

## UCCARS the Next Generation

The Uniform Construction Code Administrative Records System - the Next Generation (UCCARS-NG) advisory committee has been essential in identifying the overall UCCARS-NG software components. The Office of Information Technology has offered, and the Division of Codes and Standards accepted, a project plan for the development and implementation of UCCARS.

The new and innovative technical infrastructures of UCCARS-NG will not only improve upon the functionality of the existing software, but will create the avenue for e-government transactions. The main modules of the proposed UCCARS-NG software comprise system administration: permit application, inspections, feedback, query tools, and payments and reporting. System administration module values that are unique to each municipality, such as fee schedules, are established within the software. The permit application module performs routine construction document processing and provides for on-line data entry of permits. The inspection module manages the scheduling and tracking of inspections. The feedback module provides applicants and residents with a means for tracking the progress of a permit. Querying tools offer users improved reporting functions using UCCARS data. The payment module records and tracks payment information. This feature is readily available for review by a permit applicant. User defined reports and ad hoc reports may be generated from the reporting module.

UCCARS-NG will provide pop-up windows and drop down menus that will deliver a functionally rich environment to the desktop user community. A high-end database management protocol will provide users with robust searching capabilities, reliability, and security when accessing data. UCCARS-NG will benefit users by improving data quality and automating routine tasks.

We welcome your suggestions for improving UCCARS. Comments may be directed to Team UCCARS at [UCCARS@dca.state.nj.us](mailto:UCCARS@dca.state.nj.us).

Source: Team UCCARS  
Division of Codes and Standards

## New Support Option for UCCARS-TOP Users

The Division of Codes and Standards is offering a new support option for UCCARS-TOP users. Symantec, a broad-based enterprise specializing in Internet security technology, produces a remote access program called pcAnywhere. If installed, this software will allow the Division to connect to your computer, view your screen, and perform the following services over the phone:

- Troubleshoot and fix program errors;
- Upgrade the UCCARS program;
- Assist with the transmission of data in the event the CrossTalk program fails; and
- Analyze and correct database errors.

If you wish to utilize this option, your town will need Windows 95, 98, ME, NT 4.0 or 2000, a modem that works in Windows (many newer computers have modems that do not work with the CrossTalk program, but work fine with the Windows programs, such as AOL or other Internet access programs), and the phone number of the line to which your modem is connected.

Network users: If you use UCCARS on a networked computer, pcAnywhere may already be installed on your server. Many towns use a network administration company to run their networks and many of these companies use pcAnywhere to remotely manage the servers. If this is the case in your town, access to the server needs to be set up in order for the Division to access your UCCARS program. Contact your network administrator to see if pcAnywhere version 8.0 or later is installed on your server and is running on Windows NT or 2000.

The pcAnywhere program may be purchased directly from Symantec at <http://www.symantec.com> for \$179 or from Microwarehouse for \$169.

If you have any questions about this service, or if you would like to set up access to the program, contact Richard Byrne at (609) 292-7899.

Source: Team UCCARS  
Division of Codes and Standards

## Down in the Basement

It has been brought to the Department's attention that the article, "Basements vs. Crawlspace," which appeared in the Spring 2001 edition of Construction Code Communicator has caused some misunderstanding in the field. Item #5 in the article stated, "basements require a fire separation." That is incorrect. It is more accurate to say, "basements may require a fire separation." For example, in a mixed-use building with a business use in the basement and a residential use on the first floor, a fire separation might be required for the floor/ceiling assembly.

Thanks to all the code officials who noticed the omission of the word "may" for bringing it to our attention so that we can take this opportunity to clarify the original article.

If you have any questions, please do not hesitate to contact the Code Assistance Unit at (609) 984-7609.

Source: Jeffrey Applegate  
Code Assistance Unit

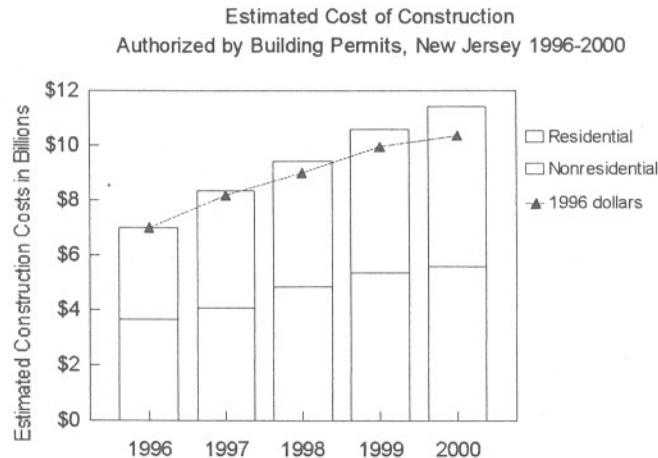


## 2000 HIGHLIGHTS

The following is a reprint of the New Jersey Construction Reporter. The New Jersey Department of Community Affairs publishes the Reporter each month, providing information on residential and commercial construction activities.

For information from other issues go to [www.state.nj.us/dca/codes/cr/conrep.html](http://www.state.nj.us/dca/codes/cr/conrep.html)

New Jersey's construction economy reached high levels in 2000, but the rate of growth was a little slower compared to 1999. The estimated cost of all work authorized by building permits was \$11.4 billion. This was 7.6 percent more than last year. In real terms, based on an average inflation rate of 3.4 percent, the estimated cost of construction grew by 4.1 percent, less than half the yearly rate of growth for 1998-99.



Residential construction totaled \$5.6 billion, or 49 percent of the total amount of activity. Office, retail, and other nonresidential structures accounted for \$5.8 billion, 51 percent all work. Compared to 1999, residential activity increased by only 3.7 percent. The rate of growth for 1998-99 was 11.7 percent. Nonresidential work grew by about the same rate between 1999-2000 and 1998-99, 11.6 percent and 13.6 percent, respectively.

### Major Construction Indicators

Three of the four major indicators published by the Department of Community Affairs exceeded last year's levels. The exception was new retail space. New retail space in 2000 totaled nearly 6.1 million square feet, 2.7 percent below last year's total. The estimated cost of work authorized by building permits was \$803.5 million more than last year. This was the first time in five years, however, that the annual increase was less than one billion dollars. The number of new dwellings in 2000 reached a level exceeded only by those in the late 1980s. New Jersey communities authorized 38,065 new housing units in 2000. This was over 10,000 units more than in 1996, but only 529 units more than last year. The amount of new office space grew by nearly 2.3 million square feet, or 17.3 percent, compared to 1999.

Major Construction Indicators, New Jersey: 1996-2000				
Year	Estimated Cost of Construction	Authorized Housing Units	Authorized Office Space (square feet)	Authorized Retail Space (square feet)
1996	\$7,028,424,990	27,577	6,229,515	4,880,139
1997	\$8,346,533,114	30,017	10,409,171	5,688,955
1998	\$9,396,755,517	35,676	12,703,824	7,921,892
1999	\$10,584,167,530	37,536	13,237,891	6,229,471
2000	\$11,387,683,514	38,065	15,531,039	6,063,412
<i>Difference Between 1999 and 2000</i>				
1999-2000	\$803,515,984	529	2,293,148	-166,059
Percent Change	7.6%	1.4%	17.3%	-2.7%

Source: N.J. Department of Community Affairs, 6/11/01



### Construction by Region

Northern and central New Jersey each accounted for about 38 percent of all work authorized by permits. Southern New Jersey had about 20 percent of all activity. ("State Buildings," which include structures under construction for State colleges and universities, turnpike and economic development authorities, and other instruments of the State, accounted for 4.2 percent of all work.) Most new housing was built in central New Jersey communities. This region accounted for over 16,000 new dwellings. Two central New Jersey counties, Ocean and Monmouth, had the most new houses in 2000, with 5,688 and 3,563 authorized units, respectively.

<b>Major Construction Indicators by Region: 2000</b>				
<b>Region</b>	<b>Estimated Cost of Construction</b>	<b>Authorized Housing Units</b>	<b>Authorized Office Space (square feet)</b>	<b>Authorized Retail Space (square feet)</b>
North	\$4,311,533,675	12,640	6,843,466	2,179,721
Central	4,306,040,162	16,064	6,716,941	2,477,626
South	2,294,848,823	9,361	1,674,053	1,406,065
State Buildings	475,260,854	0	323,579	0
<b>New Jersey</b>	<b>\$11,387,683,514</b>	<b>38,065</b>	<b>15,558,039</b>	<b>6,063,412</b>
<i>Percent Distribution by Region</i>				
North	37.9%	33.2%	44.0%	35.9%
Central	37.8%	42.2%	43.2%	40.9%
South	20.2%	24.6%	10.8%	23.2%
State Buildings	4.2%	0.0%	2.1%	0.0%
<b>New Jersey</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
Source: N.J. Department of Community Affairs, 6/11/01				
Northern New Jersey: Bergen, Essex, Hudson, Morris, Passaic, Sussex, Union, and Warren Counties				
Central New Jersey: Hunterdon, Mercer, Middlesex, Monmouth, Ocean, and Somerset Counties				
Southern New Jersey: Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, and Salem Counties				

### Boom Towns

Three New Jersey cities were among the municipalities with the most activity. Atlantic City in Atlantic County had \$304 million of construction. More than two-thirds was for a casino, hotel, and parking complex that broke ground late in December. The 40-story hotel will have 2,000 rooms and has an estimated construction cost of \$202 million. This is the largest permit issued for a single building in the more than five years that the Department has published construction statistics.

New Jersey's largest city, Newark in Essex County, had \$192.9 million of construction. A lot of different types of development between one and ten million dollars broke ground. These included several college and university dormitories, and youth shelters. Newark had 685 new homes in 2000, ranking fifth among all localities. Jackson Township in Ocean County had the most new dwellings: 1,137 authorized units. A new county library and a new elementary school, as well as several new assisted-living facilities, were among the big projects in Jackson. Residential construction, however, accounted for more than 75 cents of every dollar authorized by building permits. Jersey City in Hudson County, which in 1999 led all municipalities with the most construction, the most new houses, and the most new office space, ranked fourth among all localities with \$158.3 million in estimated construction costs. The new projects included a ten-story hotel, 646,000 square feet of new office space (third among all localities), and 203 new homes.

<b>Major Construction Indicators, Top New Jersey Municipalities: 2000</b>						
Rank	Municipality	County	Estimated Cost of Construction	Authorized Housing Units	Authorized Office Space (square feet)	Authorized Retail Space (square feet)
1	Atlantic City	Atlantic	\$304,044,063	28	3,280	0
2	Newark City	Essex	192,875,093	685	223,654	67,525
3	Jackson	Ocean	175,537,803	1,137	205,198	6,806
4	Jersey City	Hudson	158,266,183	203	645,532	324
5	West Windsor	Mercer	153,090,750	274	223,037	28,727
6	Bridgewater	Somerset	139,450,022	126	760,164	1,680
7	Hopewell Twp.	Mercer	138,093,008	84	902,111	0
8	Monroe	Middlesex	134,978,217	435	29,004	0
9	Franklin	Somerset	129,676,437	1,054	382,012	0
10	Parsippany-Troy Hills	Morris	129,032,043	302	1,011,124	6,500
	Top Municipalities		1,655,043,619	4,328	4,385,116	111,562
	<b>New Jersey</b>		<b>\$11,387,683,514</b>	<b>38,065</b>	<b>15,558,039</b>	<b>6,063,412</b>

Source: N.J. Department of Community Affairs, 6/11/01

#### New House Prices

The cost of a new house in New Jersey increased in 2000. Just over 25,000 new houses were completed, occupied, and began enrollment in a new home warranty program. Most new houses must enroll in a warranty program. The exceptions are rental units and houses built by homeowners who acted as their own general contractors. The median sales price of all the new houses that were completed in 2000 was \$231,728. This was 3.2 percent more than the median sales price last year. Bergen County had the most expensive homes. Half of the 1,006 new houses that were completed, occupied, and enrolled in a new home warranty program in 2000 cost more than \$423,630. Hunterdon and Somerset Counties had median sales prices of \$374,900 and \$367,759, respectively.

<b>New House Prices</b>			
Year	Number of New Houses	Median Sales Price	Percent Change from Previous Year
1996	20,930	\$183,000	
1997	21,640	\$190,000	3.8%
1998	23,884	\$209,900	10.5%
1999	24,479	\$224,496	7.0%
2000	25,058	\$231,728	3.2%

Source: N.J. Department of Community Affairs, 6/11/01

#### Rehabilitation Subcode

In 1997, New Jersey became the first State in the country to adopt a separate building code for the rehabilitation of existing structures. The purpose of the Rehabilitation Subcode was to remove regulatory barriers that added cost, and discouraged repair and renovation of existing buildings. Since its adoption, New Jersey's Rehabilitation Subcode has received national attention and honors. In the fall of 1999, the subcode was cited as one of ten winners in the "Innovations in American Government Award" sponsored by the Ford Foundation, the John F. Kennedy School of Government at Harvard University, and the Council for Excellence in Government.

How has the subcode fared three years later? The estimated cost of construction for additions and alterations to existing buildings totaled \$5 billion in 2000, or about 44 percent of the estimated cost of all construction work authorized by building permits. While the estimated cost of construction authorized by permits issued for new construction grew by 4 percent between 1999 and 2000, the estimated cost of all additions and alterations to existing structures increased by nearly three times that much (11.9 percent). Rehab work is especially important to New Jersey's cities. Newark and Jersey City had the most renovation work in 2000 (\$127.6 million and \$59.3 million, respectively).

Source: John Lago  
Office of Planning and Program Development

## Applications for Certificates of Occupancy

The Department has been made aware of the fact that code officials are misinterpreting Section 5:23-2.23(h) of the Uniform Construction Code, "Applications for certificates of occupancy," in the field.

One might ask, "Why is the application so confusing?" When a certificate of occupancy is needed, a form is filled out, the proper fees are submitted, and hopefully, an applicant receives his or her certificate of occupancy within ten days. It seems pretty straight forward, right? Well, not so fast.

Oftentimes officials request that the application for a certificate of occupancy be submitted with the permit application. By following this procedure, all required fees are paid up front, which at first may seem logical, but actually defeats the purpose of applying for a certificate of occupancy.

Here's why: Application Form No. 270 requires that applicants submit a written certification stating that he or she has not deviated from the approved construction plans (insignificant deviations need not be noted). By submitting this form, the applicant also certifies that the construction plans are in conformance with all the adopted subcodes.

The Department understands the difficulties inspectors face when trying to ensure absolute code compliance, as well as

strict conformance with the approved plans. Therefore, applications for a certificate of occupancy are a way to place the burden of compliance on the shoulders of the person who is responsible for the work covered under the permit – the contractor.

Unless an application for a certificate of occupancy is submitted prior to the completion of the work covered by the permit, which guarantees true certification, neither the permit applicant nor the code official will be protected when deviations and/or violations are uncovered. Therefore, it is imperative that applications for certificates of occupancy be submitted after the work covered by the permit is complete.

If you have any questions, please contact the Office of Regulatory Affairs at (609) 984-7672.

Source: Louis J. Mraw  
Supervisor  
Office of Regulatory Affairs



Center for Government Services  
33 Livingston Avenue, Suite 200  
New Brunswick, NJ 08901-1979



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# Construction Code Communicator



State of New Jersey  
Donald T. DiFrancesco, Acting Governor

Department of Community Affairs  
Jane M. Kenny, Commissioner

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Fall 2001

## When is a Demolition Permit Required?

The Department of Community Affairs has become aware of some confusion in the field about when permits are required for demolition. As a general rule of thumb, a true demolition permit is required when the entire building is being demolished. Under the Rehabilitation Subcode, when a portion of a building is being demolished, this type of work is considered an alteration or reconstruction. In an alteration or reconstruction project, a permit may be issued for the portion of the building being demolished in conjunction with a construction permit.

The exception to this rule is that, when a building or structure is going to be demolished and the foundation left in place, a full demolition permit is required. Any portion of the new structure built on the existing foundation is treated as new construction and is required to comply with the Building Subcode; the existing foundation is required to comply with the Rehabilitation Subcode.

As a reminder, when UCCARS is used to record demolitions, special census item numbers indicate the type of structure demolished. For more information on how to determine census item numbers, please refer to the article entitled, "Recording Housing Demolitions," which appeared in the Spring 2001 edition of the *Construction Code Communicator*.

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

Source: Marcel Iglesias  
Code Assistance Unit

## Group Overnight Stays

The Division of Fire Safety has adopted new rules regarding group overnight stays. Group overnight stays are best described as follows: when a structure that was not designed or constructed as a residential use houses a group (like the Boy Scouts or Girl Scouts) for an overnight slumber party. Recently, I had the distinct pleasure of sleeping on the floor at the Liberty Science Center with my son and 300 of my "closest" friends.






According to this Fire Code regulation, a group overnight stay does not trigger a change in the use group of the building if the facility holds six or fewer of these "slumber parties" within a calendar year. Even though there is no change in use, the building owner is required to register the building with the fire official having jurisdiction. The fire official should refer to section F-709.1 for the requirements associated with this temporary use of the building.

If the facility holds seven or more overnight stays, the building is then considered to have undergone a change in use and a Certificate of Occupancy is needed. In this instance, an application for a change of use is required to provide sufficient documentation to the Construction Department to verify compliance with the Rehabilitation Subcode for the new R-1 use.

We, as code officials, need to be aware that temporary uses do not always trigger a change in use group. Should you have any questions regarding this requirement, please feel free to contact me. I may be reached at (609) 984-7609.

Source: John N. Terry  
Code Assistance Unit

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## Reminder: How Rehabilitation Subcode Requirements are Established through Categories of Work

The provisions of the Rehabilitation Subcode, or “Rehab Code,” move away from the strict dimensional requirements of the building code, which is oriented toward new construction, and instead focus on work in existing structures. Since its adoption in 1998, the Rehab Code has made the reuse of buildings safer, cheaper, and easier; in doing so, it has encouraged the preservation of historic buildings and the reuse of other structures.

In the fall of 1997, just prior to adoption, the Department of Community Affairs launched a statewide effort to train local officials in the Rehab Code’s fundamental principles and common sense provisions. Recently, it has been brought to the Department’s attention that many in the field believe that, because it has been nearly four years since this initial training, it would be beneficial to have a refresher course. In the meantime, the following is intended to serve as a brief reminder of how to recognize the Rehab Code’s categories of work, which is the first step when applying the code to a particular project. Once the category of work is established, the code requirements are applied:

**Repair:** “Repair” means to fix a building component or material that is worn or damaged with a component or material that is the same or nearly the same. Examples of repair are patching drywall, fixing a stair tread or a handrail, and re-roofing. In most cases, the Rehab Code allows a repair to be made with the same material, fixing “like with like,” even if the material is no longer used in new construction.

**Renovation:** “Renovation” work includes the replacement of interior finishes, doors, windows, trim, or other materials with new materials that serve the same purpose. Renovations differ from repairs in that the replacement is not “like with like.” To ensure that the use of these materials does not make the building less safe, the materials and the methods of installation must comply with the material standards listed and the installation criteria given in the construction code.

**Alteration:** An “alteration” involves reconfiguring interior space by adding or removing walls, doors, stairs, or windows, or by changing the height of a ceiling. The primary concern with an alteration project is that it not adversely impact egress. The Rehab Code establishes a set of minimum standards for egress and fire protection in its “basic” requirements, which are based on the use group of the building or space. An alteration project cannot make a building less compliant with the basic requirements.

**Reconstruction:** A “reconstruction” project is a combination of repair, renovation, and alteration work that is so extensive that the building – or an entire tenancy – cannot be occupied during the project. Also, the project must be so significant that, upon completion, the building or tenancy needs a new Certificate of Occupancy. The work area must meet the basic requirements, which establish minimum egress, fire safety, ventilation, plumbing, and accessibility requirements. The basic requirements do not extend the work beyond the original work area planned by the building owner. Supplemental requirements, which may apply to a reconstruction project, are an exception to the general rule that the Rehab Code does not extend the applicant’s scope of work. These requirements apply to building systems that are best installed on a floor-by-floor or building-wide basis. Fire suppression systems and fire alarms, which are covered in supplemental requirements, are required only when the area of the reconstruction work is sufficiently large to justify them. One example of a reconstruction project is the “gut rehab” of a row house.

**Change of Use:** A “change of use” involves changing the purpose of – or primary activity in – a building. The Rehab Code applies a measure of the relative hazard associated with the proposed use as compared to the existing use to determine whether the change in the use of a building means that the building must be upgraded. For example, if a building is to be changed from an office to a storage building, the loads associated with the storage may require the upgrading of the structural system. Similarly, if a building is changed from a warehouse (low occupancy) to a theater (higher occupancy), the exitways will need to be changed to accommodate the additional people in the building.

**Addition:** An “addition” is the extension of the area or height of a building. The addition itself must meet code requirements for new construction. The Rehab Code minimizes the amount of work required in the existing portion of the building. It ensures that the addition does not adversely impact the existing portion of the building from a structural, exiting, and fire protection standpoint.

If you have any questions about the categories of work listed above, or if you have questions in general, contact the Code Assistance Unit at (609) 984-7609.

Source: Megan Sullivan  
Code Development Unit

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New Jersey Department of Community Affairs/Division of Codes and Standards

Rehabilitation Subcode (NJAC 5:23-6)

Code Change Proposal

Due: Code changes must be submitted by January 25, 2002

Proposals must be presented with language proposed for deletion in brackets [ ].

Proposals must be presented with language proposed for addition underlined \_\_\_.

Mail code change proposals to:
Code Development Unit
Department of Community Affairs
Division of Codes and Standards
Post Office Box 802
Trenton, New Jersey 08625

FAX code change proposals to:
Code Development Unit
Department of Community Affairs
Division of Codes and Standards
(609) 633-6729 or
(609) 984-7717

Direct questions to the Code Development or Code Assistance Units at (609) 984-7609.

Section (Citation) proposed for change: \_\_\_\_\_

Sections (companion changes) that may also need to be changed: \_\_\_\_\_

NAME: \_\_\_\_\_

ORGANIZATION: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_ FAX: \_\_\_\_\_ E-mail: \_\_\_\_\_

Proposed Code Change:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Supporting Statement (Reason for Code Change):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Department of Community Affairs
Division of Codes and Standards
Rehabilitation Subcode
Code Change Proposal 2002

## Latest Code Adoptions

On June 18, 2001, the Department of Community Affairs adopted, with modifications, the 2000 International Mechanical Code (IMC) and the 2000 International Fuel Gas Code (IFGC) to replace the 1993 edition of the Building Officials and Code Administrators (BOCA) National Mechanical Code. As with all adoptions of new model codes, there is a six-month grace period in which the BOCA code may still be used. If design professionals opt to use BOCA, the permit application must be submitted prior to the end of this six-month grace period.

On July 16, 2001, the Department adopted new model energy codes. The code for residential construction is the 1995 Council of American Building Officials Model Energy Code (CABO MEC) and the code for commercial construction is the 1999 version of ASHRAE 90.1. The operative date for these codes is January 16, 2002. This means that the six-month grace period does not begin until January 16, 2002, which enables the Department to provide training on the codes before they are required.

Finally, on September 17, 2001, the Department adopted the 2000 edition of the National Standard Plumbing Code (NSPC).

For your convenience, the 2000 editions of the IMC, IFGC, and NSPC are available on CD ROM. If you have any questions, you may contact me at (609) 984-7609.

Source: Thomas C. Pitcherello  
Code Assistance Unit

## Turbine Generators

Turbine generators are used in the production of power in electrical generating stations. In accordance with N.J.A.C. 5:23-3.11(a)1, the plan review of these facilities is reserved exclusively for the Department of Community Affairs to perform; the local municipality typically performs the inspections.

Recently, the Department has received several calls regarding fire protection systems installed by the turbine manufacturer within the contained turbine box. According to N.J.A.C. 5:23-9.7(b)1, turbine generators are classified as process equipment. Any equipment or devices attached to the turbine by the turbine manufacturer are also process equipment.

The Department considers these systems part and parcel of the turbine and, by extension, of the process equipment. Even if the extinguishing agent container sits outside the turbine box, the fire protection system installed by the turbine manufacturer is process equipment and, therefore, is not subject to the Uniform Construction Code.

If you have any questions, please contact me at (609) 633-6966.

Source: Robert Hedden  
Bureau of Construction Project Review

## New Jersey Register Adoptions

**Date:** July 16, 2001

**Adoption:** 33 N.J.R. 2471(a)

**Summary:** N.J.A.C. 5:23-3.4 and 3.18: The Department of Community Affairs has adopted, with modifications, new model energy codes. The code for residential construction is the 1995 Council of American Building Officials (CABO) Model Energy Code. The code for commercial construction is the 1999 version of ASHRAE 90.1.

**Date:** September 4, 2001

**Adoption:** 33 N.J.R. 2989(a)

**Summary:** N.J.A.C. 5:23-3A, 5.19B, 5.19C: These adopted amendments provide for the licensure of State inspectors who enforce rules regulating carnival/amusement rides, ski lifts, boilers, pressure vessels, and refrigeration systems.

**Date:** September 17, 2001

**Adoption:** 33 N.J.R. 1245(a)

**Summary:** N.J.A.C. 5:23-3.15: The Department has adopted the 2000 edition of the National Standard Plumbing Code (NSPC).

Source: Megan Sullivan  
Code Development Unit

## Central Sprinkler on the Recall...Again!

On June 19, 2001, the United States Consumer Product Safety Commission (CPSC) and Central Sprinkler Corporation announced the recall of approximately 33 million "wet" sprinklers and 2 million "dry" sprinklers, all with O-ring seals. The wet sprinklers were manufactured from 1989 to 2000 and are installed in piping that is filled with water. The dry sprinklers were manufactured from the mid-1970s to June 2001 and are installed in piping that is not filled with water. Along with Central, Gem and Star Sprinkler Companies have also recalled 167,000 sprinkler heads with the same condition. Wet and dry sprinklers can be found nationwide in a variety of buildings, including houses, apartments, hospitals, day-care facilities, schools, dormitories, nursing homes, supermarkets, parking garages, warehouses, and office buildings.

A similar situation occurred in 1998. Central Sprinkler recalled 8.4 million Omega sprinkler heads. Omegas were cited for failing in at least 20 fires, unlike the new sprinkler recall where only 4 wet and 9 dry sprinklers had failed.

The recall of the O-ring fire sprinklers includes the following models:

**Central "Wet"** — GB, GB-J, GB-1, GB-ALPHA, GB4, GB-QR, GB-QR, GB-2, GB-EC, GB-FR, GB4-EC, GB4-QREC, GB-20, GB-20 QR, GB-LO, LF, GBR, GB-R1, GB-RS, GB-R, ROC, BB1 17/32, BB2 17/32, BB3 17/32, BB1, BB2, BB3, SD1, SD2, SD3, HIP, WS, ELO-LH, ELOC, ESLO, ELO SW-20, ELO SW-24, ESLO-20 GB, ELO-231 GB, ELO-GB, ELO-231 GBQR, ELO-GB QR, LD, K17-231, Ultra K17, ELO-16 GB, GB MULTILEVEL, QB-QR MULTILEVEL, ELO-16 GB FR;

**Central "Dry"** — A-1, H-1, J, K, GB, GB-QR, GB4, GB4-FR, GB4-EC, GB4-QREC, ELO-231 GB, ELO-GB QR, ELO-16 GB, ELO-16 GB FR;

**Gem "Wet"** — F927; and

**Star "Dry"** — ME-1, SG-QR, Q-QR, SG, Q.

Central Sprinkler is offering a voluntary replacement program in which the corporation will provide free parts and labor to replace all defective sprinklers. This replacement program has a very specific protocol to follow. The first step for participating in the replacement program is to determine whether the sprinkler system contains sprinkler heads with O-ring seals. Since it may be hard to visually identify the type of sprinkler heads used, it is helpful to review any sprinkler installations and/or maintenance records to obtain the make, model, and manufacturer date of the sprinkler heads.

A "Proof of Claim" form and a "Waiver, Release of Claims, and Replacement Agreement" form must be completed to receive free replacement sprinkler heads and installation. In addition to the "Proof of Claim" form, two paragraphs describing each sprinkler must be submitted so that Central can help identify the sprinkler heads and confirm that they are part of

the voluntary program. The "Waiver and Release" form will not be accepted without the sprinkler system owner's signature.

The actual replacement of the sprinkler heads will not cost the sprinkler head owner anything. In addition, permits are not required when replacing the sprinklers. N.J.A.C. 5:23-9.3(a)4i clearly states that the replacement of sprinklers falls under the category of ordinary fire protection maintenance and, therefore, does not require a permit. Once all the paperwork is completed and sent to Central Sprinkler, the new sprinkler heads should be on their way.

For more information on how to identify faulty sprinklers or how to participate in the program, call the Notice Packet Request Line at 1-800-871-3492. Information may also be obtained by visiting the program's website at [www.sprinklerreplacement.com](http://www.sprinklerreplacement.com).

For additional assistance, call Central Sprinkler's Customer Service Hotline at 1-800-505-8553.

Source: Rob Austin  
Code Assistance Unit

## Are Sprinkler Problems Interfering with Occupancy?

Every building needs a Certificate of Occupancy (CO), but what if a certain sprinkler recall is hindering individuals from receiving their CO on time? With the recent Central Sprinkler recall, you might find yourself in this situation. In order to avoid setbacks, the Department of Community Affairs recommends that construction officials issue a Temporary Certificate of Occupancy (TCO). The TCO should allow a reasonable amount of time for compliance with the voluntary sprinkler replacement program that Central is offering.

The time by which Central Sprinkler resolves any sprinkler problem is based on where the problem falls on their priority listing. In other words, situations that Central considers to be the most important will be taken care of first. If a sprinkler system is leaking and/or corroding, it will be at the top of the priority list. The age of the system is the second most important factor and the final determinant is the type of occupancy the system protects. If the building is new, the system is new as well and should not be leaking or corroding, leaving the type of occupancy as the deciding factor. If the building is of residential use, or is a place where someone sleeps, it will be among the first to receive a sprinkler replacement.

If you have any questions, please do not hesitate to contact me at (609) 984-7609.

Source: Rob Austin  
Code Assistance Unit



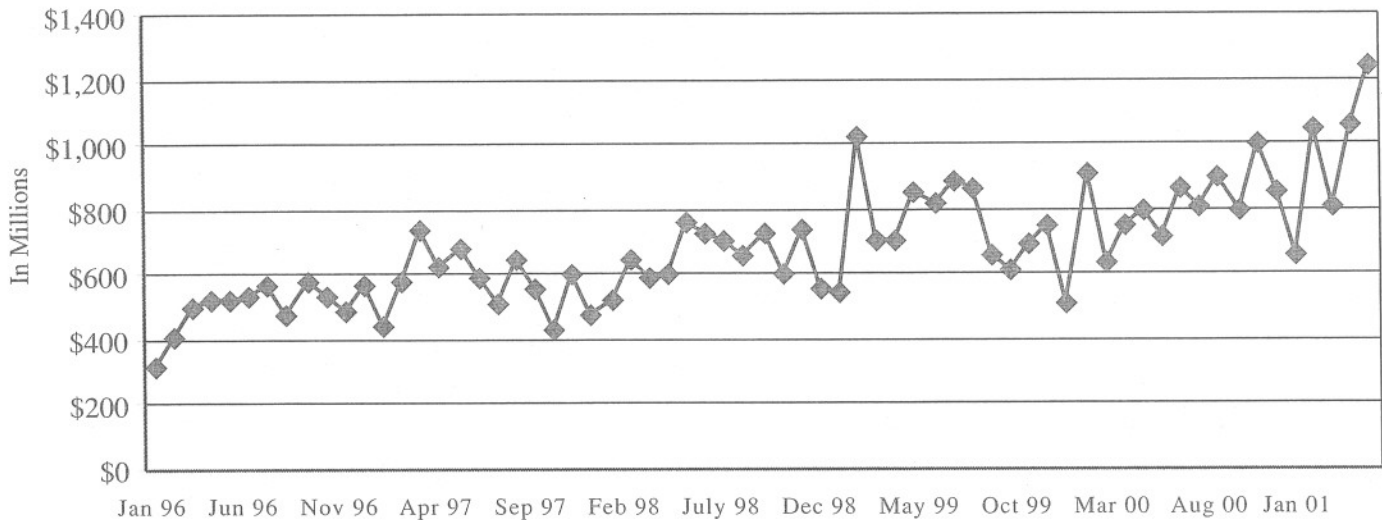
## June 2001 Highlights

The following is from the June 2001 issue of the New Jersey Construction Reporter. The Department of Community Affairs began publishing the *Construction Reporter* in 1995. The publication has construction statistics from building permits issued throughout the State.

At the start of the 1990s, New Jersey's construction economy was in a depressed state. The number of new houses authorized by building permits dropped well below 20,000, to levels not seen since the 1940s. The industry began a steady recovery in the mid-1990s. Each year since 1995, estimated construction costs authorized by building permits grew by about one billion dollars. Authorized houses also grew steadily. Construction activity in May 2001 reached \$1.1 billion. This was an all-time high for a single month since the Department of Community Affairs began collecting and publishing construction data more than five years ago.

June's activity surpassed last month's total by \$178.1 million. The estimated cost of construction authorized by building permits in June was \$1.238 billion; 501 municipalities reported. Residential construction amounted to \$572.6 million (46.3 percent). Office, retail, and other nonresidential structures totaled \$665.1 million (53.7 percent). New housing also was up. New Jersey municipalities issued building permits for 3,339 new housing units in June.

### Estimated Cost of Construction Authorized by Building Permits

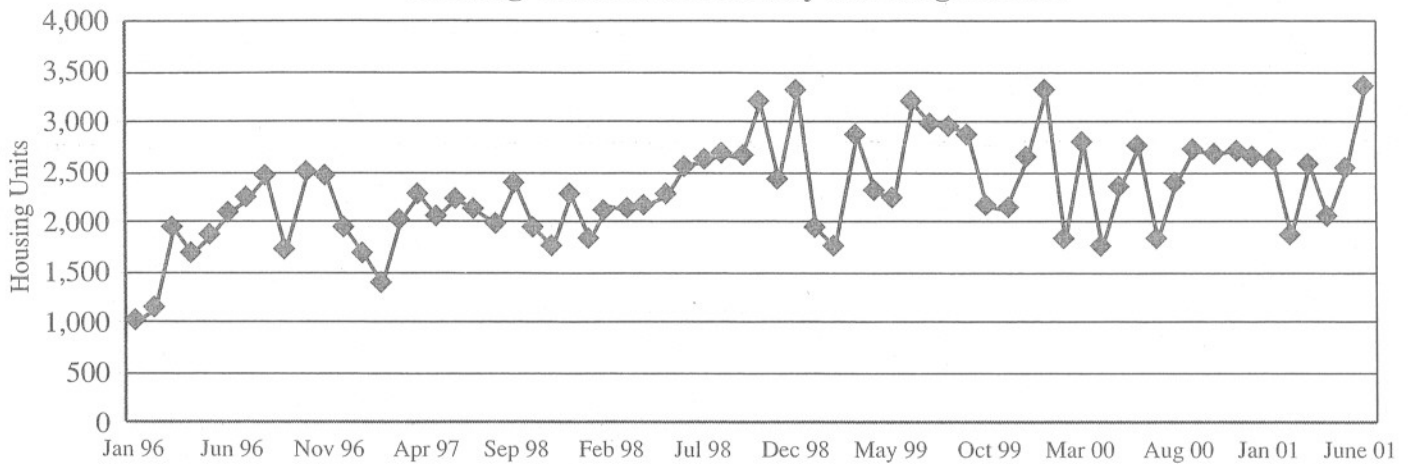


### Boom Time on the Gold Coast

One municipality stands out. Jersey City in Hudson County has seen a housing and office boom unlike that in any other locality. In 1999, New Jersey's second largest city led all municipalities with the most new housing (1,783 units), the most new office space (1.4 million square feet), and the most total construction activity (estimated at \$354.4 million). Just for the month of June, the City reported a level of activity that surpassed records set for the entire year in 1999. The estimated cost of construction authorized by building permits in June was \$412.1 million. Three permits accounted for most of this activity. Work began on a new, 1.5-million-square-foot office building for a large financial investment firm. The estimated cost of construction for the 43-story structure was \$254.6 million. This is the largest building permit reported to the Department of Community Affairs since the agency began publishing construction data in 1995. Two large, multifamily housing complexes also broke ground in June. One of the developments is a high-rise structure (37 stories) with 648 market-rate units and an estimated construction cost of \$69.2 million. The other has 296 market-rate dwellings and an estimated cost of \$68.2 million.

Other localities had big projects in June, but none on the level with Jersey City. The estimated cost of all construction authorized by building permits in Tabernacle Township, Burlington County totaled \$25.2 million of construction. Most of this was for a new, 187,000-square-foot high school (\$23.8 million). East Brunswick Township in Middlesex County had \$16.5 million in construction for residential and commercial (hotel and office) development. There also were several large public works projects that included a sewage treatment plant for a regional sewer authority in Monmouth County, and facility construction by the University of Medicine and Dentistry of New Jersey and Rowan University.

### Housing Units Authorized by Building Permits



#### Mid-Year Review

Major construction indicators are up compared to this time last year. This is due in large measure to the development in Jersey City. Between January and June 2001, the estimated cost of all construction authorized by building permits was \$6.2 billion, about \$1.4 billion more than the first half of the year 2000, an increase of 28.3 percent. Jersey City issued building permits for \$718.9 million of construction, accounting for 11.8 percent of all activity.

Major Construction Indicators, New Jersey: January - June				
Period	Estimated Cost of Construction	Authorized Housing Units	Authorized Office Space (square feet)	Authorized Retail Space (square feet)
January – June '97	\$3,926,007,970	12,824	3,527,402	2,622,495
January – June '98	\$4,121,149,094	15,139	4,780,300	4,128,120
January – June '99	\$4,994,367,961	16,809	5,254,870	3,596,066
January – June '00	\$4,798,965,724	16,849	5,972,159	2,233,888
January – June '01	\$6,157,204,386	16,834	9,771,589	3,244,421
<i>Difference Between 2000 and 2001</i>				
2000-2001	\$1,358,238,662	-15	3,799,430	1,010,533
Percent Change	28.3%	-0.1%	63.6%	45.2%
Source: NJ Department of Community Affairs, 8/8/01				

A little more than ten percent of all the new houses authorized by permits were in Jersey City. Between January and June, New Jersey localities issued building permits for 16,834 new dwellings, which was about the same as last year; 1,739 of these new units were in Jersey City.

New office construction increased by 3.8 million square feet, or 63.6 percent, compared to the first half of the year 2000. About 30 percent of all the new office space was in Jersey City. Retail construction in the first half of 2001 is up by about one million square feet compared to January through June 2000. Mount Olive Township in Morris County led all municipalities with the most new retail space (450,220 square feet).

#### New House Prices

The median sales price of the 5,079 new houses that began enrollment in a new home warranty program in the second quarter of 2001 was \$248,750. This was 2.4 percent more than the median sales price last quarter. Somerset County had the most expensive new houses. Half of the 198 new houses that began enrollment in a new home warranty program in the second quarter of 2001 cost more than \$414,374.

(continued on page 8)

(continued from page 7)

Period	Number of New Houses	Median Sales Price	Percent Change
1996	20,903	\$183,300	-----
1997	21,640	\$190,000	3.7%
1998	23,884	\$209,980	10.5%
1999	24,479	\$224,496	6.9%
2000	25,058	\$231,728	3.2%
First Quarter 2001	4,262	242,900	3.0%
Second Quarter 2001	5,039	248,750	2.4%
Source: NJ Department of Community Affairs, 8/8/01			

For more information about the *Construction Reporter* or to receive a complimentary copy, contact me by telephone at (609) 984-7609. You may also reach me by e-mail at [jlago@dca.state.nj.us](mailto:jlago@dca.state.nj.us).

Source: John Lago  
Office of Planning and Program Development

## REPRINT: Ten Things Every Construction Official Should Know About New Home Warranties

*The following originally appeared in the fall edition of the 1996 Construction Code Communicator, Volume 8, Number 1.*

1. When a builder's registration expires, the builder is not put on the suspended or revoked list. Consequently, you must check a builder's registration card in addition to the revoked and suspended lists to be sure that the builder is in a position to pull permits and apply for Certificates of Occupancy.
2. Once every five years, a property owner may build a house for his or her own use or occupancy. This does not mean that a builder can sell a house every five years without a warranty. Only the property owner can sign the Certification in Lieu of Oath.
3. The builder who transfers title is the builder who should provide the warranty. The implication is that the builder who is transferring title is the builder who should pull the permits.
4. Builders who use modular homes must provide a new home warranty. The factory warranty does not qualify as a new home warranty. Owners of lots (with intent to occupy) who contract with the factory directly do not receive a new home warranty (see #5).
5. An owner who will occupy a unit, and who is responsible under a separate agreement for any of the basic systems of the structure, is acting as his own general contractor and may not receive a warranty.

6. Warranty forms are not valid unless they have been stamped with a warranty number and date, or have been otherwise endorsed as indicated on the form. Each of the approved warranty plans has a distinct form or forms indicating a valid enrollment. If the form says "not valid unless signed," be sure there is a signature. The State New Home Warranty Program's Certificate of Participation must be stamped with a number and date in the lower right-hand corner.

7. Warranties are not applicable to renovations, which include the construction of an otherwise new home on an existing foundation or part of an existing foundation.

8. A builder may not build under someone else's registration.

9. If there will not be a warranty, your file should include one of the following 1) the certification in Lieu of Oath of an owner building for his or her own use or occupancy, 2) an affidavit by the owner of the lot that the home was constructed for lease purposes only, 3) a letter from the New Home Warranty Program granting an exception, 4) a notation on the permit(s) that the new home incorporates portions of an existing foundation or other structural element, or 5) an indication that the home was built in accordance with the U.S. Department of Housing and Urban Development (HUD) requirements rather than those of the Uniform Construction Code (UCC).

10. If you have questions, please contact the New Home Warranty Program at (609) 984-7905.

Source: Peter Desch  
Bureau Chief, Bureau of Homeowner Protection

## Workplace Hazards

In an effort to be proactive in preventing workplace injury, illness, and death, the Occupational Safety and Health Administration (OSHA) is focusing on the leading causes of construction worker injury and death in New Jersey. The following is a list of some of the conditions that might contribute to construction worker injury and death:

1. Scaffolds or other structures greater than 6 feet high without fall protection such as guardrails, nets, or other personal fall arrest systems with harness and lifelines;
2. Trenches or excavations for sanitary sewer work and commercial construction deeper than 5 feet without some means of protection from cave-ins; and
3. Working within 10 feet of high voltage power lines when operating cranes operators or trimming trees.

In addition, in an effort to combat occupationally related lung disease in New Jersey, OSHA is embarking on a strategic initiative aimed at reducing worker exposure to crystalline silica, which normally occurs during roadwork. OSHA recognizes that, as code officials, you do not have jurisdiction over the construction of roads. However, we are requesting that if you or any of your staff observe some of the following activities, you inform us so that we can reduce the occurrences of this problem. Crystalline silica overexposure might occur when the following tasks are performed:

- Chipping, hammering, drilling of rock
- Abrasive blasting using silica sand as the abrasive
- Abrasive blasting of concrete
- Sawing, cutting, hammering, drilling, grinding, or chipping of concrete masonry
- Demolition of concrete and masonry structures
- Dry sweeping or use of pressurized air to blow concrete dust

When crystalline silica is inhaled, lung tissues react by developing fibroid nodules and scarring around the trapped silica particles causing a condition called silicosis. This condition, which is similar to emphysema in its symptoms, causes severe breathing difficulties. This disease is progressive and often fatal. Respirable crystalline silica is also a known human lung carcinogen.

Over the years, OSHA has had problems catching up with employers performing these tasks. Although code officials are not responsible for enforcing OSHA rules and regulations, we believe that you are likely to know of projects in your towns and you may observe improper work practices. If you see an improper work condition that OSHA should know about, please contact us at the telephone numbers provided below. OSHA is also interested in being notified of any other known causes of workplace fatalities, catastrophes, or serious injuries.

Some examples of helpful information include: name of employer, exact location, task being performed, and approximate number of exposed individuals.

Should you observe any of these workplace hazards, or if you have any others to report, please contact the Avenel OSHA office at (732) 750-3270. For nights, weekends, or toll free calls during the day, please call 1 (800) 321-6742. Your interest in occupational safety and health is appreciated.

Source: Robert D. Kulick, Area Director  
Occupational Safety and Health Administration

## Elevated Fees

The other day, a respected colleague called to ask if the price of kitchen cabinets is included in permit fees. My response was, "Have you forgotten about Bulletin No. 94-3?" My colleague replied that he had not forgotten about the bulletin, but that he had included the cost because "every other town had made him include the cost." The purpose of this article is to alert readers to STOP including that cost in the permit fees.

Bulletin No. 94-3 is still active. It clearly states that as part of the renovation of an existing kitchen, the installation of kitchen cabinets, plumbing fixtures, and kitchen appliances does not require permits. Therefore, their costs should not be included in the permit documentation.

Source: John Terry  
Code Assistance Unit

## Recall of Andersen Windows

For your information, Andersen Corporation, in cooperation with the US Consumer Product Safety Commission (CSPC), is recalling tilt latches in about 400,000 windows sold between May 2001 and August 2001. This recall involves only the tilt latches on the lower sash of the Andersen 200 Series Tilt-Wash Double-Hung window.

As code officials you are not responsible for enforcement, however, as a service to the builders and residents/homeowners in your community, you may wish to alert them of this recall.

Concerned residents may obtain information by contacting the Andersen Window Care Solution Center toll-free at 1 (888) 888-7020 between the hours of 7 a.m.-7 p.m. Central Time (CT) Monday through Friday or 8 a.m.-4 p.m. CT Saturdays, or by logging on to Andersen's website at [www.andersenwindows.com](http://www.andersenwindows.com).

Source: Megan K. Sullivan  
Code Development



## “Rules to Live By” or “Don’t Make these Mistakes”

Each year, the Department of Community Affairs receives information on over 300,000 building permits that are important sources of information on development and settlement patterns in New Jersey. They tell us what is being built and where it is being built. They provide indicators on the vitality of a key component of New Jersey’s economy, the construction industry, and are one of the few sources of information available from every municipality every month.

If you are the construction official or technical assistant responsible for entering this important data, thank you. The job you are doing is important and useful to many people. You are part of the largest, most comprehensive inventory of construction data in the state.

Every large database has data-entry errors. What follows is a list of mistakes made by more than a few localities and rules of thumb to avoid them. You may want keep this list by the computer used to enter construction data.

**1. Don’t confuse square feet with cubic feet.** The permit applicant must provide information on the square feet and cubic feet of the new structure or addition. Too many times, these two are confused. This mistake significantly distorts the statistics we get and the building fees you collect. **Rule of thumb:** *Square feet (floor area) can never be more than cubic feet (volume).*

**2. Don’t confuse buildings with dwellings.** Sometimes a construction official or technical assistant tells us a new house was created when they really mean a new structure was built. For example, a town will issue a new construction permit for a nonresidential building, say a store, and will indicate that there is one new dwelling. This is true only if a house (for-sale unit) or apartment (for-rent unit) is part of the store. Too many confuse buildings with dwellings. We already know that a new building is going up. What we want to know is if the structure has any houses or apartments. **Rule of thumb:** *Most nonresidential uses do not have dwellings. There are some rare exceptions. See item # 3.*

**3. An assisted living facility is a nonresidential use group (I-2) with dwellings.** As our population ages, assisted living is becoming a more common and important housing option. Compared to skilled nursing homes, assisted living facilities provide quarters that allow for more independent living. These units may have small kitchens or microwaves. They look more like apartments than nursing homes and should be counted as dwellings. Oftentimes, an assisted living complex has a wing for nursing home or hospital beds. We only want to know the number of assisted living units. So, a complex with 30 beds for skilled nursing care and 70 assisted living apartments has a total of 70 “for-rent” units. Don’t count the nursing home beds as units. **Rules of thumb:** *If the unit is designed for independent living, if each unit has a small kitchen or microwave, and looks like an apartment, count it as a dwelling.*

**4. Don’t issue permit updates that double count.** Permit updates usually occur for large projects built over several months, even years. If the construction official knows the complete cost and size of a project at the outset, then by all means let us know with the initial permit. Sometimes this information is not known up front. A permit will be issued for footings and foundations, and the official only has the cost estimate for that phase of the development. Enter what you know. If the computer software requires square or cubic feet and you do not have the information at this time, enter a “one” and follow up with a permit update when the details become available. But, do not double count. For example, a permit for a large project, like an elementary school is issued. The permit indicates the structure will be 100,000 square feet, 1.7 million cubic feet, and have an estimated cost of \$8.5 million. A permit update for additional work follows that repeats this information. It looks as if the applicant doubled the size and cost of the school. **Rule of thumb:** *Updates should include only the information that was not included in the initial permit. Enter as much information as possible with the initial permit and follow up with updates, adding new data that does not repeat earlier submissions.*

**5. Count the zeros.** One of the few times a \$100000 house looks like a \$1000000 house is when the computer software used to track permits does not have punctuation. We realize the screen displays on many computers are hard to read. The next generation of software the Department distributes will have better displays. All numbers will be fully formatted. There will be drop-down boxes to reduce data-entry errors. Until then, check your work, especially the figures for estimated construction costs. **Rule of thumb:** *Use whole numbers (no decimals) and count the zeros.*

**6. Pay attention to demolition permits that result in the loss of a house or apartment.** Several construction officials and technical assistants confuse the demolition of a building with the demolition of a dwelling. When we look at demolition permits, we especially want to know if any houses or apartments were lost and, if so, how many. Many officials issue permits for demolition of nonresidential structures — say a store, office, or warehouse — and then misinterpret the data-entry fields “for-sale unit loss” and “for-rent unit loss” as referring to buildings. They do not. They refer to dwellings. We already know a building was razed simply by the issuance of the permit. What we want to know is whether the demolished building had dwellings. Sometimes this problem occurs because of

incorrect Census item numbers. As an example, a permit will be issued for the removal of an oil tank in a house and the construction official or control person will enter Census item "645," which is for the demolition of a single-family house. The computer software sees this item number and logically queries for the number of dwellings lost, and won't let the user move to the next screen until a number is entered. Removal of an oil tank is not the same as the demolition of a house. Think of the tank as a nonresidential or accessory structure. Use item number "649" or "999." **Rule of thumb:** *Pay particular attention to demolitions that result in the loss of a dwelling. If you issue a permit to demolish a nonresidential structure and indicate that a house or apartment was lost, expect a follow-up call from us to verify that there was indeed a house or an apartment lost.*

**7. Let us know when you need to revise or correct a building permit that was already transmitted.** With over 300,000 records in the Statewide construction database, mistakes will occur. If you discover an error with a particular permit before it is transmitted, correct it. There is no need to call. Keep in mind, however, that once a permit is sent to the Department, a firewall exists that prevents any corrections by you to the Statewide database. Any revisions to previously transmitted data must be made by us. **Rule of thumb:** *When necessary, call us with the permit number and the correction, and we will revise the central, Statewide construction database.*

**8. Submit monthly building permit and certificate reports.** We expect to hear from all localities every month. There are many reasons why a town does not report. One reason common among smaller communities is that there is no activity. We still need to hear from you so we can distinguish a "no-activity" town from a "delinquent" town. Technical problems may be another reason for no reports. Over 400 municipalities transmit construction data over telephone lines. Snafus happen. If you cannot submit the monthly reports, let us know. We may be able to arrange a stopgap measure. **Rule of thumb:** *Submit every month, even if to report no activity. If your town appears on our delinquency list, expect a call or letter.*

**9. Call with questions and comments.** If you have questions about how a permit should be entered, don't hesitate to call. Also, please call if you need a report from the Statewide construction data. Many construction officials use building permits in pretty sophisticated ways. They combine this information with tax assessment data and planning and zoning decisions. Some have started to use commercially available software to map construction activity. If you have a software or data application to share or suggestions to improve how building permits are tracked and recorded, let us know with either a letter, phone call, or e-mail.

If you have any questions, please do not hesitate to call. I may be reached at (609) 984-7609.

Source: John Lago  
Office of Planning and Program Development

## Sizing of Gas Piping

As a result of the adoption of the 2000 International Fuel Gas Code (IFGC), the Department of Community Affairs is updating the gas pipe sizing tables referenced in Bulletin 94-1.

In accordance with the 2000 IFGC, the tables that should be used for gas pipe-sizing when the utility supplier provides gas with a specific gravity of 0.6, a system pressure 0.5 PSIG or less, and a pressure drop of 0.3 inches of water column are Tables 402.3(1) and 402.3(5). When natural gas is delivered under conditions other than those described above, the appropriate gas pipe-sizing table should be used.

Tables 402.3(1) and 402.3(5) should be used for iron pipes and schedule 40 standard pipes. The 2000 IFGC also has sizing tables for semi-rigid tubing, corrugated stainless steel tubing (CSST), and Liquefied Petroleum Gas (LP Gas). The appropriate sizing table must be used for the piping material being installed.

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

Source: Thomas C. Pitcherello  
Code Assistance Unit

## Counter Documents

The Department of Community Affairs is forming a working group to review existing counter documents and to make recommendations on how to share useful ones statewide. Counter documents are those information sheets available at the counters of local construction code enforcement offices that help explain code requirements and administrative procedures to permit applicants.

The Department has been collecting sample documents covering a variety of subjects such as career development in the field of building code administration; permit information for decks, porches, and roofs; and facts on fire sprinklers.

Any code official with counter documents that could be included in this review should send them to Mary Ellen Handelman, Division of Codes and Standards, Department of Community Affairs, Post Office Box 802, Trenton, New Jersey 08625.

If you have questions about this project, I may be reached at (609) 984-7609.

Source: Kristy Paolillo  
Code Development

# Construction Code Communicator



State of New Jersey

James E. McGreevey, Governor

Department of Community Affairs

Susan Bass Levin, Commissioner

Volume 13 Number 4

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## Availability of 2000 IMC, IFGC, and NSPC

### CD-ROMs

In the Fall 2001 edition of the *Construction Code Communicator*, the article entitled "Latest Code Adoptions" generated many telephone requests to the Department of Community Affairs for copies of the 2000 editions of the International Mechanical Code (IMC), the International Fuel Gas Code (IFGC), and the National Standard Plumbing Code (NSPC) on CD-ROM.

The article apparently created the impression that these CD-ROMs were available through the Department; however, we do not supply them. The 2000 IMC and IFGC are available for purchase from Building Officials and Code Administrators (BOCA) International, Inc. at 1-800-214-4321. The 2000 NSPC may be obtained from New Jersey Plumbing, Heating, and Cooling Contractors (NJ-PHCC) at (609) 499-8070.

I apologize for the confusion. Should you have any questions, you may contact me at (609) 984-7609.

Source: Thomas C. Pitcherello  
Code Assistance Unit

## Permit Requirements







The Office of Regulatory Affairs has discovered an increasing number of construction code officials who are allowing work to commence without first issuing the appropriate permits. Some officials are issuing footing and foundation letters, while others are simply allowing work to proceed as long as payment has been received and all subcode officials have signed off on their respective portions of the permit.



Both scenarios are absolutely inappropriate. Except for minor work and emergency repairs, permission to work, which is what a permit is, can only occur when you have issued Form F180, which is the legal document signifying that the applicant has successfully completed all aspects of the application process.

Please remember that it is unlawful on your part to allow work to commence without first issuing a partial or full permit for any work that requires a permit. This is a fundamental rule contained within the Uniform Construction Code.

Source: Louis J. Mraw  
Supervisor  
Office of Regulatory Affairs

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## Accessibility and Sales Offices

The Department of Community Affairs has received several requests for clarification on the accessibility requirements for sales offices at developments of single-family homes.

**Accessible route:** The office is required to be accessible to all customers; therefore, there must be an accessible route into the office. When the office is in an on-site trailer, this is usually accomplished by a ramp. When the office is in the garage of the on-site model home, the entrance to the office is at grade and is accessible. The model home itself is not required to have an accessible route into and through the dwelling, and the toilet facilities in this single-family home are (of course) exempt from the Barrier-Free Subcode.

**Accessible toilet room:** When toilet facilities are available to customers, an accessible toilet room must be provided. When the sales office is in the garage of the model home, this may be accomplished by providing an accessible porta-john on an accessible route (stable, firm, and slip-resistant) adjacent to the office. When toilet facilities are not available to customers, but are available only for employees, an accessible toilet must be provided (in compliance with the Americans with Disabilities Act, Title I) as an accommodation to an employee.

If you have further questions on this issue, please contact the Code Assistance Unit at (609) 984-7609.

Source: Emily Templeton  
Code Development Unit

## Reminder: Building Safety Week 2002

The 21<sup>st</sup> Annual Building Safety Conference will be held Wednesday, May 1 through Friday, May 3, 2002 at Bally's Park Place in Atlantic City. Look for your registration brochure toward the end of February.

We are encouraging all code enforcement personnel and other interested parties to participate in this worthwhile event. Please mark these dates on your calendars.

If you have any questions, contact the Education Unit in the Bureau of Code Services at (609) 984-7820.

Source: Megan K. Sullivan  
Code Development Unit

## Bulkheads, Piers, and the UCC

There have been a number of inquiries on whether a permit is needed for a bulkhead or pier. No technical standards are adopted under the Uniform Construction Code (UCC) for bulkheads and piers; therefore, UCC permits are not required. Neither the Building Officials and Code Administrators (BOCA) National Building Code/1996 nor the One- and Two-Family Dwelling Code/1995 provides criteria for these designs.

There are exceptions to this rule:

1. If the bulkhead or pier is used to support a building or structure, then a permit is required, as the bulkhead or pier becomes part of the building foundation.
2. If the bulkhead is used as a retaining wall that is part of the means of egress, a permit is required. See Bulletin No. 88-6.

The responsibility for the review and inspection of the design and construction of bulkheads and piers is with the town engineer. UCC forms should not be used for this purpose.

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

Source: Marcel Iglesias  
Code Assistance Unit

## IBC/IRC Update

For everyone out there who is a bit curious about the adoption of the International Building Code (IBC) and the International Residential Code (IRC), here's the deal!

The 2000 IBC and IRC have been completely and thoroughly reviewed by the International Code Council (ICC) Advisory Committee, which was formed by the Department of Community Affairs to review these codes in depth. The ICC Advisory Committee divided into working groups to address such critical issues as residential affordability, fire safety issues, changes in use group definitions, structural design issues, and special inspections.

The ICC Advisory Committee's recommended changes were referred to the Code Advisory Board (CAB) at a joint meeting on December 14, 2001. The recommendations and draft rule were then sent to the



Building, Fire Protection, Elevator Safety, and Plumbing Subcode Committees of the CAB. Their review is expected to take several months.

With their input, a proposal for adoption should be made in the *New Jersey Register* in late spring or early summer. The IBC and IRC should be officially adopted with technical amendments by the end of 2002.

Because there is a significant number of changes, the Department is planning to contract for a New Jersey publication of the IBC and the IRC with all the amendments included. So before you go out and buy all of these code books, wait to see when a NJ publication will occur!

If you have any questions, please contact the Code Assistance Unit at (609) 984-7609.

Source: Rob Austin  
Code Assistance Unit

### ***New Jersey Register Adoptions***

**Bulletin No. 01-3:** This bulletin is a companion to the rule on training fees in which the Department of Community Affairs exempts projects involving affordable housing from Departmental fees, including the training fee. This bulletin provides the Department's definition of "affordable housing."

**Date:** October 1, 2001  
**Adoption:** 33 *N.J.R.* 3430(a)  
**Summary:** *N.J.A.C.* 5:23-2.23, 4.18, and 4.20: These adopted amendments require the issuance of a Temporary Certificate of Occupancy for a building or portion of a building when the work covered by a permit is substantially completed and the building or portion of the building may be occupied without endangering health or safety.

**Date:** October 15, 2001  
**Adoption:** 33 *N.J.R.* 3673(b)  
**Summary:** *N.J.A.C.* 5:23-3.14: These adopted amendments change the existing requirements for ornamental guardrails by deleting the reference to a "ladder effect."

**Date:** October 15, 2001  
**Adoption:** 33 *N.J.R.* 3674(a)  
**Summary:** *N.J.A.C.* 5:23-3.14 and 3.21: These adopted amendments provide the definition of "habitable attic" from the 1990 edition of the Building Officials and Code Administrators (BOCA) National Building Code. In addition, the adopted amendments delete any remaining citations for Chapter 11 of the Building Subcode in their entirety.

Source: Megan K. Sullivan  
Code Development Unit

### **How Do I Reach Experior?**

I have recently received several complaints from code officials who are attempting to register for exams that are offered through Experior Assessments, Inc. When I have called Experior to see whether the problem is replicated, I have had no problems. It has occurred to me that perhaps there is an obsolete telephone number being circulated.

Approximately six months ago, in an effort to improve customer service, Experior consolidated all test development and administration of the National Certification Program for Construction Code Inspectors (NCPCCI) in its central office in St. Paul, Minnesota. The phone number to reach Experior is 1-800-864-5309.

In order to address any future difficulties you may encounter when contacting Experior, please ask for the name of the person to which you are speaking. This will allow us to track the problem more efficiently. I hope this will help all of you receive faster, higher quality service from Experior.

Source: Emily Templeton  
Code Development

### **Installation of Arc Fault Circuit Interrupters**

This article serves as a reminder that Section 210-12(b) of the National Electrical Code (NEC) 1999 was amended at *N.J.A.C.* 5:23-3.16 to delete the words "become effective January 1, 2002" at the end of the section and to substitute the words "be considered optional." Therefore, the installation of arc fault circuit interrupters (AFCI) in dwelling unit bedroom branch circuits that supply 125-volt, single-phase, 15- and 20-ampere receptacle outlets cannot be required by the electrical subcode official, and the decision to have these devices installed remains the "option" of the owner/designer.

However, if AFCIs are installed, they must be in accordance with their listing and labeling requirements. A recent Underwriters Laboratories listing indicates that manufacturers have had their products listed.

The Department of Community Affairs invites you to advise us how often this option is being selected to enable us to review the optional feature appropriately. Comments may be sent to me by e-mail at [amehta@dca.state.nj.us](mailto:amehta@dca.state.nj.us); by fax at (609) 984-7717; or by mail at the New Jersey Department of Community Affairs, Division of Codes and Standards, Post Office Box 802, Trenton, NJ 08625.

If you have any questions, you may reach me by telephone at (609) 984-7609.

Source: Ashok Mehta  
Code Assistance Unit

## Census Item Numbers

As construction officials and technical assistants, you are responsible to report each month to the New Jersey Department of Community Affairs on the construction activity in your locality. Many of you also may be aware of a similar obligation you have to submit this information to the U.S. Bureau of the Census. For most of you, these requirements occur behind the scenes and are met by the computer software used to record and keep track of building permits and certificates. Some of you may not know that, in recent years, the U.S. Census Bureau changed its reporting requirements.

In the 1980s, the Census Bureau wanted to know a lot more about construction than it does now. Back then, the Census Bureau was interested in building permits for new houses. They also wanted to know about residential alterations and additions. Nonresidential construction (new buildings, along with rehab work) was also recorded, as well as the number of dwellings demolished. Construction officials and technical assistants had to refer to a long and complicated list of "census item numbers" when they filled out the Census Bureau's C-404 form.

Good news, bad news. Bad news first: The Census item numbers classified construction activity in a way that was clumsy and nonintuitive to many construction officials and technical assistants. There were two problems. First, the Census Bureau used numbers, not words; and second, there were too many numbers. Most construction officials and technical assistants got the hang of the commonly used numbers. Almost everyone knew a 101 was a new, single-family house. A few learned this too well and used it incorrectly whenever they issued a new construction permit for an office, store, or a new building of any type. The Census Bureau no longer uses item number 102. Old-timers might remember this referred to a new, single-family house that was attached to at least one other, a row house or town house. A 103 is a duplex, and a 104 is a residential building that had three or four dwellings. A 105 is a building with five or more dwellings. The old C-404 forms used to have separate item numbers for nonresidential structures and asked about demolitions, as well as alterations and additions to both residential and nonresidential buildings.

The good news is that you can forget about most Census item numbers. As far as the Census Bureau is concerned, they only want to know about new houses or apartments. The Census Bureau no longer tracks demolitions and is no longer interested in most nonresidential buildings. The exception is assisted-living facilities (I-2 use group). Both the Census Bureau and the Department recognize these buildings as places where people live. The number of dwelling units in the assisted-living facilities should be counted and recorded on the building permit. Keep in mind that, if the assisted-living facility also has a wing for nursing home or hospital beds, only the assisted-living units should be counted as dwellings and that the nursing home/hospital beds are NOT counted as dwellings. In most instances, the appropriate Census item number for assisted-living facilities will be 105.

Don't misunderstand. Although the Census Bureau no longer cares about demolitions and most nonresidential construction, we at the Department still do. You should continue to record this information. It's just that construction officials and technical assistants can erase from their memory banks most of the old Census item numbers. The only item numbers you have to remember and keep close by your computer if you use construction reporting software are: 101, 103, 104, and 105. Everything else is a 999 or an "off item," as far as the Census Bureau is concerned.

Better news still. In the next version of reporting software that the Department is working on, construction officials and technical assistants won't even have to remember any item numbers. In programmer's jargon, the item numbers will become an "automatically populated field." If you issue a building permit for a residential building, say a single-family house, specify the use group as either R-3 or R-4, indicate that the permit type is new construction, and say that one house will be built, then a "101" will automatically be inserted by the software as the appropriate item number. This will tell the Census Bureau what it needs to know and make your life easier.

In the meantime, keep in mind that the only numbers you really need to know are shown on the table at the top of the next page. If you have questions about the C-404 form, you can call the Census Bureau directly at its toll-free number: 1-800-845-8244. You may also call me with questions at (609) 984-7609, or e-mail [jlago@dca.state.nj.us](mailto:jlago@dca.state.nj.us).

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IF	AND	AND	THEN
Use Group	Permit Type Is	Number of Dwellings Is	Census Item Number Is
R-3	New	1	101
R-4	New	1	101
R-3	New	2 (duplex)	103
R-4	New	2 (duplex)	103
R-2	New	3 or 4	104
R-2	New	5 or more units	105
I-2 (assisted living)	New	5 or more units	105*
All Other Use Groups	New, Addition, Alteration, or Demolition	Does Not Matter	999 (off item to the Census Bureau)

\*Note: If the assisted-living facility has both nursing home beds and apartments, count only the apartments as dwelling units.

Source: John Lago  
Office of Planning and Program Development

### Review of Load Management Device and Area Lighting Facility Installation Programs

As an electrical subcode official, you may be aware of the agreements made several years ago between the Department of Community Affairs and several electric utility companies to conduct limited inspections of load management devices and area lighting facility installation programs on private properties. The specific procedures for permit and inspection of these programs are set forth in N.J.A.C. 5:23-2.18A (Load Management) and 2.18B (Area Lighting).

The Department has not received many complaints or suspected violation reports from electrical subcode officials about the site lighting installation program by the utilities, but we would like to have some feedback from electrical subcode officials on the load management device and site lighting installation programs. The Department plans to undertake a review of these programs and it is possible that they may undergo changes. As a result, the Department invites you to let me know of any way in which these programs could be made more effective and efficient in furtherance of public health and safety.

Please send your comments to me by mail at the Division of Codes and Standards, New Jersey Department of Community Affairs, Post Office Box 802, Trenton, New Jersey 08625; by fax at (609) 984-7717; or by e-mail at [\[redacted\]](#)

Source: Ashok Mehta  
Code Assistance Unit

### Local Enforcing Agency Staffing Problems

I recently responded to a letter from Mr. Thomas Millar, Construction Official for West Windsor Township and immediate Past President of the Building Officials Association of New Jersey (BOANJ), concerning problems construction officials experience in meeting the Uniform Construction Code (UCC)-required time frames for permit issuance and inspections due to staffing problems. Because this issue affects many offices, I thought my response would be helpful to all code enforcement offices.

*Thank you for your recent letter concerning the problems some of the members of the Central Chapter of the BOANJ are experiencing complying with the 20-day time frame to issue a permit, as well as the three-business-day inspection time frame contained in Subchapter 2 of the Uniform Construction Code. You state in this letter that officials are questioning whether they can suspend the issuance of new permits until any backlogs are addressed, or until the municipality hires additional staff.*

*It is my opinion that the language contained within the Uniform Construction Code does not support a moratorium on permit issuance. I realize that this statement puts the licensed official in a "Catch 22" position whereby he or she does not have adequate time to comply with the time frames mentioned above or perform competent plan reviews and inspections. However, it is also my opinion that, when an official is failing to comply with the above-mentioned time frame and it has been established through the Office of Regulatory Affairs that a substantial staffing deficiency exists, the failure to comply is a violation that*

## Highlights of the Adoption of the 2000 IMC and IFGC

This article is to serve as a reminder that the 2000 International Mechanical Code (IMC) and the International Fuel Gas Code (IFGC) took effect on December 16, 2001. As with all adoptions of model codes, there is a six-month grace period during which the existing codes may still be used. That grace period is now over. Any submissions must be in conformance with the 2000 IMC, and/or applications and permits for IFGC codes.

The following are some of the new items that the new IMC and IFGC require:

### IMC/2000

1. Section 403.3, "Ventilation Rate," Table 403.3, "Required Outdoor Ventilation Air," must be used for outside air requirements. The American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) 62 standard is no longer a referenced standard as it was in the Uniform Construction Code (UCC) amendments to the 1993 Building Officials and Code Administrators (BOCA) National Mechanical Code.
2. Section 502, "Required Systems," lists many types of buildings and areas of buildings that require exhaust systems that were not covered in the previous mechanical code.
3. Section 510.2, "Hazardous Exhaust Systems," describes three conditions which, if provided, require a hazardous exhaust system.
4. Section 513, "Smoke Control Systems," is an entirely new section that includes complete detailed requirements of the types of systems required. The 1993 BOCA National Mechanical Code referred to the building code.
5. Section 801.19, "Multistory Prohibited," prohibits the use of common venting systems for appliances that are located on more than one floor level, except when all of the appliances are located in rooms or spaces that are accessed only from the outdoors. In this case, the appliance enclosures shall not communicate with the occupied areas of the building. This requirement is also located in the IFGC under Section 503.10.1.
6. Section 1007.1, "Boiler Low-Water Cutoff," requires that ALL steam and hot-water boilers be protected with a low-water cutoff control. This control is now a mandatory item on all boilers, both residential and commercial.
7. In addition, the requirements for new equipment and systems are included with the adoption of the latest IMC/2000.

### IFGC/2000

1. Sizing tables for corrugated stainless-steel tubing (CSST) gas piping systems are included in this code. Be aware that the sizes for the pipes are in Equivalent Hydraulic Diameter (EHD). One EHD is equal to approximately 1/32 of an inch. Each manufacturer has its own installation manual containing sizing recommendations. It is recommended that the manufacturer's sizing be used to ensure proper pipe size.
2. Section 404.8, "Protection Against Corrosion," states "zinc coatings (galvanizing) shall not be deemed adequate protection for gas piping underground." In addition, Section 404.8.2, "Protective Coatings and Wrappings," states "pipe protective coatings and wrappings shall be approved for the application, and shall be factory applied."
3. Section 404.9, "Minimum Burial Depth," states "underground piping systems shall be installed at a minimum depth of 12 inches below grade" except for individual outlets, which remain 8 inches below grade. This is a change from the 1993 BOCA Mechanical Code, which required 18 inches minimum.
4. Section 411.1.2, "Appliance Fuel Connectors," states "connectors shall have an overall length not to exceed 3 feet, except for range and domestic clothes dryer connectors, which shall not exceed 6 feet in length."

These are just a few changes contained in the new 2000 IMC and IFGC. You should review each subcode for other new code requirements. In addition, please remember that, as always, there are also UCC changes that were made to each of these adopted subcodes.

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

Source: Thomas C. Pitcherello  
Code Assistance Unit



(continued from page 5)

can only be attributed to the municipality's failure to adhere to N.J.A.C. 5:23-4.4(d), which states:

(d) The municipality shall ensure that the enforcing agency has adequate staff to review plans, applications, specifications, and to schedule and perform inspections in a timely manner.

With that in mind, I can assure you that the Office of Regulatory Affairs will not take action against an official who cannot meet the mandatory time frames contained within the Uniform Construction Code due to the failure of a municipality to provide adequate staffing as evidenced by a Regulatory Affairs' staffing analysis.

It is important for every official to understand that your primary responsibility is to ensure all buildings are constructed and occupied safely. Accordingly, when understaffing forces a construction official to make priority choices, prompt, full, and thorough inspection of projects already permitted should take precedence over plan reviews and additional permits. Municipalities are required to provide adequate numbers of qualified staff to meet the demand of the public. Please do not sacrifice quality for quantity.

Source: Louis J. Mraw  
Supervisor  
Office of Regulatory Affairs

### New Construction on Existing Foundations

It has been brought to the Department of Community Affairs' attention that the article entitled "When is a Demolition Permit Required?" which appeared in the Fall 2001 edition of the *Construction Code Communicator*, might cause some confusion in the field. Specifically, the article stated that, when a building or structure is going to be demolished and the foundation left in place, "any portion of the new structure built on the existing foundation is treated as new construction."

Does this mean that the building is new construction for the purposes of a new home warranty? The answer is no.

There are two laws that apply in this circumstance. First, the parameters for determining when a permit is required for demolition are set through the Uniform Construction Code (UCC) Act. Under the UCC Act, anything new built on an existing foundation is considered new construction for the purposes of code requirements.

Second, the parameters for issuing a new home warranty are set in the New Home Warranty Act. Under this Act, a building constructed on an existing foundation is specifically **not** considered to be a new home eligible for a new home warranty.

If you have any UCC-related questions, please contact the Code Assistance Unit at (609) 984-7609. If you have any questions regarding new home warranties, please contact the Bureau of Homeowner Protection at (609) 984-7905.

Source: Megan K. Sullivan  
Code Development Unit

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### Public Access to Plans

Recently, William Connolly, Director of the Division of Codes and Standards, sent the following memorandum to all New Jersey construction officials. The memorandum is reprinted here to provide this information to all readers of the *Construction Code Communicator*.

#### MEMORANDUM

TO: Construction Officials  
FROM: William M. Connolly  
Director  
Division of Codes and Standards  
SUBJECT: Public Access to Plans

As a construction official, you are the custodian of many public records, including the plans and specifications for buildings. In light of recent events, it is necessary to evaluate the policies in place for providing members of the public with access to the plans for a given building. Access to plans should be provided only if the request comes from the building owner, or from someone who has established a clear and legitimate need for information contained in the plans. If you have any questions or concerns in applying this standard, please contact the Office of Regulatory Affairs at (609) 984-7672.

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### Improper Truss Installations and Storage Underscore Reasons for Training

The Department of Community Affairs is taking steps to require training on how to perform proper framing inspections. This initiative is the result of the Department becoming aware of significant problems with improper installation and storage of trusses.

Examples of problems include broken web members, which may be caused by the improper storage or overload of certain members by stacking piles of shingles on roofs; poor framing techniques; and un-engineered repairs by contractors that are made without consulting the design professional to ensure proper bracing.

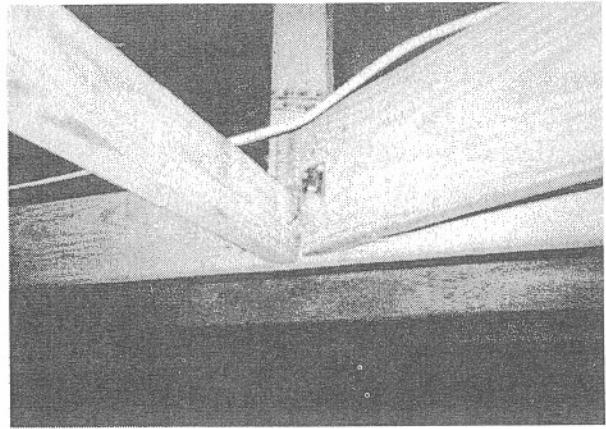
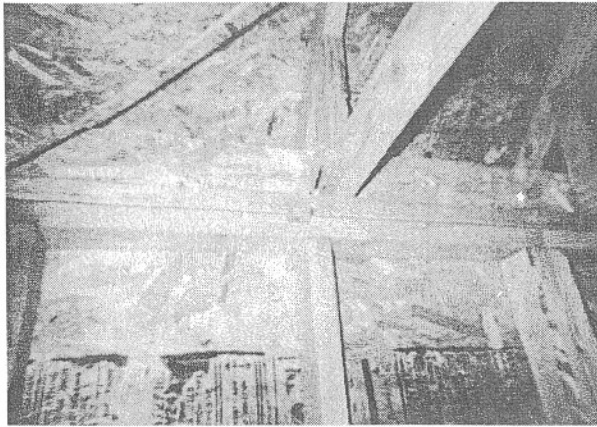
Many problems result from careless workmanship, as can be seen in the pictures below. (The locations where these pictures were taken will remain undisclosed to protect the "not so innocent.")



In truss construction, the unusually long span and/or configuration of trusses requires that extreme care be used in the movement and storage of truss members. The manufacturer's instructions, which should be followed, make this clear.



Shown above are examples of poor framing techniques. The plywood is not aligned appropriately and the wood is split. The truss should have been measured prior to nailing and the damaged wood should have been replaced.



In these trusses, the nails are not connected to the sheathing. The plywood, which should act as a brace, is carelessly assembled. This poor framing weakens and damages the truss.

If you have any questions or concerns, please contact Jeffrey Applegate, Rob Austin, Marcel Iglesias, or John Terry of the Code Assistance Unit at (609) 984-7609.

Source: Kristy Paolillo  
Code Development Unit

### Uniform Construction Code Administrative Records System (UCCARS) -- *PermitsNJ* Update

Since the publication of the Summer 2001 issue of the *Construction Code Communicator*, substantial progress has been made in the development of the new construction activity reporting system. The Department of Community Affairs (DCA) and Office of Information Technology (OIT) staff have been working hard to support the project.

The following is an update of the project's status.

- First and foremost, UCCARS-NG is no more. DCA has chosen a new name for the system: *PermitsNJ*.
- A Java Design architect is working in consultation with OIT to finalize the overall system design. The architect is designing a system inventory used to classify the system's functions and as a basis for programming these functions.
- A system glossary is being drafted to help OIT identify frequently used terms as they apply to the new system.
- A table of proposed fields for the municipal permits sections of *PermitsNJ* is close to completion.

As you already know from previous *Construction Code Communicator* articles, local construction offices will access the *PermitsNJ* database via a web browser. By using a web browser, users will navigate to the *My NJ* web channel to gain automatic access to *PermitsNJ*.

From the *My NJ - PermitsNJ* channel, users can access a relational database structure, which increases functionality for construction offices by improving search features of the system, in addition to the following:

- Error checks and "hint text" in data entry provides for quicker and more accurate data collection.
- Compatibility with commercial office software applications provides the ability to create mail merges and other typical office document processing.
- Local enforcing agencies can stand alone using the Internet to gain automatic access to *PermitsNJ*.

Look forward to the next edition of the *Construction Code Communicator* to keep abreast of changes made, future ideas, and progress achieved regarding the *PermitsNJ* project.

Source: Lynn Ferrara  
Team UCCARS

## Technical Assistants – 4<sup>th</sup> Graduating Class

On the beautiful fall afternoon of October 24, 2001, 54 proud Technical Assistants celebrated their certification. The graduation program and reception were held at the Trenton War Memorial in historic downtown Trenton. Certificates and words of congratulation were offered by Department of Community Affairs' Deputy Commissioner Anthony Cancro, in conjunction with the Director of the Division of Codes and Standards, William Connolly, and the Chief of the Bureau of Code Services, Richard Osworth, along with many well-wishers including construction officials, family, and friends.

Technical Assistants are key players in the Office of the Construction Official and this voluntary educational program allows them to enhance their professional status by establishing a credential. Throughout the State, 159 employees have graduated from this program and there are many more who will finish this semester.

The program is being converted from the core course curriculum to a 40- to 50-hour college course, which will be offered in the evening. This will allow more people from the general public who are interested in code enforcement to enroll. It is anticipated that the course will be available at participating community colleges in the fall of 2002. You may call the Education Unit, Bureau of Code Services for further information at (609) 984-7820.

Photographs were taken at this event and placed on the Technical Assistant website. You may view them at [www.members.home.net/vsalone/NJATA.htm](http://www.members.home.net/vsalone/NJATA.htm).

The Department offers its hearty congratulations. We are sure the graduates of the 4<sup>th</sup> class are experiencing great joy and a true sense of pride!

Source: Susan McLaughlin  
Supervisor, Education Unit  
Bureau of Code Services

## The Natural Nuisance

What's green, black, or a variety of other colors; is sometimes hairy and smelly; and oftentimes hides in the dark, or can be found in places where water is present? Drum roll, please ... **MOLD**.

Recently, there has been much in the media about the effects mold has on health. Understandably, the media's sometimes sensational approach to informing the public has caused some uneasiness among New Jersey's homeowners. The Department of Community Affairs has received inquiries about mold in homes. The most

fundamental question is whether the Uniform Construction Code has jurisdiction over this problem -- as a construction issue -- or whether jurisdiction lies with the Department of Health and Senior Services (DHSS) as a health problem.

Before we jump to conclusions, what do we know about mold? Molds are fungi. They can be found everywhere -- indoors and outdoors -- and they grow anywhere, and I mean *anywhere*, moisture is present. Approximately 1,000 of the 10,000 species of mold are found in the United States, with the most commonly found being Cladosporium, Penicillium, and Aspergillus.

Molds play a saprophytic role, which means that they derive their nourishment from metabolizing or breaking down carbon surfaces, examples of which are cellulose, carpet, wood, dirt, asbestos, insulation, and wallboard. As a result of this metabolic process, molds release millions upon millions of spores containing proteins.

Now, let's consider how molds might affect a person's health. Imagine you are a person with an allergy to pollen. When the air contains pollen, your allergies act up. Your nose might get stuffy, your eyes might be itchy, your chest might be a little congested, and you probably sneeze a lot. Common sense would tell us then that when spores from a certain species of mold are released into the air and are free floating, a person's allergy to that particular species of mold might be triggered, much as it would were he or she allergic to pollen. Similarly, persons with compromised immune systems might be sensitive to molds. Here's an important rule of thumb: the lower your immunity, the greater the chance of being susceptible to allergy and illness.

Through investigation, it has become clear that this is not a construction issue. However, if water/moisture is a problem in the building and is code related, then code officials should address this. Otherwise, medical problems resulting from exposure to molds in buildings or homes are due to an indoor air quality problem, which is a health issue. Jurisdiction for addressing complaints lies with DHSS.

Code Officials: If homeowners have questions about mold or general indoor air quality problems, you may direct them to the DHSS Technical Support and Research Project at (609) 588-3120. Also, information may be obtained from the DHSS website at [www.doh.state.nj.us/health/eoh/tsrp](http://www.doh.state.nj.us/health/eoh/tsrp).

If you have any questions, please contact the Code Assistance Unit at (609) 984-7609.

Source: Megan K. Sullivan  
Code Development Unit



### What Projects Require DCA Plan Review?

The Bureau of Construction Project Review (BCPR) is responsible for performing code reviews on any project that cannot, for one reason or another, be performed by the local municipality. The Bureau is the sole reviewing agency for health-care facilities, casinos, power plants, solid waste disposal plants, public mausoleums, vaults, crypts, and incineration plants. In addition, the BCPR is the primary reviewing agency for State-owned buildings. It also performs a major portion of code reviews on public schools, although it does not have exclusive jurisdiction.

In the Uniform Construction Code, *N.J.A.C. 5:23-4.3A* is the specific regulation governing projects that are not reserved to the State by law. The following summaries of Class 1, 2, and 3 municipalities should help clear up some of the confusion that has existed over the years on unreserved projects.

**Class 1 municipalities** may perform code reviews on essentially any unreserved project in their jurisdiction, as stated at *N.J.A.C. 5:23-4.3A(d)3*.

**Class 2 municipalities** may perform code reviews on any unreserved Class 2 or Class 3 project, as defined at *N.J.A.C. 5:23-4.3A(d)1* and 2, within their jurisdiction. Reconstruction, change of use, the installation or alteration of fire protection systems, or additions to Class 1 structures shall be submitted to the Bureau for review. Further, if an addition to a Class 2 or Class 3 structure would cause the building's classification to change to Class 1, it must also be submitted to the Bureau. At its discretion, the Bureau may keep the project for code review, or return it to the local municipality.

**Class 3 municipalities** may perform code reviews on any unreserved Class 3 building, as defined at *N.J.A.C. 5:23-4.3A(d)1*. Reconstruction, change of use, the installation or alteration of fire protection systems, or additions to Class 1 or Class 2 structures shall be submitted to the Bureau for review. Further, if an addition to a Class 3 structure would cause the building's classification to change to Class 1 or Class 2, it must also be submitted to the Bureau. At its discretion, the Bureau may keep the project for code review, or return it to the local municipality.

The following table shows some of these requirements:

Town's Classification	Building's Classification	Jurisdiction
3	2 with addition	DCA
3	3 with addition to Class 2	DCA
2	2 with addition to Class 1	DCA

Should you have any questions about jurisdiction, please call the Bureau at (609) 633-7448 for further information.

Source: David Uhaze  
Chief, Bureau of Construction Project Review

**What PRINTING Do You Have?** 

Well, the time has come for new code adoptions, and two of New Jersey's newest are the 2000 edition of the International Fuel Gas Code (IFGC) and the 1995 edition of the Council of American Building Officials Model Energy Code (CABO MEC).

With every new code adoption, there are some obstacles. In the case of these two codes, the obstacles were created by the printer. When these codes were first published (first printing), the Department of Community Affairs reviewed, amended, and adopted them. Subsequent printings (second, third, fourth, etc.), however, were *not* identical to the first. To make matters worse, an errata sheet was not provided with subsequent printings, so the code user has not been able to easily identify changes from one printing to the next.

A few examples might help. Section 306.2 in the IFGC changed the passageway width from 35 to 36 inches between printings. Also, in Section 503.10.2.5, a reference

to Table 506.10.2.5 was changed to Table 503.10.2.5. In the CABO MEC, Section 301.2 was deleted without substitution between printings. Also, in Section 602.2.5, the second paragraph was deleted without substitution. Consequently, if you have a question on either of these codes, be ready to be asked, "What printing do you have, please?"

There is a solution that should help resolve this situation. The International Code Council (ICC) website at [www.intlcode.org](http://www.intlcode.org) contains a listing of all errata discovered in the printing of each code edition. This should help clear up some of the confusion; but please note that, based on the printing date, you may have a book that differs from others with the same edition!

If you have any questions, please contact the Code Assistance Unit at (609) 984-7609.

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