NEW JERSEY UNIFORM CONSTRUCTION CODE

Construction Code Communicator

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NEW JERSEY DEPARTMENT OF COMMUNITY AFFAIRS

In This Issue

James E. McGreevey
Governor

Susan Bass Levin
Commissioner

Electrical Subcode Officials, We Need Your Help!

The Department of Community Affairs is seeking information as to whether any municipality has a utility performing installations under *N.J.A.C.* 5:23-2.18A, which contains provisions for the Utility Load Management Device Installation Program. If so, and if there is current action, please e-mail me at raustin@dca.state.nj.us, with the subject line reading "load management." You may also reach me at (609) 984-7609.

Source: Rob Austin
Code Assistance Unit

Energy Code - Residential Basement Wall Insulation Trade-Off

QUESTION: The Energy Subcode (*N.J.A.C.* 5:23-3.18) allows high-efficiency heating equipment to be utilized in place of basement wall insulation. How does this trade-off work while using the RES*check* software?

BACKGROUND: *N.J.A.C.* 5:23-3.18(b)1ii allows for the exemption of insulation in basements of residential buildings provided that high-efficiency equipment is used. The high-efficiency equipment/basement insulation trade-off requires that *all* mechanical equipment installed throughout a residential building meet or exceed the minimum high-efficiency standards (90 percent AFUE for furnaces, 85 percent AFUE for boilers, and 8.0 HSPF for an air source heat pump).

> *Note: N.J.A.C.* 5:23-3.18(b)1ii states that a high-efficiency boiler is rated at 85 percent AFUE or greater. *N.J.A.C.* 5:23-3.18(b)4i refers to Table 502.2.1a; Note 4 of this Table states that a high-efficiency boiler is 86 percent AFUE or greater. The correct rating is 85 percent. This change was published in the June 2, 2003 *New Jersey Register* as an administrative correction.

ANSWER: The RES*check* (formerly known as MEC*check*) software has to be "tricked" to allow the high-efficiency equipment/basement insulation trade-off. When entering area measurements of the proposed residential building, omit the area for a basement and do not include any mechanical equipment. The basement area to be excluded includes the slab, basement walls, and basement ceiling (first floor assembly). The excluded mechanical equipment defaults the software to the equivalent of a minimum AFUE and/or HSPF value.

For example, the only information entered into the software would be walls above grade, glazing, doors and ceiling(s), and a comment on the

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RES*check* Compliance Certificate indicating that high-efficiency equipment will be provided, eliminating the basement insulation requirement.

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

Source: Rob Austin
Code Assistance Unit

New Jersey Register Adoptions

Date: April 21, 2003
Adoption: 35 *N.J.R.* 1663(b)
Summary: These adopted amendments to *N.J.A.C.* 5:23-2.6, 3.2, and 6.31 clarify the applicability of the change of use provisions for special amusement buildings, including temporary haunted houses, and provide standards for the issuance of variations for special amusement buildings.

Date: May 5, 2003
Adoption: 35 *N.J.R.* 1939(c)
Summary: These adopted amendments to *N.J.A.C.* 5:23-2.14, 2.15, 2.18, 2.20, 3.14, 3.16, 3.21, and 12.12 adopt the 2000 edition of the International Building Code (IBC/2000), the 2000 edition of the International Residential Code (IRC/2000), and the 2002 edition of the National Electrical Code (NEC/2002) as the Building, One- and Two-Family Dwelling, and Electrical Subcodes of the Uniform Construction Code (UCC).

Date: May 19, 2003
Adoption: 35 *N.J.R.* 2203(a)
Summary: These adopted amendments to *N.J.A.C.* 5:23-1.4, 2.15, 2.16, 2.18, 2.21, 2.23, 2.24, 2.30, and 9.2 address several different code enforcement issues as follows: the role of plans and plan review in the code enforcement process, the design details that must be submitted with a permit application for a building relying on truss construction, the required elements of a framing inspection, the submittal of calculations to demonstrate compliance with the Energy Subcode, and a requirement for foundation location surveys.

Date: May 19, 2003
Adoption: 35 *N.J.R.* 2207(a)
Summary: These adopted amendments to *N.J.A.C.* 5:23-2.32 and 5:23A-2.1 enable construction officials to act

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Bathtub Traps/Slab Openings

The Department of Community Affairs has received telephone calls pertaining to the requirements for the proper closure of the boxed-out concrete slab opening underneath bathtubs. This opening is provided for the installation of the bathtub trap below. The question is, "Must the boxed-out concrete slab opening below the bathtub be filled in?"

N.J.A.C. 5:23-3.14, the Building Subcode, Section 1806.2.1, "Floors," and *N.J.A.C.* 5:23-3.21, One- and Two-Family Dwelling Subcode, Section R506.2.3, "Vapor Retarder," require that an approved vapor retarder be placed between the concrete floor slab and the base course, or the prepared subgrade where no base course exists. The building inspector must verify proper installation of the approved vapor retarder before the slab is poured.

The approved vapor retarder must still be intact below the installed trap and slab opening. This is the primary factor in determining whether the vapor retarder is code compliant. If the vapor retarder has been removed, punctured, or damaged, it must be repaired or replaced in the boxed-out area as required. The Building Subcode and the One- and Two-Family Dwelling Subcode are silent on the concrete slab opening, except in radon-prone areas.

Use Group R in radon-prone areas in a Tier 1 municipality [*N.J.A.C.* 5:23-10, Radon Hazard Subcode, Section 5:23-10.4(b)6] would require the opening to be "substantially sealed."

The concrete slab opening below the bathtub may be filled in. However, after researching this matter, it has been determined that it is common practice in the industry not to fill in the opening so as to provide access to the trap for future repair or replacement.

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

Source: Thomas C. Pitcherello
Code Assistance Unit

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BUILDING SAFETY CONFERENCE OF NEW JERSEY 2003

The good weather was with the code enforcement community as we made our way to Bally's Park Place in Atlantic City for the 22nd Building Safety Conference of New Jersey. The annual conference increases public awareness of the life-safety services provided within New Jersey's municipalities. A wide variety of educational opportunities were offered to the participants to help them remain up to date with today's technology. The conference attracted over 600 people.

The awards luncheon was held in the new Traymore Ballroom. William Connolly, Director of the Division of Codes and Standards, along with the presidents or representatives of each association, presented awards to individuals for their outstanding achievements in their fields. The award recipients included the following:

John Scialla, Building Inspector, Saddle River Borough and Washington Township in Bergen County

Robert K. Rogers, Jr., Electrical Inspector, Guttenberg Town in Hudson County and Hackensack City, Hasbrouck Heights Borough, Little Ferry Borough, and Ridgefield Borough in Bergen County

John Leonardis, Fire Protection Inspector, Kearny Town in Hudson County

Jerry Tolomeo, Plumbing Inspector, Little Falls Township in Passaic County

Lynn Mizer, Technical Assistant, Millstone Township in Monmouth County

An additional attraction at the conference this year was the sale of the New Jersey editions of the 2000 International Building Code and the 2000 International Residential Code. Other activities included the 8th Annual Golf Outing, crackerbarrel round table discussions with 34 different topics, 22 seminar selections for continuing education credits, an awards reception, association meetings, and a spouse program. William Spiezio from the Township of Nutley in Essex County was selected as the inspector to receive a complimentary registration to the 2004 Building Safety Conference.

Throughout the conference, we were able to interact and enjoy learning and laughter with friends and acquaintances. We hope you will be able to join us next year for new educational opportunities. We will meet at Bally's Park Place on April 28-30, 2004. Mark your calendars. We hope to see you there!

Source: Susan H. McLaughlin
Bureau of Code Services

From left to right, Jerry Tolomeo, Plumbing Inspector; Robert K. Rogers, Jr., Electrical Inspector; Lynn Mizer, Technical Assistant; John Leonardis, Fire Protection Inspector; John Scialla, Building Inspector

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expeditiously when buildings present an actual and immediate hazard to building occupants and other members of the public. In addition, these adopted amendments make it clear that demolition is within the scope of the emergency work that may be undertaken by construction officials. Finally, these adopted amendments establish that emergency orders issued by construction officials are appealable only to a court of competent jurisdiction.

Date: May 19, 2003
Adoption: 35 *N.J.R.* 2208(a)
Summary: These adopted amendments to *N.J.A.C.* 5:23-4.3A modify the enforcing agency classifications of the UCC. These amendments are necessary as a result of the adoption of the IBC/2000.

Date: May 19, 2003
Adoption: 35 *N.J.R.* 2208(b)
Summary: The adopted amendment at *N.J.A.C.* 5:23-4.3A makes an administrative correction to reference the appropriate section for the definition of households of low or moderate income.

Date: May 19, 2003
Adoption: 35 *N.J.R.* 2209(a)
Summary: These adopted amendments to the Rehabilitation Subcode update cross-references to the IBC/2000, the IRC/2000, the 2000 edition of the International Mechanical Code, the 2000 edition of the International Fuel Gas Code, the NEC/2002, and the 1998 edition of the International Code Council/American National Standards Institute A117.1 standard for accessible design and construction. In addition, the adopted amendments delete terms in the UCC that are obsolete.

Date: June 2, 2003
Adoption: 35 *N.J.R.* 2494(b)
Summary: This adopted amendment at *N.J.A.C.* 5:23-3.18(b)4i makes an administrative correction to the Energy Subcode of the UCC to include a companion change at Note 4 in Table 502.2.1a that defines a high energy efficiency boiler as 85 percent AFUE.

Date: June 16, 2003
Adoption: 35 *N.J.R.* 2637(c)
Summary: These adopted amendments to *N.J.A.C.* 5:23-3.4 and 3.16 incorporate into the UCC rules a statutory requirement for automatic rain sensor devices for new lawn sprinkler systems, and assign inspection responsibility for these devices to electrical subcode officials.

Date: June 16, 2003
Adoption: 35 *N.J.R.* 2639(a)
Summary: These adopted amendments to *N.J.A.C.* 5:23-4.19 increase the UCC permit surcharge fee from $0.0019 per cubic foot or $0.96 per $1,000 of the value of construction to $0.00265 per cubic foot or $1.35 per $1,000 of the value of construction, respectively.

Source: Megan K. Sullivan
Code Development Unit

Correction to Division of Codes and Standards' Web Address

Please be advised, the web address provided in the article entitled "Did You Know the Division of Codes and Standards is on the World Wide Web?" which appeared in the Spring 2003 edition of the *Construction Code Communicator* is incorrect. The correct web address is http://www.state.nj.us/dca/codes/.

Source: Dana M. Yedwab
Division of Codes and Standards

DCA Seeks Clarification on Local Penalty Enforcement

In 1999, the New Jersey Legislature adopted a new Penalty Enforcement Law, P.L. 1999, c. 274, which is codified at *N.J.S.A.* 2A:58-10. This new law made a distinction between those penalty cases in which the underlying facts have already been adjudicated and those in which they have not. Thus, where the agency is a State agency and there has been an opportunity for a hearing before an administrative law judge, the new law eliminates the need for a court hearing and allows the agency to have a final order entered upon the Superior Court docket. In other cases, *where there has been no prior administrative adjudication*, a court hearing must be conducted and testimony taken.

The problem here is that P.L. 1999, c. 274 does not specifically deal with a case where there is a prior adjudication, but it is before a county or municipal construction board of appeals, rather than before an administrative law judge. The reality is that, when a local enforcing agency seeks to enforce a penalty after having given an opportunity for an administrative hearing before the construction board of appeals, the situation is no different from that of the Department of Community Affairs when *it* issues a penalty after having provided an opportunity for an administrative hearing. However, the expedited docketing procedure is only available by statute to the Department.

Therefore, it would seem contrary to the clear intent of the new Penalty Enforcement Law for a local enforcing agency to have to spend time and money to retry the underlying facts when it sues to enforce a penalty.

Nonetheless, some municipal courts are now requiring full factual hearings in these cases.

The Division of Codes and Standards has therefore written to the Administrative Director of the Courts to ask that the Supreme Court consider adoption of an amendment to the Rules of Court that would provide that, in any case where there is a statutory right of appeal to an administrative tribunal, the court shall not hear testimony on any issue that was subject to adjudication by such administrative tribunal, except in the context of an appeal from the decision of that tribunal. If such an amendment to the Rules of Court were to be adopted, it would make it unnecessary to change the statute, since the Supreme Court, and not the Legislature, has final authority in establishing court procedures.

In the meantime, if a local enforcing agency encounters any problems with its municipal court, the agency or its attorney should contact me at (609) 292-7899.

Source: Michael L. Ticktin
Chief, Legislative Analysis

Elevator Lobbies Are Back!

For those of you who enforced the 1984 Building Officials and Code Administrators Basic Building Code, you may remember (if you still have your memory) elevator lobbies. Well, they are back. This time, however, the scope of elevator lobbies is very limited.

Section 707.14.1 of the 2000 edition of the International Building Code (IBC/2000) requires elevator lobbies for elevators that open into fire-resistance-rated corridors in buildings having occupied floors greater than 75 feet above the lowest level of fire department access. Table 1004.3.2.1 of the IBC/2000 establishes the need for a fire-resistance-rated corridor based upon occupancy, occupant load, and the existence of a sprinkler system.

Simply stated, high-rise buildings that have rated corridors are required to have elevator lobbies. As you know, all newly constructed high-rise buildings are provided with a sprinkler system; therefore, only high-rise buildings occupied by Groups H-1, H-2, H-3, H-4, H-5, R, I-1, and I-3 are required to have elevator lobbies because they are the only occupancies that have a fire-resistance-rated corridor.

Should you have any questions on this issue, please feel free to contact me at (609) 984-7609.

Source: John N. Terry
Code Assistance Unit

Haunted House Regulations Revised!

On April 21, 2003, the Department of Community Affairs adopted new rules regarding Special Amusement Buildings. The amendments to *N.J.A.C.* 5:23-2.6, "Change of Use;" 3.2, "Matters Covered; Exceptions;" and 6.31, "Change of Use" clearly provide that the construction official has enforcement responsibility for the temporary or permanent use of an existing structure as a "Special Amusement Building." The special amusement is required to comply with the change-of-use provisions of the Rehabilitation Subcode. It should be noted that this includes the temporary change of use of a Commercial Farm Building to a Special Amusement Building.

If these types of uses are occurring in your municipality, you should refer to *N.J.A.C.* 5:23-6.31(a)5x for the scoping requirements and the 2000 edition of the International Building Code, Section 411, Special Amusement Buildings, for the technical requirements.

Happy Halloween to all.

Source: John Terry
Code Assistance Unit

Kiosks -- Do They Comply?

The Department of Community Affairs has recently been made aware of several covered mall buildings that contain noncompliant kiosks. A covered mall is susceptible to specific hazards simply by the nature of its occupancy, and failure to require compliance with the code provisions for kiosks further compounds these hazards. Therefore, compliance with these code requirements is imperative. This article is intended to summarize such requirements.

Temporary or permanent kiosks are required to be constructed in accordance with the New Jersey edition of the International Building Code (IBC/2000), Section 402.10. The requirements contained in this section are the same as those set forth in Section 402.14 of the 1996 edition of the Building Officials and Code Administrators National Building Code.

Kiosks must be constructed either of noncombustible materials or of fire-retardant-treated wood. Additionally, they are required to be provided with approved fire suppression and detection. This means at least one sprinkler head is required to be dropped from the ceiling to protect a covered kiosk.

Sizing and spacing requirements for kiosks are being violated most frequently. Please be advised, IBC/2000 contains very specific requirements. The maximum

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Bonding Metal Gas Piping

QUESTION: How is it possible to bond a metal gas piping system without converting it to a grounding electrode?

BACKGROUND: The 2002 edition of the National Electrical Code (NEC/2002), Section 250.104(B), "Bonding of Piping Systems and Exposed Structural Steel," and the 2000 edition of the International Fuel Gas Code (IFGC/2000), Section 309.2, "Connections," provide that the above-ground portions of a metal gas piping system upstream from the equipment shut-off valve must be electrically continuous and bonded to the grounding electrode system. In addition, NEC/2002, Section 250.52(B), "Electrodes Not Permitted for Grounding," and IFGC/2000, Section 309.1, "Grounding," clearly prohibit the use of the underground portion of a metal gas pipe as a grounding electrode.

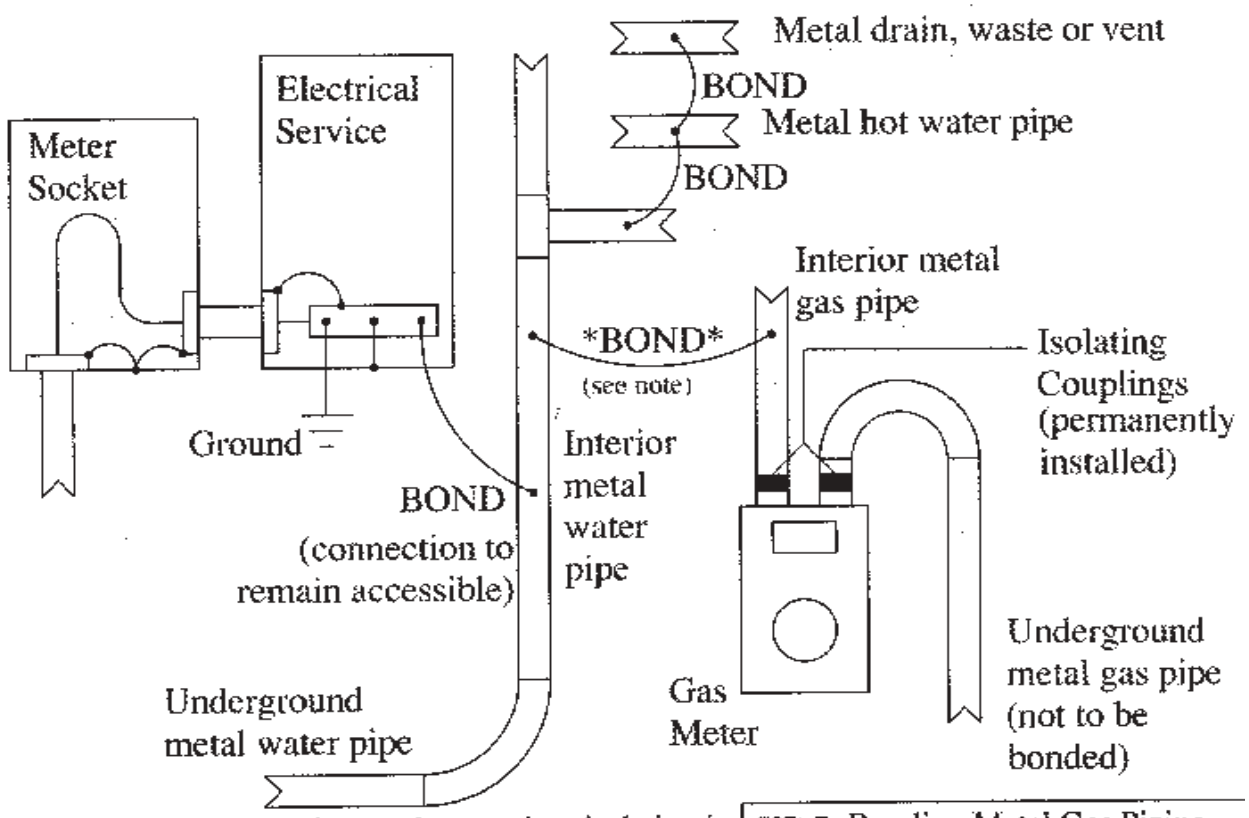
ANSWER: Permanently installed isolating bushings or couplings may be used to bond a metal gas piping system without converting it to a grounding electrode. Also, electrical equipment served by an electrical circuit containing an equipment-grounding conductor that adequately grounds an appliance would be considered the gas pipe bond. (See figure below.)

For sizing of conductors, refer to NEC/2002, Section 250.122, "Size of Equipment Grounding Conductors," and Table 250.122, "Minimum Size Equipment Grounding Conductors for Grounding Raceway and Equipment."

EXAMPLE: A fuel gas pipe supplying *only* a water heater without an electrical connection must be bonded. However, bonding a fuel gas pipe supplying a water heater and any electrical appliance is not required because the equipment grounding conductor of the electrical appliance serves as the bond for the gas piping system.

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

Source: Rob Austin
Code Assistance Unit



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area of a kiosk is 300 square feet and they must be placed so that they are a minimum of 20 feet from other structures within the mall, including other kiosks.

Concerning permits, permanent kiosks require construction permits; temporary kiosks require Type 1 fire permits [*N.J.A.C.* 5:70-2.7(a)3iv].

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

Source: John Terry
Code Assistance Unit

LP Gas Inspections – Temporary Installations

The Department of Community Affairs has been made aware that some local code officials are not performing inspections of temporary liquefied petroleum (LP) gas installations of 2,000 gallons aggregate water capacity or less. Please be advised, it is the responsibility of the local plumbing inspector to perform these inspections.

A temporary installation is one that is in place for less than 180 days. A "Plumbing Technical Section Application" is required for the installation of a vapor delivery system utilizing containers with an aggregate water capacity of 2,000 gallons or less. A plumbing inspection by the local plumbing inspector is also required.

The confusion may have arisen because a "Notice of LP Gas Installation" form must be submitted to the Department's Division of Codes and Standards, Bureau of Code Services, LP Gas Unit for any temporary LP gas vapor delivery system with an aggregate water capacity of 251 gallons or more. However, only LP gas systems utilizing containers with an aggregate water capacity over 2,000 gallons and all liquid transfers are subject to plan review and inspection by the Bureau.

All LP gas vapor delivery installations of 2,000 gallons or less aggregate water capacity are required to be filed for a permit and have inspections performed by the local municipal inspectors. (Note that this is not necessarily the total gallonage of propane per site. Tank and piping arrangements that are not interconnected are regarded as separate systems.)

The following are some items that must be inspected for a temporary LP gas installation:

1. The location and vehicular protection of the tank(s) outside the building
2. The proper label for the tank(s) for the intended use
3. The proper supports under the tank(s)
4. The proper shutoff valves and piping materials
5. The proper protection of the piping from the tank(s) to the piece of equipment or appliance in the building
6. The proper gas pressure regulators
7. The labeled equipment or appliance for the intended use
8. The rain cap over the pressure relief valve and inclusion of a dome cover on top of the propane tank
9. The LP gas supplier's name and emergency telephone number on the propane tank

The full requirements for these installations can be found in the National Fire Protection Association No. 58 – 1998 edition. Any piping must meet the requirements of the 2000 edition of the International Fuel Gas Code.

It is very important that all temporary LP gas vapor delivery installations with a water capacity of 2,000 gallons or less be inspected by the local inspectors for code compliance.

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

Source: Thomas C. Pitcherello
Code Assistance Unit

New Forms Mirror New Rules . . . However, UCCARS Does Not

Administrative rule changes, which went into effect on May 19, 2003, coupled with a number of changes in field practices and experiences, have caused the Department of Community Affairs to revisit several of the Uniform Construction Code (UCC) standard forms recently. Notice of Imminent Hazard, Notice of Unsafe Structure, Notice of Violation and Order to Terminate, and Notice and Order of Penalty, which were formerly addressed by two dual-purpose forms (UCC F-240 and UCC F-210, respectively), are now addressed separately, each with its own form.

At the same time, the Stop Construction Order, though not directly affected by any particular rule change, was also modified in order to better align it with changing practices and with the four forms mentioned above.

In addition, and as a result of the May 19th rule changes concerning certificate requirements, the Application for Certificate standard form was amended as well.

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Adopted Rule to Extend Deadlines for Licensees Called to Active Duty

The Department of Community Affairs recognizes that, in conditions of war or other national emergency, situations may arise in which individuals who are called up for military service are unable, for that reason, to complete continuing education requirements, or other licensing or certification requirements, in a timely manner.

Accordingly, a rule has been adopted that was effective upon publication in the July 21, 2003 issue of the *New Jersey Register* providing that any deadline for compliance with any licensing or certification requirement that cannot be met because the individual is serving on active duty in the armed forces of the United States, or of a state, shall be extended until 60 days following the return of the individual from active duty, or such further time as may be necessary to allow a reasonable opportunity for compliance with the licensing or certification requirement. Existing licenses or certifications would be extended accordingly.

Source: Michael L. Ticktin
Chief, Legislative Analysis

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And finally, a handful of minor changes were made to the Certificate itself and to the Order to Vacate placard as well. However, no substantive change in the way these two forms are used need result.

Six of the eight new or modified forms are outputs of the Uniform Construction Code Administrative Records System (UCCARS). While the UCC standard forms themselves have been modified accordingly, and camera-ready art has already been provided to each municipal construction code enforcement office for the printing of such forms, due to the impending release of *PermitsNJ*, the UCCARS software has *not* been modified to incorporate the updated text on those six forms. In some instances, you may continue to use UCCARS to produce a Notice or an Order, but in others, it is not advisable. When you may or may not use UCCARS will depend upon the Notice or Order to be issued and the specific circumstances of each case. Refer to the following guidelines before issuing any of them.

Notice of Imminent Hazard Administrative rule changes concerning both the method by which a construction official may eliminate an actual and immediate danger, and the way in which the property owner must appeal the Notice of Imminent Hazard were the driving force in separating this Notice from its former partner, the Notice of Unsafe Structure. Thus, in the case of an imminent hazard, *the newly revised form must be used*.

Notice of Unsafe Structure Notwithstanding its separation from the Notice of Imminent Hazard, there are only two substantive changes to the Notice of Unsafe Structure, i.e., the addition of the Qualification Code and the addition of a place to indicate the Order was issued to a party other than an owner or owner's agent/contractor. Of the two, only the latter *requires* the use of the newly revised form, but even then, *only* if the party against whom the Order is being issued is *not* the owner or the owner's agent/contractor.

Notice of Violation and Order to Terminate Aside from the Notice being separated from the Notice and Order of Penalty, the only changes are the addition of the Qualification Code and the addition of a place to indicate the Order was issued to a party other than an owner or owner's agent/contractor. Of the two, only the latter *requires* the use of the newly revised form, but even then, *only* if the party against whom the Order is being issued is *not* the owner or the owner's agent/contractor.

Notice and Order of Penalty Again, aside from the Notice being separated out to a form of its own, of the four changes made to the language of UCC F-210 pertinent to the Notice and Order of Penalty, i.e., the addition of the Qualification Code, the clearer delineation of the circumstances for which the penalty was assessed, the check boxes to indicate daily or weekly penalties, and the addition of a place to indicate the Order was issued to a party other than an owner or owner's agent/contractor, only the last *requires* the use of the newly revised form, but even then, *only* if the party against whom the Order is being issued is *not* the owner or the owner's agent/contractor.

Stop Construction Order Of the four changes made to UCC F-250, i.e., the addition of the Qualification Code, the ability to indicate by discipline the work to be stopped, the addition of text warning that a certificate will not be issued until any penalties issued have been paid, and the addition of a place to indicate the Order was issued to a party other than an owner or owner's agent/contractor, again, only the last *requires* the use of the newly revised form, but even then, *only* if the party against whom the Order is being issued is *not* the owner or the owner's agent/contractor.

Application for Certificate The changes to this form are substantive and come as a result of amendments to the administrative rules; therefore, the newly revised UCC F-270 must be used. However, as the certificate application is *not* an output of UCCARS, from the UCCARS perspective, it is a non-issue.

Certificate Since there were only two simple changes made to UCC F-260 (the addition of a place for "Qualification Code" following "Block" and "Lot" under Identification, and deletion of the word "Occupant" after the phrase "Owner in Fee"), construction code enforcement offices may continue to produce Certificates from UCCARS.

Order to Vacate UCC F-245 is *not* an output of UCCARS. Therefore, in terms of UCCARS use, it too is a non-issue.

In conclusion, when producing:

- A Notice of Imminent Hazard -- *DO NOT* use the old, dual-purpose "Unsafe/Imminent Hazard" print violation notice feature of UCCARS.
- A Notice of Unsafe Structure -- if the intended recipient *is* the owner or the owner's agent/ contractor, then you may use the old, dual-purpose "Unsafe/Imminent Hazard" print violation notice feature of UCCARS, if you so choose.
- A Notice of Violation and Order to Terminate -- if the intended recipient *is* the owner or the owner's agent/contractor, then you may continue to use the old, dual-purpose "Violation/Penalty Notice" print violation notice feature of UCCARS, if you so choose.
- A Notice and Order of Penalty -- if the intended recipient *is* the owner or the owner's agent/ contractor, then you may continue to use the old, dual-purpose "Violation/Penalty Notice" print violation notice feature of UCCARS, if you so choose.
- A Stop Construction Order -- if the intended recipient *is* the owner or the owner's agent/contractor, then you may continue to use the old "Stop Construction Order" print violation notice feature of UCCARS, again, if you so choose.
- A Certificate -- you may continue to print this form from UCCARS.

If you have any questions, you may reach me at (609) 292-7899.

Source: Berit Osworth
Division of Codes and Standards

Rehabilitation Subcode

The Office of Regulatory Affairs continues to receive complaints from contractors, design professionals, and code officials who are enforcing new construction provisions on work in existing buildings, thereby illegally ignoring the Rehabilitation Subcode (*N.J.A.C.* 5:23-6). These complaints have been so pervasive that the presidents of each of the inspectors' associations have asked me to write this warning.

The Rehabilitation Subcode, which was adopted in 1998, as you all know, has won awards throughout the nation, and has been recognized as one of the most innovative and logical approaches in dealing with the rehabilitation of existing structures.

If you have a personal disagreement with a section or sections of the Subcode, your recourse as a code official is to submit a code change proposal to the Department of Community Affairs, which holds a hearing in March each year.

You do not have the authority to disregard a section of the Rehabilitation Subcode and substitute requirements which pertain to new construction, or create your own version of the Subcode. Acts of this nature will give rise to disciplinary actions before your peers.

Source: Louis J. Mraw
Supervisor
Office of Regulatory Affairs

Radon Gas Collection 

It has been brought to the attention of the Department of Community Affairs that the regulations for radon construction techniques are being misinterpreted. Please be advised, there are two methods in which *N.J.A.C.* 5:23-10, the Radon Hazard Subcode, provides for the collection of radon gas from underneath slabs in new home construction.

The first method, as set forth at *N.J.A.C.* 5:23-10.4(b)3, requires that an interior foundation pipe drain be installed in the subslab aggregate below the basement slab and be connected to the vent pipe through the roof. The connection to the vent pipe may be directly to the vent pipe or may be to a sump pit that is connected to the vent pipe (*N.J.A.C.* 5:23-10.4(b)8. However, *N.J.A.C.* 5:23-3.14, the Building Subcode, provides for the installation of exterior foundation drains in new construction with basements for subsoil drainage, which may be connected to a sump pit in the building's basement. These drains, which are placed outside of the foundation walls, will not collect radon gas from beneath a basement slab. In such instances, the underslab area must be vented using the second method, which is described below.

The second method is to be used only if the first method is not used, or for slab on grade designs. *N.J.A.C.* 5:23-10.4(b)4 provides for the installation of one vent pipe with a tee fitting in the subslab aggregate for every 1,500 square feet of subslab area.

Both of these methods allow for the collection of the radon gas from beneath the building's slab and its transmission up through the vent pipe to the exterior. The primary purpose is to collect the radon gas that accumulates in the aggregate course below the slab and conduct it to the exterior with the independent vent stack pipe.

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

Source: Jeffrey Applegate
Code Assistance Unit

Wind

The wind maps in the newly adopted 2000 editions of the International Building Code (IBC/2000) and International Residential Code (IRC/2000) are significantly different than the wind map provided in the 1996 edition of the Building Officials and Code Administrators National Building Code (BOCA/1996), and the 1995 edition of the Council of American Building Officials (CABO) One- and Two-Family Dwelling Code (CABO/1995).

The method used to measure wind speed has changed. In BOCA/1996 and CABO/1995, wind speed is measured according to the fastest mile; whereas, in the IBC/2000 and IRC/2000, wind speed was measured according to a three-second gust. Table 1609.3.1 of the IBC/2000 and Table R301.2.1.3 of the IRC/2000, which are entitled "Equivalent Basic Wind Speeds," provide a wind-speed conversion for the two distinct methods for measuring wind speed.

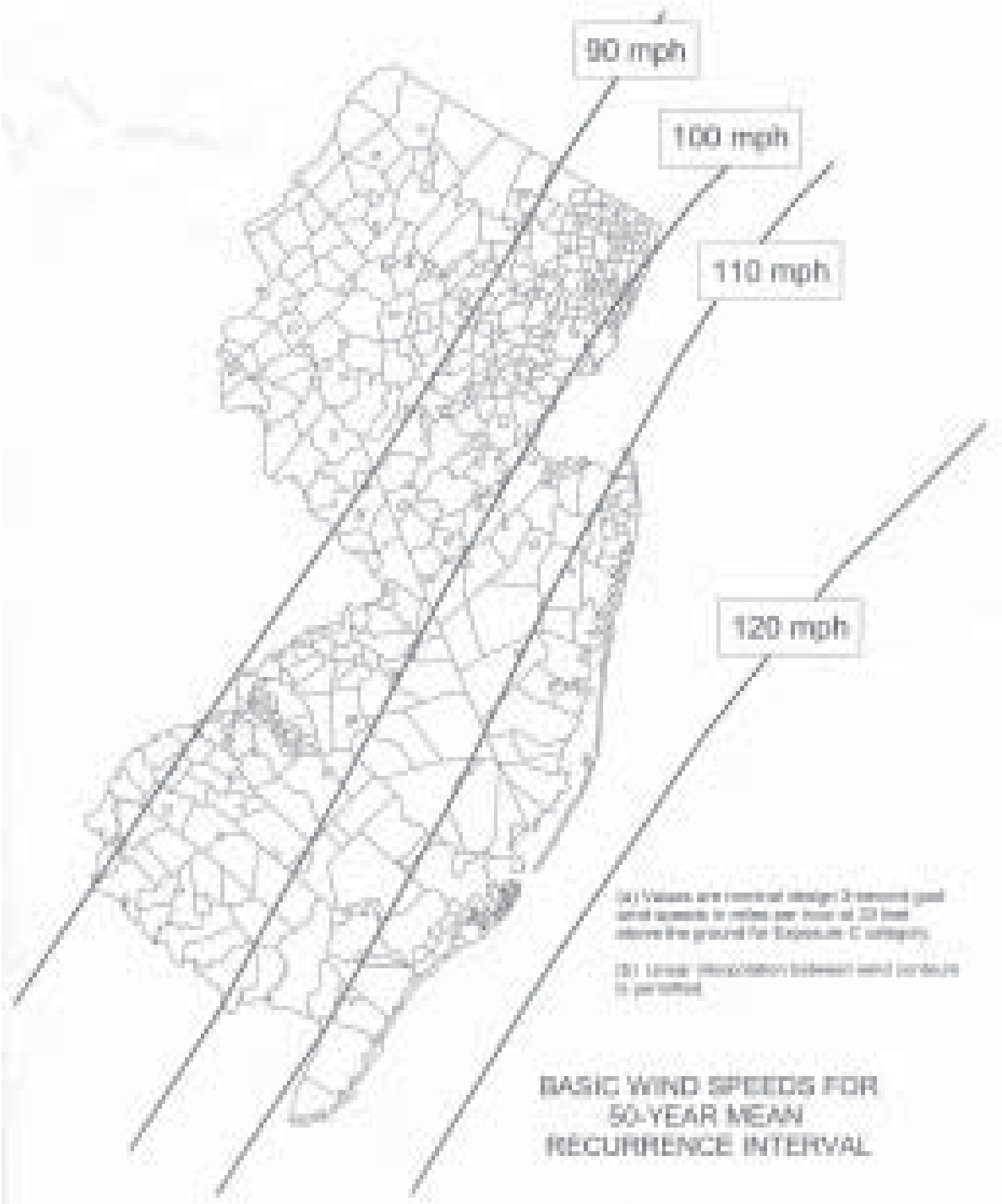
Another interesting change is that, for areas within one mile of the coastal mean high-water line where the wind speed is 110 mph or greater and within hurricane-prone regions, all building openings must be protected from wind-borne debris. Section 1609.1.4 of the IBC/2000, entitled "Protection of Openings," and Section R301.2.1.2 of the IRC/2000, entitled "Wind Limitations," address the wind-borne-debris area openings protection. These sections provide the criteria for compliance for opening protection in the regions where it is required.

In addition to these changes, interpolation is now allowed between the wind-speed contour lines.

The enlarged wind-speed map provides easier reading of the isolines of the Basic Wind Speed maps in the IBC/2000 and the IRC/2000. (This map is provided in Bulletin No. 03-4.)

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

Source: Marcel Iglesias
Code Assistance Unit


90 mph
100 mph
110 mph
120 mph
BASIC WIND SPEEDS FOR
50-YEAR MEAN
RECURRENCE INTERVAL

Stepped-Down Foundation Walls

(Reprinted from the Fall 1995 edition of the *Construction Code Communicator*, Volume 7, Number 3)

The practice of reducing the thickness of foundation walls once the wall is above grade is ever increasing.

The scope of this article is limited to the use of Tables 1805.5(1) for plain masonry and plain concrete walls, and Tables 1805.5(2), 1805.5(3), and 1805.5(4) for reinforced concrete and masonry walls of the 2000 International Building Code, which specify the minimum thickness of foundation walls for various building materials when calculations are not provided.

The wall thickness specified in these tables is based on the height of unbalanced backfill which the foundation is required to support. The wall is required to be this thickness from support to support, in most cases from the top of the footing to the bottom of the sill plate. If the thickness of the wall is reduced at any point in between supports, the depth of unbalanced backfill is limited to the tabular depth based on the reduced wall thickness.

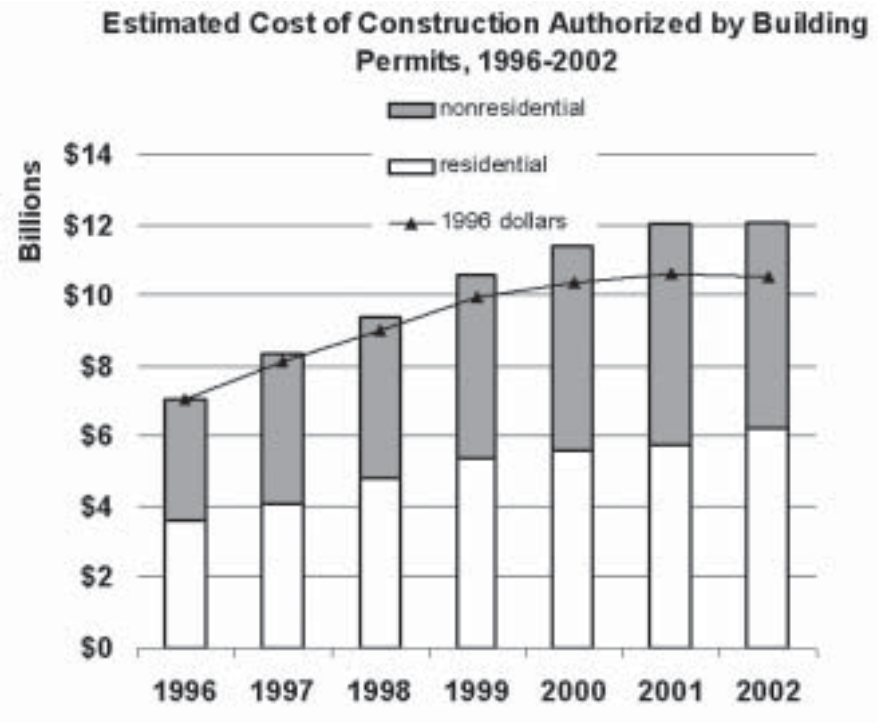
To demonstrate this point, envision the foundation wall on the horizontal plane. This wall is nothing more than a supported beam with the connections at the top of the foundation and the bottom of the plate being the end supports, and the unbalanced backfill being the distributed load. When viewing the wall in this plane, it is obvious that the thickness of the "beam" is required to be consistent from support to support. The same holds true for the vertical plane.

Should a design professional choose to use a design beyond the scope of Tables 1805.5(1) through 1805.5(4), calculations should be submitted for the code official's review and release.

Source: John N. Terry
Code Assistance Unit

2002 Highlights of the *New Jersey Construction Reporter*

New Jersey's construction industry had another strong year in 2002, but there are signs that the boom beginning in the late 1990s has peaked. Estimated construction costs authorized by building permits in 2002 reached $12.1 billion. This was $72 million more than the record level set last year, an increase of less than one percent. In real terms, assuming consumer prices increased by about 1.6 percent between 2001 and 2002, the estimated cost of construction authorized by building permits actually declined by about one percent.



Houses had a key role in the construction industry. Residential construction amounted to $6.2 billion, 51.4 percent of all activity. Office, retail, schools, and other nonresidential uses accounted for $5.9 billion, or 48.6 percent of the estimated construction costs reported on all building permits issued in 2002 for new structures, or additions and alterations to existing ones. In the seven years that the Department of Community Affairs has published construction statistics, the yearly increase in estimated construction costs had ranged between $600 million and $1.2 billion. This year, however, was the first time the annual increase was less than $100 million.

Two other important indicators of the State's construction industry were down in 2002. The number of new houses authorized by building permits declined by nearly 1,100 units compared to last year. There were 34,589 authorized housing units in 2002. This was 3.1 percent less than the 35,680 authorized last year and 9.1 percent less than the 38,065 authorized dwellings in the year 2000; the latter has been a high-water mark for over ten years.

New Jersey Construction Indicators: 1996-2002

	Estimated Construction Costs	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	$8,346,533,144	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
2001	$12,007,456,630	35,680	19,134,533	7,244,833
2002	$12,079,942,099	34,589	9,261,054	7,560,913
Change between 2001 and 2002				
2001-2002	$72,485,469	-1,091	-9,873,479	316,080
Percent Change	0.6%	-3.1%	-51.6%	4.4%

Source: N.J. Department of Community Affairs, 5/7/03

The production of new office space declined sharply in 2002. Last year was a banner year for new office buildings. Construction officials issued permits for more than 19 million square feet of structures in the business use group, which includes commercial and public sector office buildings. Jersey City in Hudson County stood out with 4.1-million square feet, more than one-fifth of all the State's new office space. The Goldman Sachs tower on the Jersey City waterfront broke ground in 2001. The 1.5-million-square-foot building is across from New York City's financial district. When complete, the office tower will be reputedly the tallest man-made structure in New Jersey. In 2002, construction officials issued building permits for only about 9.2-million square feet of new office space. This was less than half the level of activity reported last year.

Retail uses showed modest gains in 2002. The amount of new retail area authorized by building permits for new construction or additions to existing buildings in the mercantile use group totaled 7,560,913 square feet. This was 4.4 percent more than last year.

Although office and other business uses had large and significant declines in 2002, total activity measured by the estimated dollar amount of construction stayed at about the same high level reached last year because of strong performances in other sectors of the construction industry. The market for new houses remained strong and increases in the amount of

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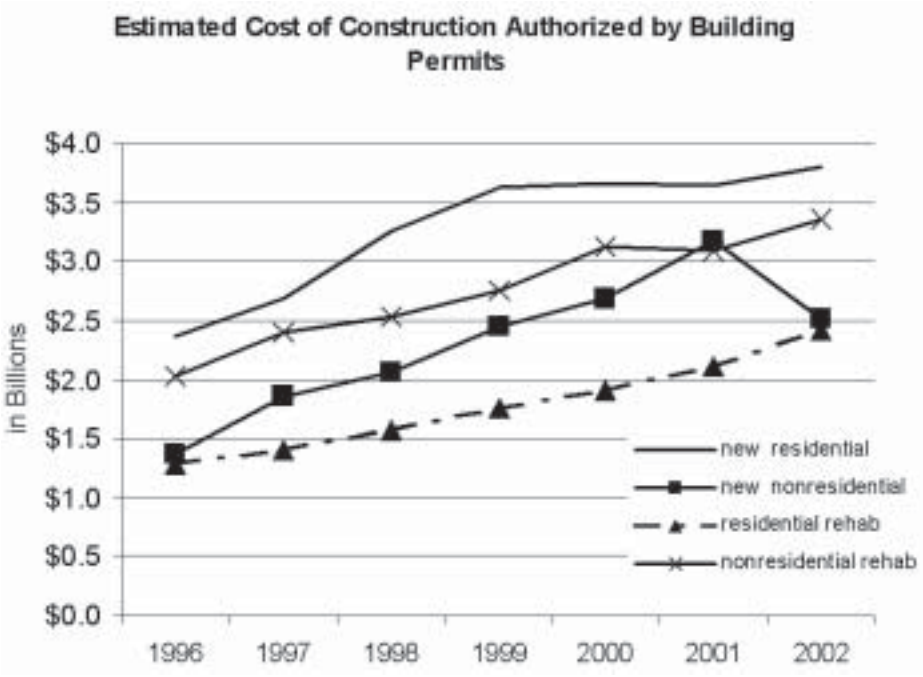
money spent to add to or alter existing homes, as well as to make improvements to nonresidential structures, compensated for the decline in office production.

The estimated cost of all permits issued for office and other business uses declined by $780.7 million in 2002 compared to last year. Increases in residential construction ($453.9 million over 2001), educational uses (which include schools for students in grades K through 12 — $115.3 million more than last year), institutional uses (which cover such buildings as jails, hospitals, nursing homes, and assisted-living facilities — up by $131.1 million), and retail uses (up by $116.4 million) offset the decline in office construction.



The graph above tells several things about the dynamics of New Jersey's construction industry. New houses have a vital role in the industry's performance. In the late 1990s, the estimated cost of construction reported on building permits issued for new houses grew sharply, as did the number of new dwellings. In the early years of the 21st century, the number of new houses authorized for construction declined, but the cost of these houses continued to grow, albeit at a much slower pace, supporting the notion that the new houses that were approved were larger and more expensive. New housing construction increased by 3.8 percent over last year, a modest increase but still a force in the industry, considering the estimated cost of all new housing was nearly $3.8 billion.

The graph also shows the steep decline in building permits issued for new, nonresidential structures. As discussed earlier, the drop-off in new office buildings accounts for much of this loss. After experiencing five years of double-digit increases, the estimated cost of construction reported on new construction permits for nonresidential structures declined by nearly 21 percent between 2001 and 2002.

In contrast was the performance of that part of the industry devoted to the rehabilitation of existing buildings. Permits for additions and alterations include tenant fit-ups. No doubt this was an important part of the level of activity in 2002, as contractors built to customize the new office space constructed in past years. Addition and alteration permits also were issued to repair older houses and improve nonresidential structures. In 2002, the estimated cost of construction for additions and alterations totaled $5.8 billion. This was 48 percent of the estimated cost of all work reported on building permits. Last year, permits for additions and alterations accounted for only 43.2 percent of all work authorized. Between 2001 and 2002, rehabilitation work grew by $590.6 million, or 11.4 percent. Additions and alterations to existing houses were especially strong, increasing by 14.9 percent, while nonresidential rehab grew by 9 percent over the 2001 level. Rehabilitation of houses and other existing buildings had a much more prominent role in New Jersey's construction industry in 2002.

Activity by Region

The geography of New Jersey construction activity shows that the central part of the State accounted for most of the new houses, new office buildings, and new stores. But, viewed in terms of dollars, northern New Jersey communities rose to the top. The dominance of central New Jersey in the housing market has been a trend for many years. In 2002, three of the top four counties with the most new houses were in the central part of the State. Ocean County was at the top with 3,949 authorized units, 11.4 percent of all the new housing in New Jersey. Middlesex and Monmouth Counties had 2,500 and 2,468 authorized units, respectively. Over one in four new houses were in those three counties.

Major Construction Indicators by Region: 2002

Region	Estimated Cost of Construction	Authorized Housing Units	Authorized Office Space (square feet)	Authorized Retail Space (square feet)
North	$4,958,039,635	12,557	2,655,202	1,815,521
Central	$4,233,550,469	13,549	4,313,927	3,817,621
South	$2,544,101,033	9,561	2,062,512	1,766,806
State Buildings	$344,250,962	13	229,413	160,965
New Jersey	**$12,079,942,099**	**34,589**	**9,261,054**	**7,560,913**
Percent Distribution by Region				
North	41.0%	33.2%	28.7%	24.0%
Central	35.0%	36.9%	46.6%	50.5%
South	21.1%	29.9%	22.3%	23.4%
State Buildings	2.8%	0.029%	2.5%	2.1%
New Jersey	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: N.J. Department of Community Affairs, 5/7/03

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

Nearly 47 percent of all new office space and more than half of all new retail space were in the central part of the State. Despite this concentration, a higher proportion of the estimated dollar amount of construction was in northern New Jersey. Communities in the northern part of the State had just under $5 billion of activity (41 percent), while central New Jersey had $4.2 billion (35 percent) and southern New Jersey accounted for $2.5 billion (21.1 percent). Northern New Jersey communities were the site of several of the bigger permits issued during the year. These included two new construction permits for light rail transit systems in Hudson County, one in North Bergen Township with an estimated cost of $150 million and the other in Weehawken Township with an estimated construction cost of $100 million. Three new medical facilities were among the other large developments in 2002. Work began on a new hospital in the City of Vineland, Cumberland County. The construction cost of the facility exceeded $125 million thus far. The Jersey City construction office issued a permit update for work begun last year for a new medical center. The estimated cost of construction in 2002 exceeded $98 million. The City of Hackensack in Bergen County reported an $80-million permit for a new medical center.

Big Cities Continue to Shine

The municipalities with the most work in 2002 were the State's largest cities. This continued a trend of recent years. Jersey City and the City of Newark (Essex County) ranked first and second with the most activity measured by the estimated

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cost of construction authorized by building permits. Jersey City had $314.2 million and Newark had $307.5 million. Strong housing markets were evident in both communities, only this time Newark ranked first with the most new houses (1,223 authorized units) and Jersey City was second among all localities with 907 authorized dwellings. In Jersey City, tenant fit-up work continued on the Goldman Sachs tower which, along with the new medical center, were among the largest projects in 2002. In addition to new housing, some of the larger developments in Newark included a new bank and several projects to expand facilities at the New Jersey Institute of Technology.

Construction Indicators
Top New Jersey Municipalities: 2002

Municipality	County	Estimated Cost of Construction (dollars)	Authorized Housing Units	Authorized Office Space (square feet)	Authorized Retail Space (square feet)
Jersey City	Hudson	$314,154,029	907	157,198	430
Newark City	Essex	$307,466,068	1,223	479,267	21,413
Atlantic City	Atlantic	$256,518,474	201	972	8,000
Vineland City	Cumberland	$188,442,308	251	150,176	8,700
North Bergen Township	Hudson	$169,933,154	63	0	0
Montgomery Township	Somerset	$139,845,765	607	0	0
East Brunswick Township	Middlesex	$131,385,919	230	142,834	467,844
Hamilton Township	Mercer	$123,381,049	421	283,439	1,055,656
Weehawken Township	Hudson	$122,481,081	0	0	0
Jackson Township	Ocean	$117,257,632	599	0	20,951
Top Municipalities		$1,870,865,479	4,585	1,213,886	1,582,994
New Jersey		**$12,079,942,099**	**34,589**	**9,261,054**	**7,560,913**

Source: N.J. Department of Community Affairs, 5/7/03

Atlantic City in Atlantic County ranked third among localities with the most work in 2002. The Showboat Casino Hotel had a $55-million hotel addition. Work continued on the Borgata Hotel Casino and Spa. Other big permits reported for the year in Atlantic City were issued for a new thermal energy plant and a new middle school.

Vineland had $188.4 million of construction in 2002, ranking fourth among all communities. In February, work began on a new hospital that will be a regional center for much of southern New Jersey. Permit updates for the complex were still being reported in November 2002.

North Bergen had $169.9 million of construction. As mentioned earlier, excavation and construction of a light rail system for New Jersey Transit accounted for $150 million of this total.

In Montgomery Township, Somerset County new housing, much in the form of assisted living, along with a new high school, accounted for a large part of the $139.8 million of construction. The new high school will have 350,000 square feet and an estimated construction cost of over $35 million. The assisted-living complex will have nearly 200 units, and is part of a larger medical complex that will include a nursing home and hospital for seniors. Estimated costs to build these facilities also will exceed $35 million.

Construction activity in East Brunswick Township, Middlesex County was split between residential and nonresidential structures. Hamilton Township in Mercer County reported $123.4 million of construction. Much of this consisted of several large, new retail stores, like Kohl's department store and a Lowe's Home Improvement Warehouse. Hamilton issued building permits for over one-million square feet of new retail space in 2002, tops among communities. As mentioned earlier, $100 million of the $122.5 million reported in Weehawken was for a new light rail facility. Much of the work in Jackson Township, Ocean County was for new housing. Jackson had 599 authorized dwellings in 2002, ranking eighth among all municipalities. Of the $117.3 million reported for the year, nearly 72 percent was for residential work. Jackson also had a $12.3-million permit for a new elementary school.

In addition to Newark and Jersey City, two other New Jersey cities were among the top 20 communities with the most new houses: the City of Hoboken in Hudson County and the City of Camden in Camden County. Hoboken had 576 authorized housing units in 2002, ranking ninth among all municipalities. Most of this was multifamily housing. Camden had 534 authorized units, of which 340 will be new, market-rate apartments resulting from the conversion of the old RCA factory. Because these units are from a conversion of an existing building, they are not counted by the United States Census Bureau, which looks only at new construction to report authorized housing. The New Jersey Department of Community Affairs, however, includes these dwellings in its tally of authorized dwellings. All told, Newark, Jersey City, Hoboken, and Camden accounted for 3,240 authorized dwellings in 2002. This was 9.4 percent of all the new housing units authorized by building permits.

New House Prices

The median sales price of the 23,647 new houses that began enrollment in a new home warranty program in 2002 was $274,705. This was 8.3 percent more than the median sales price last year. Bergen County had the most expensive new houses. Half of the 1,122 new houses that started enrollment in a warranty program in 2002 cost more than $478,000. Hunterdon and Somerset Counties had median sale prices of $441,070 and $405,490, respectively. The least expensive new houses were in Cumberland County. Half of the 231 new houses that began enrollment in a warranty program cost more than $155,244. Most new houses built in New Jersey are required to enroll in a warranty program. The exceptions are apartments and other rental units, and new houses built by homeowners who acted as their own general contractors.

New House Prices

Period	Number of New Houses	Median Sales Price	Percent Change in Sales Price
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%
2001	23,372	$253,670	9.5%
2002	23,647	$274,705	8.3%
1st Quarter 2002	5,645	$259,900	
2nd Quarter 2002	6,381	$274,612	5.7%
3rd Quarter 2002	5,894	$279,900	1.9%
4th Quarter 2002	5,737	$282,500	0.93%
1st Quarter 2003	4,018	$290,900	2.9%

Source: N.J. Department of Community Affairs, 5/7/03

NOTES

NOTES

Greetings from Governor James E. McGreevey and Commissioner Susan Bass Levin

One fundamental principle of the New Jersey State Uniform Construction Code (UCC) is that New Jersey citizens are provided with safe and affordable housing and buildings. This is achieved through local code enforcement agencies working in partnership with design professionals, builders and developers.

Three times per year, the Department of Community Affairs' (DCA) Division of Codes and Standards publishes the *Construction Code Communicator*. This newsletter provides subscribers - both public and private - with information on emerging construction issues. It also provides code officials with guidance on UCC administration and enforcement.

Through the *Construction Code Communicator* and all of our programs and services, we remain committed to providing safe and affordable housing and buildings to New Jersey citizens.

With all good wishes,

James E. McGreevey
Governor

Susan Bass Levin
Commissioner

James E. McGreevey
Governor
State of New Jersey

Susan Bass Levin
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NJ Department
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