Construction Code Communicator

State of New Jersey
Philip D. Murphy, Governor

Department of Community Affairs
Jacquelyn A. Suárez, Commissioner

Volume 36, Number 4 **Winter 2024**

The Winter Communicator: A Reminder

The final (Winter) issue of the *Construction Code Communicator* each year consists of a collection of Alerts, Hot Topics, Letters from the Director, guidance documents, and other information items that were posted on the Division's website during the calendar year. We are including articles that were printed in earlier editions of the *Construction Code Communicator* on topics that continue to generate questions. Once this edition of the *Construction Code Communicator* has been posted, these individual Alerts, Hot Topics, Letters from the Director, guidance documents, and other information items will be removed from those sections of the Division's website. There is one exception: the materials related to Superstorm Sandy will remain in place. ***Generally, there are no new articles in this issue. However, there are times when a short, new article finds its way into the Winter issue, such as this issue.***

Please note that, although the documents will be removed from the Alerts and Hot Topics, they will still be accessible through the Division's Document Library or through the "Topics A-Z" tab on the Division's website: https://www.nj.gov/dca/codes/index.shtml.

As it remains, the *Construction Code Communicator* will follow this same format: three issues, Spring, Summer, and Fall, that contain new articles and a Winter issue that will provide in one place all the Alerts, Hot Topics, Letters from the Director, guidance documents, and other information items that were posted on the Division's website in that calendar year with previously printed articles where the topic continues to generate questions.

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In This Issue

(The Winter Communicator: A Reminder)

If you have any questions about the *Construction Code Communicator*, or if you have any recommendations for articles, please feel free to contact me at (609) 984-7609 or at ian.rayfield@dca.nj.gov.

Source: Ian Rayfield
Code Development Unit
(609) 984-7609

The UCC Act at 50

On October 7, 1975, then Governor Brendan Byrne signed the Uniform Construction Code Act into law.

The Uniform Construction Code itself was brought into existence through the visionary work of two people: Bill Connolly and Chuck Decker. Both were architects by training. Their creative work was not in the design of a building, but in the design of a code enforcement system. This code enforcement system has met the test of time. The passing years have brought new challenges and many changes, but the basic structure of New Jersey's code enforcement system has remained intact.

On the following pages, Chuck's handwritten timeline for implementation of the Uniform Construction Code, beginning from passage of the Act in 1975, is reprinted. It is followed by his hand-drawn flow chart—a depiction of the code enforcement process which continues to be remarkably accurate. These documents truly are the blueprints for the Uniform Construction Code enforcement system.

Our code enforcement system is straightforward and logical. From our vantage point, 50 years later, it is easy to say "of course." There are few still working in code enforcement who remember what existed before the adoption of the UCC. In 1975, each town adopted its own construction requirements. Some were outdated. Some were non-existent. Some were specification codes rather than performance codes. Some did not provide even minimal protection to the public. Enforcement of these requirements was scattered and uneven. Property owners went to the local fire prevention bureau for approval to install or to replace oil burners or tanks; the plumbing inspectors were under the Department of Health and electrical inspectors were under the jurisdiction of the Board of Public Utility Commissioners (now the Board of Public Utilities). At the State level, there were 22 different agencies or authorities regulating some aspect of construction. It seems crazy now to think about each municipality having different requirements and permit applicants running from one desk to another in town hall to obtain approvals. The idea of a single set of requirements adopted at the State level and enforced at the municipal level by a single administrative unit, headed by a construction official, became law in New Jersey with that bill signing. The plans were laid for the creation of a body of well-trained professionals to enforce the new rules. And New Jersey went on to become recognized as a national leader in code enforcement.

As we mark this milestone, we are also looking to the future of code enforcement in New Jersey. How do we attract qualified people to this field? How should code enforcement be organized so that it continues to serve the citizens of New Jersey well? It is incumbent on us to ensure that this highly effective system of code enforcement is adapted to continue for the next 50 years.

Source: Code Development Unit
(609) 984-7609

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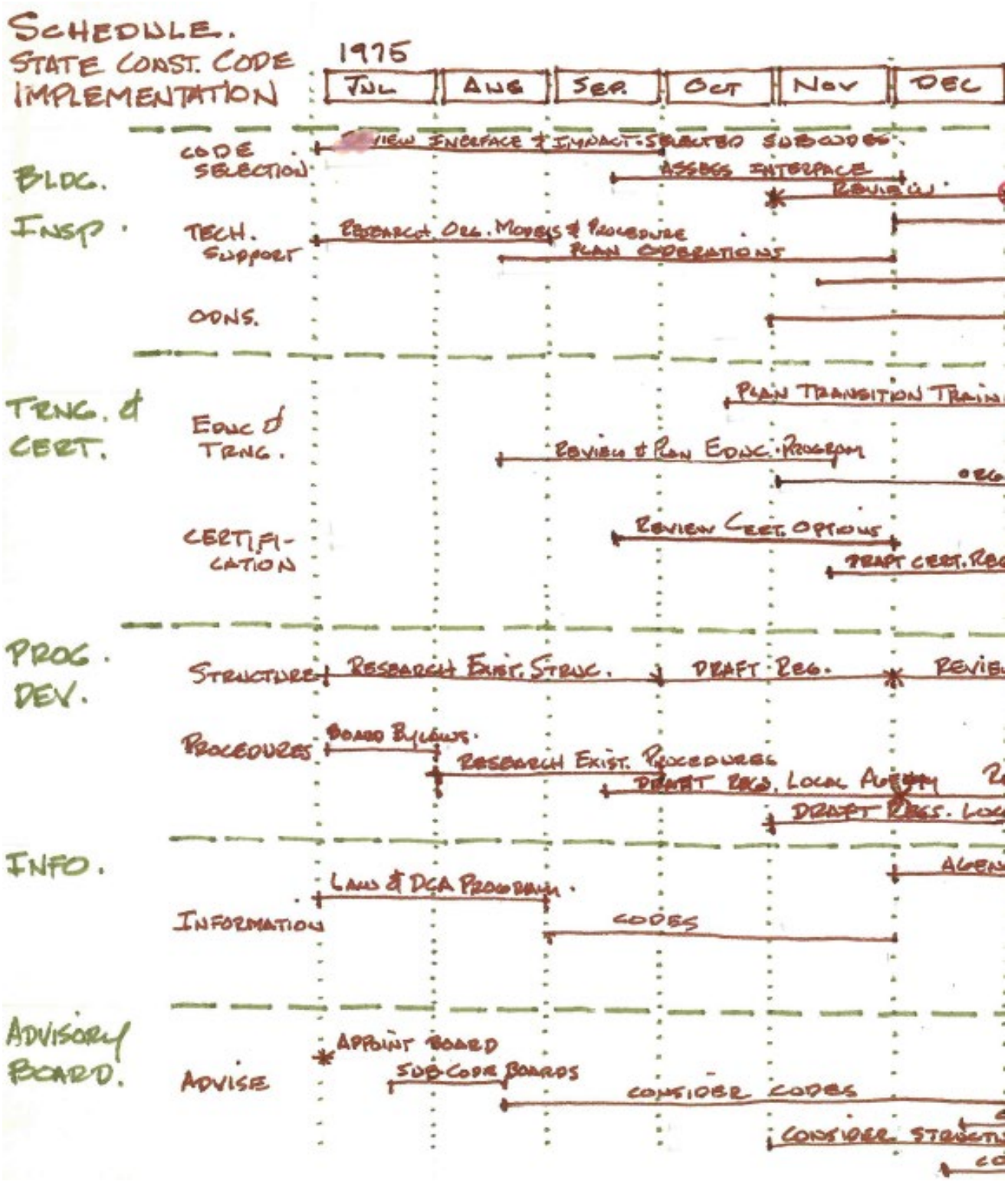
The Construction Code Communicator is an online publication of the New Jersey Department of Community Affairs' Division of Codes and Standards. It is typically published four times a year.

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

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

(The UCC Act at 50)



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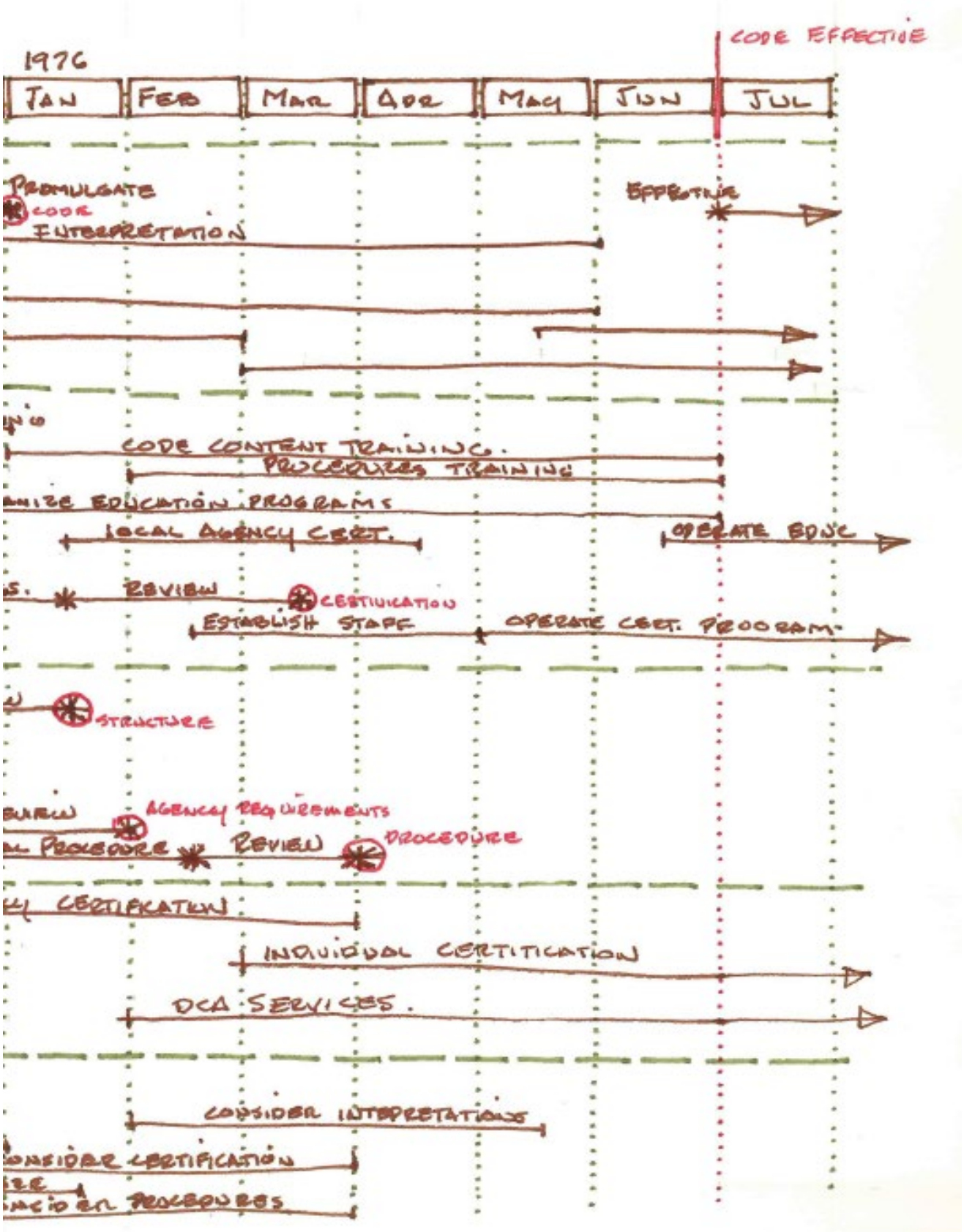
(The UCC Act at 50)



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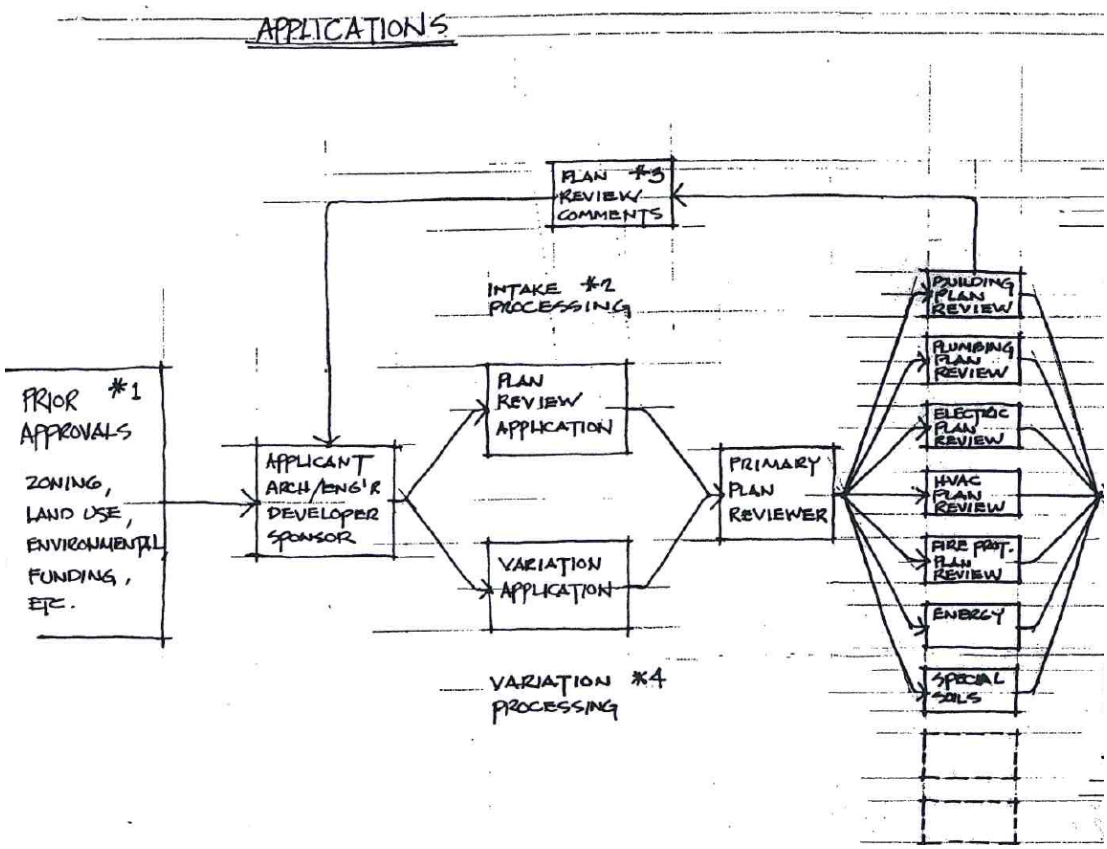
(The UCC Act at 50)



(The below is an abridged and edited version of an article William M. Connolly wrote more than 30 years ago. It was published in a construction industry magazine to describe New Jersey's code enforcement system for a national audience.)

...

Simplifying Building Codes
Why New Jersey Scrapped Local and State Codes in favor of National Model Codes

Locally written building codes, by their nature, promote duplication and non-uniformity and detract from timeliness and predictability. A better choice is based on national model codes and a strong working partnership between levels of government. In New Jersey, local and State officials have formed a partnership that has gone a long way toward providing an open, responsive, timely, predictable and effective regulatory system.

Reliance on national model codes establishes a framework that makes possible several desirable characteristics, beginning with timeliness and predictability. Because the model codes are the product of associations of public sector enforcement experts working in conjunction with private sector standards and testing systems, they also serve as valuable referees on maintaining a fair balance between public health and safety on one hand and costs on the other. The organizations promulgating these codes provide the soundest of technical and safety foundations for a building regulatory program. No state, county or local government can sustain, or as a practical matter will sustain, comparable code research and writing for very long. Even where the effort can be sustained, the wisdom of expending taxpayers' money to develop what is already available is questionable. Adopting national model codes has an additional benefit. With an accessible, reliable national organization handling codes and standards, local officials can devote their attention to implementation issues, such as efficient administration, effective enforcement and continuing education.

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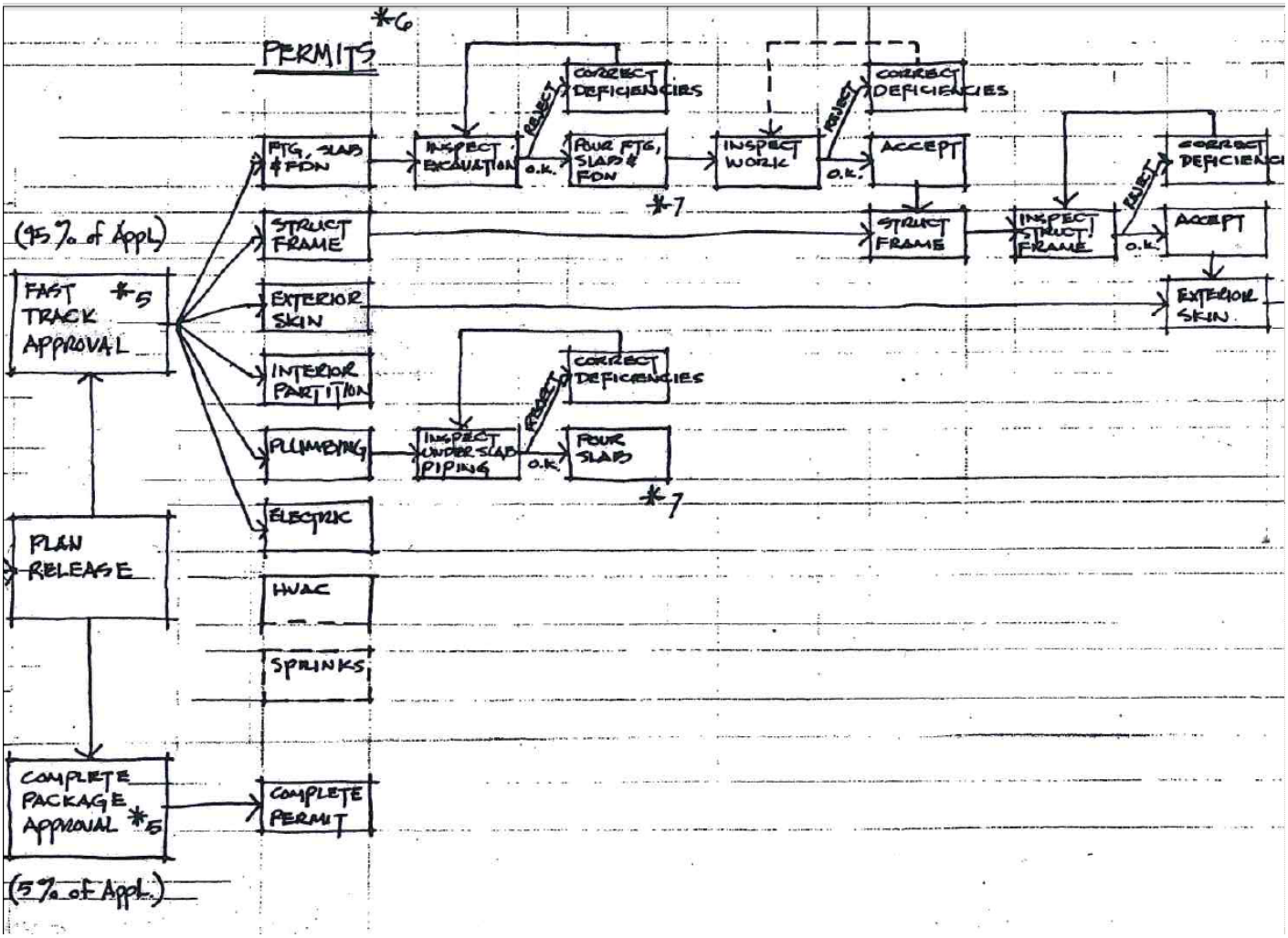
(The UCC Act at 50)



No public agency in New Jersey writes the technical provisions of construction codes. Instead, New Jersey adopts national model codes by reference. We do not amend these codes at the State or local level. We have adhered to this policy without exception since January 1, 1977. On that day, New Jersey swept away a web of confusion and duplication and implemented the Uniform Construction Code (UCC.) There is no question in my mind that the citizens of New Jersey are safer today because of it.

Because no code or code enforcement system is any better than the professionals who administer it, we seek to promote the technical competence and ethical integrity of the profession through the following enforcement principles:

- **Licensing of code enforcement professionals.** Every construction official, subcode official and inspector must be licensed the Department of Community Affairs. The UCC provides for separate technical licenses for each discipline.
- **Plan review system.** The UCC provides for levels of licensure. If a project is proposed in a municipality without adequate licensing, the plans are reviewed by the State. When released, the plans then serve as the basis for inspections by local officials.
- **Tenure of officials.** While New Jersey has a strong tradition of civil service protection for public employees, include code enforcement employees, about half of our towns do not offer civil service protection. In those towns, code officials are appointed for four-year terms. A second appointment brings tenure. This kind of protection is necessary if we expect code officials to carry out their responsibilities professionally.

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(The UCC Act at 50)

- **Professional accountability.** When technical incompetence, dishonest conduct or failure to maintain adequate public records are found, New Jersey takes action, include the ability to suspend or to revoke the license of the official involved.
- **Conflict of interest.** One cannot be involved in the construction industry and properly regulate it. The UCC contains strong provisions limiting the outside employment of code officials.
- **Code variations.** Literal application of even the best code will sometimes prove impractical. Rather than relying on variance boards, the UCC empowers subcode officials to judge written variation requests on life-safety equivalence criteria.
- **Professional Responsibility.** Each of the subcode disciplines has clear and distinct responsibilities. All necessary enforcement activities must be approved by officials with appropriate licenses.
- **Administrative civil penalties.** In some situations, traditional enforcement resources, such as stop-work orders or withholding a certificate, become inadequate. Uncorrected violations are civil matters, with violators subject to administrative assessment of civil penalties. Unpaid penalties are subject to summary civil collections proceedings just as any other debt would be.
- **Fee-supported enforcement.** The Uniform Construction Code requires that enforcement be self-supporting through user fees. The construction industry in New Jersey has acknowledged that it is far better to pay realistic fees than to suffer the financial consequences of delay and confusion resulting from inadequately funded enforcement.
- **Education and training.** The education and training that support the design professions and the construction industry do not provide satisfactory background in codes, standards o code enforcement. New Jersey created extensive education and training programs. These include approved courses which provide the prerequisite instruction for licensing test and continuing education required during each cycle to meet license renewal criteria. This extensive education and training effort is supported by a small surcharge levied on most permits.

This, then, is the “state of the art” regarding construction code enforcement in New Jersey. Our approach has been based on national model codes and a strong working partnership between the State and local officials. I am convinced that we have made our State safer through this system characterized by timeliness, predictability and professionalism.

…

UCC Summary of Rule Changes – Fall 2024 Update

November 18, 2024, *New Jersey Register*

N.J.A.C. 5:23-2.15, 2.15A, 2.15B, 4.5, 4.12, 4.14, and 4.22 – This adoption incorporates the requirements of P.L. 2021, c. 70, which sets forth that all municipalities in the State of New Jersey have the ability to accept construction permit applications electronically. The requirements of the Law charged the Department with developing the Electronic Permit Processing Review System (NJEPPRS) to facilitate and standardize submissions. The proposed amendments and new rules establish the functions of the NJEPPRS and, by extension, other systems that local enforcing agencies may elect to use in lieu thereof. In addition, the proposed amendments and new rules establish fees to fund the implementation of the NJEPPRS.

→ for more information, please see “November 06, 2023” row at
https://www.nj.gov/dca/codes/codreg/rule_proposals_adoptions.shtml

Source: Ian Rayfield
Code Development Unit
(609) 984-7609

2024 Division Proposals and Adoptions

The following is a list of the 2024 proposals and adoptions. This list, with previous years included, can be found at https://www.nj.gov/dca/codes/codreg/index.shtml by scrolling to "Rule Proposals and Adoptions" and clicking "Division Related Rule Proposals and Adoptions."

Posted in NJ Register	Subject	Submit Comments by:	Adoption Date
Dec 02, 2024	Uniform Construction Code Proposed Amendments: N.J.A.C. 5:23-3.21	Jan 31, 2025	
Nov 04, 2024	Uniform Construction Code Proposed Amendment: N.J.A.C. 5:23-2.18	Jan 03, 2025	
Sep 16, 2024	Uniform Construction Code Proposed Amendments: N.J.A.C. 5:23-2.7, 2.14, 2.15, 2.17A, 2.18, 3.4, 3.14, 3.15, 3.16, 3.20, 3.21, 3.22, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, and 6.32	Nov 15, 2024	
Aug 19, 2024	Notice of Administrative Corrections (2) Uniform Construction Code N.J.A.C. 5:23-3.14, 3.17, 3.18, 3.20, 3.21, 4.18, 4.19, 4.20, 5.2, 5.4, 5.5, 5.21, 6.3A, 6.6, 6.7, 6.8, 6.9, 6.21, 6.31, 12A.3, 12A.4, 12A.5, and 12A.6	N/A	Aug 19, 2024
Aug 05, 2024	Notice of Administrative Correction Uniform Construction Code N.J.A.C. 5:23-3.2 and 5.3	N/A	Aug 05, 2024
Jul 15, 2024	Notice of Readoption Landlord-Tenant Relations Readoption: N.J.A.C. 5:29	N/A	Jul 15, 2024
Jul 15, 2024	Notice of Readoption State Housing Code Readoption: N.J.A.C. 5:28	N/A	Jul 15, 2024
Jul 15, 2024	Notice of Readoption Standards for Licensure of Residential Health Care Facilities Readoption: N.J.A.C. 5:27A	N/A	Jul 15, 2024
Jul 15, 2024	Notice of Readoption Condo, Fee Simple, Cooperative Conversion, and Mobile Home Retirement Readoption: N.J.A.C. 5:24	N/A	Jul 15, 2024
Jul 15, 2024	Notice of Readoption Lead Hazard Evaluation and Abatement Code Readoption: N.J.A.C. 5:17	N/A	Jul 15, 2024

(Continued on next page)

(2024 Division Proposals and Adoptions)

Posted in NJ Register	Subject	Submit Comments by:	Adoption Date
Jul 01, 2024	Notice of Readoption Regulations Governing Rooming and Boarding Houses Readoption: N.J.A.C. 5:27	N/A	Jul 01, 2024
Jul 01, 2024	Notice of Readoption Liquefied Petroleum Gas Readoption: N.J.A.C. 5:18	N/A	Jul 01, 2024
Jul 01, 2024	Notice of Readoption Proprietary Campground Facility Health and Safety Standards Readoption: N.J.A.C. 5:10A	N/A	Jul 01, 2024
Feb 20, 2024	Notice of Administrative Correction Uniform Construction Code N.J.A.C. 5:23-11.1	N/A	Feb 20, 2024

Source: Ian Rayfield
Code Development Unit
(609) 984-7609

UCC Partial Permit

(Updated reprint from Fall 1990)

The Code Assistance Unit has been receiving an increasing number of questions regarding N.J.A.C. 5:23-2.16(g) on "Approval of Part," particularly from permit applicants. Many inquiries focus on whether construction officials have the authority to refuse partial permits at their discretion.

The answer is a clear "No." According to N.J.A.C. 5:23-2.16(g), "The construction official shall issue a permit for the construction of a foundation or any other part of a building or structure before the entire plans and specifications for the whole building or structure have been submitted, provided adequate information and detailed statements have been filed complying with all the pertinent requirements of this code. "The use of "shall" rather than "may" in the regulation limits the official's discretionary power. Thus, a partial permit can only be denied if the applicant fails to submit adequate information and detailed statements in compliance with the code, not because the official finds it burdensome or prefers not to issue partial permits.

Another common error by officials issuing partial permits is allowing work to proceed without required prior approvals, often due to a misunderstanding of the following clause: "The holder of such permit for the foundation or other part of a building or structure shall proceed at his own risk with the building operation and without assurance that a permit for the entire structure will be granted." This statement does not grant permission for partial permits to be issued without securing prior approvals; only the agency responsible for such approvals can authorize them.

In summary, officials cannot refuse to issue partial permits as a matter of personal preference. When issuing these permits, they must also ensure that all necessary prior approvals are in place. For more information, see Bulletin 94-4, https://www.nj.gov/dca/codes/publications/pdf_bulletins/b_94_4.pdf.

Source: Adam Matthews
Code Assistance Unit
(609) 984-7609

When is a Demolition Permit Required?

(Updated reprint from Fall 2001)

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.

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

Modular Construction Permits: What Needs to be Submitted? – Updated

(Updated reprint from Spring 2014)

Regardless of the number of articles that have been published on this topic, there still seems to be some confusion regarding exactly what must be submitted for the placement of modular construction on a site.

As I am sure you are all aware, as Construction Officials and subcode officials, we have no jurisdiction over the "box." The "box" is that which is constructed in the factory and delivered to the site. All that is required to be submitted for the "box" is a set of schematics, that is, floor plans and elevations that are NOT required to be signed and sealed by a design professional but are required to be stamped by the third-party inspection company.

Additionally, a set of installation instructions for the "box" is also required to be submitted. As with the schematics, these documents are NOT required to be signed and sealed by a design professional, but they too are required to be stamped by the third-party inspection company.

Lastly, all site work that is NOT included in the installation instructions needs to be submitted. This is where it gets tricky! Typical site work includes the foundation system and utility hookups. However, any other work that is being performed on-site that is not included in the installation instructions must also be submitted. This could include garages, porches, and decks. Unlike the other documents, the site work documents MUST be signed and sealed by a NJ licensed design professional.

> Note: According to UCC/Bulletin 07-1 on Premanufactured Construction, https://www.nj.gov/dca/codes/codreg/ucc.shtml), users are directed to the relevant sections of either the Uniform Construction Code (UCC) or the Uniform Administrative Procedures (UAP). Information on local enforcement, document filing, inspections, and the issuance of Certificates of Occupancy (CO) can be found in Part IV, Section 6, Local Enforcement Agency Procedures and Inspection, of the UAP, which is part of the Industrialized Buildings Commission (IIBC) regulations (N.J.A.C. 5:23-4A.7). New Jersey currently follows the 2018 edition of the UAP. To view the 2018/UAP, please visit IIBC's website at https://interstateibc.org/ (under the "codes and regulations" tab, select "Forms and Regulations").

Should you have any questions, please feel free to contact the Code Assistance Unit at codeassist@dca.nj.gov or by phone at (609) 984-7609.

Source: Keith Makai
Code Assistance Unit
(609) 984-7609

Private Garages Below Living Spaces

(Updated reprint from Spring 2001)

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 406.3.1 of the 2021 International Building Code (Building Subcode) and Section R302.6 of the 2021 International Residential Code (One- and Two-family Dwelling Subcode), 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 One- and Two-family Dwelling 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 and One- and Two-family Dwelling Subcode. FTO-13 provides examples of acceptable ways to meet the requirements of the Building Subcode and One- and Two-family Dwelling 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.

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

Interior Finish Requirements for Bathroom Partitions

The Code Assistance Unit has received several inquiries recently regarding the interior finish requirements for high-density polyethylene (HDPE) and polypropylene (PP) bathroom partitions. According to Section 803.9 of the 2021 International Building Code (IBC), these materials are subject to the provisions outlined in Section 803.1.1, which requires interior wall and ceiling finish materials to be tested in accordance with NFPA 286. Furthermore, Section 803.1.1.1 specifies the acceptance criteria for this testing.

A common question we've received is whether toilet room privacy partitions are classified as interior wall finishes. Based on the definition below of *Interior wall and ceiling finish*, toilet room privacy partitions fall under this category.

However, it has come to our attention that many HDPE and PP bathroom partitions fail to meet NFPA 286 compliance, an issue often discovered during final inspections. This article serves as a reminder to code officials and designers to verify the compliance of toilet partition materials during the plan review phase or at the time of submission to avoid complications later.

> INTERIOR WALL AND CEILING FINISH. The exposed interior surfaces of buildings, including but not limited to; fixed or movable walls and partitions; toilet room privacy partitions; columns; ceilings; and interior wainscoting, paneling or other finish applied structurally or for decoration, acoustical correction, surface insulation, structural fire resistance or similar purposes, but not including trim.

Source: Adam Matthews
Code Assistance Unit
(609) 984-7609

Clarifying Sections R402.4.1.1 and R402.4.6 of the 2021 IECC: Should Electrical and Communication Boxes Be Sealed?

The 2021 International Energy Conservation Code (IECC) has created some confusion about when electrical and communication boxes need to be sealed, particularly with the requirements in Sections R402.4.1.1 and R402.4.6. Let's break these sections down to clarify their intent and application.

Section R402.4.1.1: Building Thermal Envelope Installation

This section emphasizes the importance of a properly sealed building thermal envelope to limit air infiltration, which reduces energy loss and improves overall building efficiency. A **blower door test** is required to ensure compliance with air leakage standards. This section requires the installation of a continuous air barrier as a general requirement in Table R402.4.1.1. Any penetration in the building envelope must be thoroughly sealed during the construction process.

The section references Table R402.4.1.1, which outlines specific air barrier and sealing requirements for various components. This section requires the installation of a continuous air barrier as a general requirement in Table R402.4.1.1. Any penetration in the building envelope must be thoroughly sealed during the construction process. For electrical and communication boxes on exterior walls, the table specifies:

- "The air barrier shall be installed behind electrical and communication boxes. Alternatively, air-sealed boxes shall be installed."

This means that if the air barrier (e.g., house wrap) remains intact and unpenetrated, there is no need to seal around the outlet boxes or install air-sealed boxes. However, if the air barrier is breached—for example, when an exterior recessed outlet box requires notching of the sheathing or house wrap—proper sealing or the use of air-sealed boxes becomes mandatory to maintain the envelope's integrity.

Section R402.4.6: Air-Sealing Electrical and Communication Outlet Penetrations

For starters, Section R402.4, Air leakage, states "the building thermal envelope shall be constructed to limit air leakage in accordance with the requirements of Sections R402.4.1 through R402.4.5." As you can see, Section R402.4.6 was purposely left out since this section has nothing to do with air barrier penetration. Section R402.4.6, part of the broader air leakage requirements in Section R402.4, focuses on sealing penetrations of the building thermal envelope between conditioned and unconditioned spaces. However, it's important to note that this section does not apply to air barrier penetrations as addressed in R402.4.1.1.

The term unconditioned space is not explicitly defined in the I-Codes, but according to ASHRAE 90.1-2019, it defines unconditioned space as "an enclosed space within a building that is not a conditioned space or a semiheated space. Examples include crawlspaces, attics, and parking garages with natural or mechanical ventilation." Importantly, the exterior of an exterior wall is not considered an unconditioned space under this definition because the definition states "within." An example of where R402.4.6 applies is a habitable attic kneewall that serves as part of the building thermal envelope. In this case, the kneewall separates conditioned space on one side from unfinished, unconditioned space on the other.

In summary, just because an outlet box is part of the building thermal envelope does not automatically mean that air-sealed boxes or additional sealing measures are required. The determining factor lies in whether the air barrier is penetrated or if the penetration occurs between conditioned and unconditioned spaces. Fortunately, the 2024 IECC has cleaned up the code language to both of these sections.

Source: Adam Matthews
Code Assistance Unit
(609) 984-7609

Department Notice to Electrical Subcode Officials on Meter Collar Adapters

State of New Jersey
DEPARTMENT OF COMMUNITY AFFAIRS
101 SOUTH BROAD STREET
PO BOX 802
TRENTON, NJ 08625-0802

PHILIP D. MURPHY
Governor

TAHESHA L. WAY
Lieutenant Governor

JACQUELYN A. SUÁREZ
Commissioner

October 10, 2024

Dear Electrical Subcode Official:

This letter is intended as guidance for local enforcing agencies regarding the acceptance of products that fall within the category of "Meter Accessories" or more commonly known as Meter Collar Adapters.

The regulations allow for the approval of new products "consistent with the reasonable requirements for the health, safety and welfare of occupants or users of buildings and structures" (N.J.A.C. 5:23-1.3). The Department has determined that these products do not compromise the intent of this section.

Electrical subcode officials are instructed to approve these products provided they meet all the following criteria:

- Product has a valid nationally recognized testing laboratory (NRTL) listing/certification.
- Has been approved by the providing utility company.
- Product has been installed per manufacturer's installation instructions.
- If a pressure connector is involved as part of the installation instructions method, such connector shall meet the requirements of article 230.46 of the electrical subcode, 2020 National Electrical Code (NEC).
- Ensure that the overcurrent protection device (OCPD) meets or exceeds the available fault current at its terminals.
- Shall be identified as required by the electrical subcode in accordance with articles 705 and 706, as applicable.

Should you require further guidance, please contact the Code Assistance Unit at (609) 984-7609.

Sincerely,

Edward M. Smith
Director
Division of Codes and Standards

Source: Code Assistance/Development Unit
(609) 984-7609

Emergency Disconnects

There still appears to be some confusion among code officials regarding when and how to inspect the emergency disconnects required by Article 230.85 of the 2020 National Electrical Code (NEC), as adopted as the Electrical Subcode.

First, let me reiterate that the 2020 NEC does not provide the application to the need for this disconnect in existing buildings; this is the duty of the Rehabilitation Subcode, N.J.A.C. 5:23-6. This led the DCA staff and the Electrical Subcode Committee to issue guidance (Spring 2023) stating that when all the service conductors/service entrance conductors and service equipment are replaced or upgraded simultaneously, it will trigger the need for the disconnect switch. The Code Assistance Unit frequently receives calls noting that code officials are requiring the switch to be installed when, in some cases, all that is being done is a replacement of a meter pan. This is causing a great deal of confusion for the contractors throughout the state.

My second point is in reference to how the load side of these switches are being wired – more specifically, the number of conductors required. We are regularly fielding calls in which code officials are mistakenly stating that the first overcurrent protection device (OCPD) must be the service disconnect. This is inaccurate. The NEC has taken great care to detail how these disconnects are labeled. Only one of these labels – "Service Disconnect, Emergency Disconnect" – requires the use of an additional conductor, the equipment grounding conductor (EGC), to comply with the code. Any other label that clearly states, "Not Service Disconnect," per 230.85(3), even though it may contain fuses or a circuit breaker, is not the service disconnect and does not require the use of an EGC. In these cases, the NFPA's intent was simply to provide a mechanism for first responders to de-energize the structure.

Labeling at the installer's discretion is NOT to be taken at face value. Labeling must be applicable. Try to imagine the service WITHOUT the emergency disconnect, would the service still be compliant? If so, then the emergency disconnect shall only serve as a mechanism to interrupt the service and shall be labeled "Emergency Disconnect, Not Service Equipment," and the interior panel is to be wired no differently than it was prior to the adoption of Article 230.85. However, if the service disconnect would be required to be outside, this switch can also serve as the emergency disconnect and the additional conductor would be needed to make the interior distribution panel a "subpanel," as well as the appropriate labeling.

I hope that this provides the additional clarity to enforce the Rehabilitation Subcode in a uniform fashion.

Source: Scott Borsos
Code Assistance Unit
(609) 984-7609

Surge Protective Devices

A brief note on the requirement for surge protective devices (SPDs). The Department has been made aware that the requirements found in Article 230.67 of the 2020 National Electrical Code (NEC), are not being enforced in a uniform fashion.

The article states that "all service supplying dwelling units shall be provided with a surge protective device."

Note: All services. This means that one- and two-family dwellings, as well as multifamily dwellings, are required to have SPDs installed.

Referencing the same article, parenthetical "D" states that "where service equipment is replaced, all of the requirements of this section shall apply." For rehab installations, this means if a service is upgraded or replaced, surge protection is required. For generator installs, the automatic transfer switch (ATS) is defined as new service equipment; thus, surge protection is required.

Source: Scott Borsos
Code Assistance Unit
(609) 984-7609

Department Notice to Construction Officials on PV Systems: Reprint

State of New Jersey
DEPARTMENT OF COMMUNITY AFFAIRS
101 SOUTH BROAD STREET
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CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

LORI GRIFA
Commissioner

July 23, 2010

Dear Construction Official:

Local code enforcement agencies are receiving an increasing number of applications for the installation of solar photovoltaic (PV) power generating equipment. With this influx of solar energy installations, there has been some confusion as to what constitutes an "electrical generating station" for purposes of determining whether this is an enforcement activity reserved to the State pursuant to N.J.A.C. 5:23-3.11. This letter is intended to clarify which installations should be submitted to the Department for review.

The operative question is whether the PV installation supplies electricity for a building or buildings on site and has net metering. (This is an arrangement through which any unused power generated by the solar panels is "sold" to the utility company.) The amount of electricity that may be generated by these PV installations is limited to the peak usage on the site. By contrast, PV installations that should be considered electrical generating stations for purposes of applying the above rule have no meters and no limits on the amount of power that may be generated. As with more traditional electrical generating stations, the electricity generated at the site is fed back into the grid for use elsewhere.

Should you have any questions, please feel free to contact the Code Assistance Unit at (609) 984-7609.

Sincerely,

Cynthia A. Wilk
Director
Division of Codes and Standards

c: Electrical Subcode Official

Source: Code Assistance/Development Unit
(609) 984-7609

When is Monitoring of Fire Service Water Supply Underground Gate Valves Required?

(Updated reprint from Fall 2018)

Simply put, there is no longer a requirement for monitoring underground gate valves regardless of ownership. Code revisions to the International Building Code/2021 (IBC/2021) removed the language for the monitoring of underground gate valves found at Section 903.4.1, exception 1, and added it to the supervision exceptions found at Section 903.4.

In addition to the change above, there were revisions to the code language of relocated Section 903.4. The IBC/2018 required monitoring for underground gate valves that were not provided by a municipality or public utility. The new language found at exception 8 of Section 903.4 of the IBC/2021 essentially removed the requirement for monitoring of all underground gate valves, including private underground gate valves. These revisions correlate with the requirements for underground gate valves of fire protection systems as found in the International Fire Code/2021, NFPA 13-19, NFPA 24-19, and NFPA 25-19.

Source: Keith Thedinga
Code Assistance Unit
(609) 984-7609

Compliant Smoke Alarm Locations = Happy Homeowners

There's been discussion amongst fire protection subcode officials about the challenge associated with having to fail a final inspection at a Group R-5 dwelling because the hardwired smoke alarms are found installed in unapproved/noncompliant locations. The relocation of hardwired smoke alarms to compliant locations after a new build or rehab project is complete is not only destructive to the home's interior finish, but also creates an undue hardship for the homeowner. Education and the approval of accurate building plans can help prevent such occurrences.

Electrical inspectors need not be proficient in the requirements of NFPA 72; however, electrical inspectors should be familiar with some of the basic installation requirements for smoke alarms found in NFPA 72-2019 at Section 29.11.3. In summary this section states that devices shall be installed per the manufacturer's listing and published instructions, and, unless specifically listed for the application, shall comply with requirements in Sections 29.11.3.1 through 29.11.3.4. Below are a few of the requirements that are most frequently found in violation during a final fire inspection:

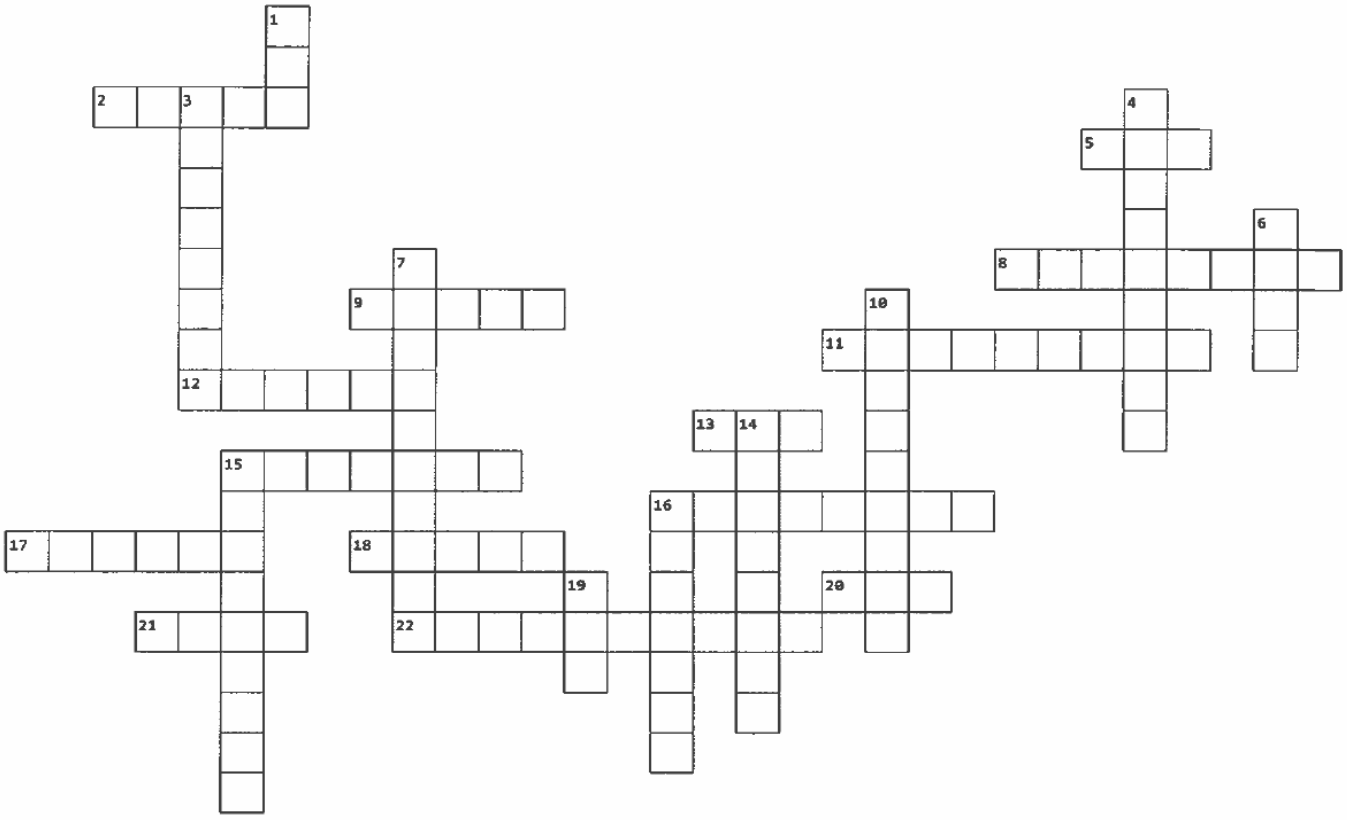
1. Smoke alarms or smoke detectors mounted on a peaked ceiling shall be located within 36 in. horizontally of the peak, but not closer than 4 in. vertically to the peak.
2. Smoke alarms or smoke detectors mounted on walls shall be located not farther than 12 in. from the adjoining ceiling surface.
3. Smoke alarms and smoke detectors shall not be installed within a 36 in. horizontal path from a door to a bathroom containing a shower or tub unless listed for installation in close proximity to such locations.
4. Smoke alarms shall not be installed within a 36 in. from the supply registers of a forced air heating or cooling system.
5. Smoke alarms shall not be installed within a 36 in. from the tip of the blade of a ceiling-fan.

Next, it is up to the fire protection subcode official to approve detailed and accurate building plans showing the exact locations of smoke alarms, and the types of smoke alarms to be used. Without accurate plans, the electrical boxes for smoke alarms may inadvertently be installed in locations which may be in violation of the requirements of the manufacturer's instructions and/or the requirements listed above.

Finally, although not mandatory, some building departments have implemented a courtesy inspection by the fire protection inspector to verify that the locations of the smoke alarm electrical boxes are compliant. The inspection is typically done during the same time the electrical inspector is conducting their rough electrical wiring inspection for the home.

Source: Keith Thedinga
Code Assistance Unit
(609) 984-7609

Winter Communicator Crossword



Across

2. Requirements for Group E uses found at N.J.A.C. 5:23-6.18.
5. The grace period in months following the operative date of a subcode revision.
8. The opening types found at Section 712 (2021/IBC).
9. The subcode provisions applicable to existing construction (abb.).
11. How the UCC is supposed to be enforced.
12. The type of system discussed in Bulletin No. 79-7.
13. A portion of land considered as a unit.
15. Minimum floor area (square feet) for a habitable room.
16. An increase in the footprint area of a building.
17. The restoration of broken components to a good condition.
18. The type of work requiring no plan review.
20. The more familiar name of NFPA 70 (abb.).
21. Every dwelling unit kitchen area shall be provided with one of these.

Source: Keith Thedinga
Code Assistance Unit
(609) 984-7609

22. Discipline responsible for the inspection of Section 907.3.4 (2021/IBC).

Down

1. The "red" book fire prevention officials use to maintain existing buildings (abb.).
2. A type of emergency overflow roof drainage.
3. Another name for an A-2 use dance hall.
6. The covered type of these found in Section 402 (2021/IBC).
7. The use group designation for a gas station.
10. Maximum height of a sprinklered B use building of type 1 construction.
14. The type of building maintenance that does not require a permit.
15. Type of automatic fire system associated with P2904.
16. The title of Section 404 of the IBC.
19. The Construction Code Element may issue one of these to clarify provisions of the adopted subcodes.

*See page 20 for answers.

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Source: Ian Rayfield
Code Development Unit
(609) 984-7609

Winter Communicator Crossword Answer Key

Across: 2. Basic; 5. Six; 8. Vertical; 9. Rehab; 11. Uniformly; 12. Septic; 13. Lot; 15. Seventy; 16. Addition; 17. Repair; 18. Minor; 20. NEC; 21. Sink; 22. Electrical

Down: 1. UFC; 3. Scuppers; 4. Nightclub; 6. Mall; 7. Mercantile; 10. Unlimited; 14. Ordinary; 15. Sprinkler; 16. Atriums; 19. FTO

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