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**February 2019**

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## Introduction

Welcome to the February 2019 OSFM Engineering Newsletter. Of particular note, refer to the clarification on Zone 3 insulation requirements, ResCheck, and ComCheck clarifications. Also refer to the education initiative article in the Education Section, particularly the link for an on-line orientation video of the training opportunities.

## Current Topics

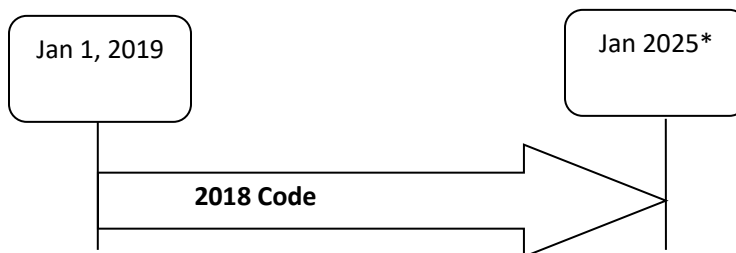
### Jan 1, 2019 Mandatory Effective Date

This is a reminder that the 2018 NC Building Code is mandatorily effective with all projects permitted starting Jan 1, 2019. As of January 1st, the overlap period was over.

### The 2018 NC Code (Except Electrical) Implementation Diagram

The 2018 NC Code is mandatorily required (effective) since Jan 1, 2019.

The following illustrates the timeline for the 2018 NC Building code. Electrical Code is not illustrated. This diagram will be removed from this section of the Newsletter after this newsletter edition.



**FIGURE 1: 2018 CODE TIME SPAN\***

- \*estimated, based on 6-year code cycle

## 2018 NC Codes Errata

With the release of the 2018 NC Building Codes, you may discover errors in the documents. If you discover an error, we would like to invite you to share it with our staff as we verify and document these discrepancies. We will then forward them to ICC or post them on our website dependent upon whether the correction is related to the base document or the NC amendments.

Errata is different from a desired code change. Errata are basically editing mistakes, such as dropped footnotes, references to code sections that got moved or misplaced, references to table or figures that are inaccurate, etc. Seemingly insignificant grammar changes that change the code meaning **would not automatically be considered errata**.

Please submit your corrections to the following contacts:

Carl Martin	Building	<a href="mailto:carl.martin@ncdoi.gov">carl.martin@ncdoi.gov</a>
Ali Kojoori	Residential	<a href="mailto:ali.kojoori@ncdoi.gov">ali.kojoori@ncdoi.gov</a>
Dan Dittman	Energy	<a href="mailto:Dan.Dittman@ncdoi.gov">Dan.Dittman@ncdoi.gov</a>
Dan Austin	Fire	<a href="mailto:dan.austin@ncdoi.gov">dan.austin@ncdoi.gov</a>
Vacant	Existing Building	<a href="mailto:carl.martin@ncdoi.gov">carl.martin@ncdoi.gov</a>
Bill Moeller	Plumbing	<a href="mailto:bill.moeller@ncdoi.gov">bill.moeller@ncdoi.gov</a>
Dan Dittman	Mechanical, Fuel Gas	<a href="mailto:dan.dittman@ncdoi.gov">dan.dittman@ncdoi.gov</a>
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Mike Page	Administrative	<a href="mailto:mike.page@ncdoi.gov">mike.page@ncdoi.gov</a>
Laurel Wright	Accessibility	<a href="mailto:laurel.wright@ncdoi.gov">laurel.wright@ncdoi.gov</a>

Current ICC Errata are posted at <http://www.iccsafe.org/cs/codes/Pages/errata.aspx>

Current (2012) NC Errata are posted at:

[http://www.ncdoi.com/OSFM/Engineering\\_and\\_Codes/Documents/2012\\_NCBuildingCode\\_amendments/Errata%20Central.pdf](http://www.ncdoi.com/OSFM/Engineering_and_Codes/Documents/2012_NCBuildingCode_amendments/Errata%20Central.pdf)

As soon as errata are identified, they will be posted to a site very close to the 2012 errata location. The reader can use the 2012 sheets as examples to what errata are vs. amendments.

## Clarification on Zone 3 Energy Code Requirements

We want to clear up an issue that is causing confusion for people in Zone 3 concerning the Energy Code. The amendment D-13 of the December 2017 Building Code Council meeting was approved by the Building Code Council, however, when it went to Rules Review, it received objections, so it was not made effective. See minutes from the March 2018 Building Code Council Meeting, and the excerpt below it. There has been no action taken on it since the objections were made, so it still is not effective. Unfortunately, it was posted to our website as being approved. Remember, approved D-items items are technically not effective until they pass through Rules Review.

Link to March BCC Minutes

[http://www.ncdoi.com/OSFM/Engineering\\_and\\_Codes/Documents/BCC\\_Minutes/2018%2003%2013~March%2013,%202018%20\(REVISED\).pdf](http://www.ncdoi.com/OSFM/Engineering_and_Codes/Documents/BCC_Minutes/2018%2003%2013~March%2013,%202018%20(REVISED).pdf)

## FIGURE 2: MARCH BCC MEETING MINUTES EXCERPT

### Item A – 4 Rules Review Commission Meeting Report

Barry Gupton reported that the December 2017 D-items were submitted to the RCC. Item D-13 received objections and are subject to OSBM review. All other items were approved. The 2017 NEC effective date is 6/12/2018.

We have removed the amendment and the energy code table it contained; and left a notice that addresses the issue of the Rules Review Objection. The correction has been posted. See the following link for details. If you go to the 18<sup>th</sup> page (about) you will see a page that reads similar to the snapshot shown in Figure 3.

#### Link to Approved Cumulative Amendments

[http://www.ncdoi.com/OSFM/Engineering\\_and\\_Codes/Documents/2018\\_NCBuildingCode\\_amendments/2018\\_NCBuildingCode\\_amendments.pdf](http://www.ncdoi.com/OSFM/Engineering_and_Codes/Documents/2018_NCBuildingCode_amendments/2018_NCBuildingCode_amendments.pdf)

## FIGURE 3: CLARIFICATION NOTICE FOR ZONE 3 ENERGY CODE AMENDMENT

2018 NC **Energy Conservation** Code  
R402.1.2, R402.1.4, R&U-Value Tables. (170613 Item B-13)

**The Agency withdrew this item due to RRC February 15, 2018 objection.**  
The Statutory authority for Rule-making is G. S. 143-136; 143-138.

We apologize for any confusion. The end result is the tables, as published in the 2018 Energy Code are to be used for code compliance.

### Energy Code – ResCheck and ComCheck Clarifications

This article is meant to clarify some of the issues concerning the energy code compliance paths for 2018. Although the insulation levels have not changed significantly from 2012, the addition of a new method, ERI method, and the reality of no NC-Specific ResCheck or ComCheck, has generated a lot of questions.

#### Commercial

Here are the Energy Code Compliance paths for Commercial Buildings:

**C401.2 Application.** Commercial buildings shall comply with one of the following:

1. The requirements of ANSI/ASHRAE/IESNA 90.1-2013<sup>1</sup>
2. The requirements of Sections C402 through C405. In addition, commercial buildings shall comply with Section C406 and tenant spaces shall comply with Section C406.1.1.
3. The requirements of Sections C402.5, C403.2, C404, C405.2, C405.3, C405.5, C405.6 and C407. The building energy cost shall be equal to or less than 85 percent of the standard reference design building.

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<sup>1</sup> The year is not shown in the first item in the code book; it is the 2013 version.

And, although not numbered, the fourth option is:

North Carolina specific ComCheck or ASHRAE 90.1-2013 ComCheck shall be permitted to demonstrate compliance with this code.

#### **Clarifications for Item #1**

If this pathway is chosen, it must be followed for both the thermal envelope and the trade-related items such as mechanical, electrical, and service water heating. One **cannot** use the thermal envelope requirements of ASHRAE 90.1-2013 and then the trade-related items (mechanical, electrical, service water heating) of the 2018 NC Energy Code.

#### **Clarifications for Item #2**

Sections C402 – C405 are what is called the prescriptive path. This may be the easiest and most straightforward method of compliance. This pathway includes the R-factor Table of C402.1.3, and the U-Factor Table C402.1.4. These tables are set up for element-by-element requirements. If one wishes to perform trade-offs between elements and stay within the prescriptive pathway, Section C402.1.5 must be used.

#### **Clarifications for Item #3**

This is the computer simulation, or performance path. There are mandatory minimum requirements that need to be met, and the Table for the inputs is Table C407.5.1(1).

#### **Clarifications for the Fourth, (unnumbered) item, North Carolina Specific ComCheck:**

There is not going to be a NC-specific ComCheck developed by US DOE<sup>2</sup> for the 2018 NC code cycle. However, there is an ASHRAE 90.1-2013 ComCheck available, and it is a valid compliance path. When using the ASHRAE 90.1-2013 standard, the entire standard needs to be used, including the thermal envelope and the trades, such as mechanical, electrical, service water heating, etc.

Also, designers have asked if the use of 2015 IECC (Commercial) ComCheck a valid alternate method. The answer is “yes”. Although not quite as stringent as the code-prescribed ASHRAE 90.1-2013, research by PNNL<sup>3</sup> showed it is within 1% of the results of the prescribed standard. When discussed with the Ad Hoc committee, the response was this is

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<sup>2</sup> Federal Register link concerning ResCheck and ComCheck Priorities

<https://www.govinfo.gov/content/pkg/FR-2014-03-18/pdf/2014-05952.pdf>

<sup>3</sup> Excerpt from PNNL Publication 24269 Rev 1, Appendix B

[https://www.pnnl.gov/main/publications/external/technical\\_reports/PNNL-24269Rev1.pdf](https://www.pnnl.gov/main/publications/external/technical_reports/PNNL-24269Rev1.pdf)

#### **Go to Appendix B, for the following summary:**

On a national average basis for all prototypes combined, the 2015 IECC and Standard 90.1-2013 are within 1% for both energy use and energy costs. The 2015 IECC has a national weighted EUI of 54.5

B.3 kBtu/ft<sup>2</sup>-yr while the corresponding number for Standard 90.1-2013 is 54.1 kBtu/ft<sup>2</sup>-yr. Likewise, the ECIs are very close between the 2015 IECC (1.31 \$/ft<sup>2</sup>-yr) and Standard 90.1-2013 (1.30 \$/ft<sup>2</sup>-yr).

adequate. If using the 2015 IECC standard in ComCheck, the entire standard needs to be used, including the thermal envelope and the mechanical, electrical, service water heating requirements, etc.

## **Residential**

Here are the Energy Code Compliance paths for Residential Buildings:

**R401.2 Compliance.** Projects shall comply with one of the following:

1. Sections R401 through R404
2. Section R405 and the provisions of Sections R401 through R404 labeled “Mandatory”
3. An energy rating index (ERI) approach of Section R406
4. North Carolina specific ResCheck shall be permitted to demonstrate compliance with this code. Envelope requirements may not be traded off against the use of high efficiency heating or cooling equipment. No tradeoff calculations are needed for required termite inspection and treatment gaps.

### **Clarifications for Item #1:**

Section R401 – R404 are what is called “the prescriptive path”. This pathway includes Tables R402.1.2 and Table R402.1.4.

Please note that Section R402.1.5 Total UA alternative is a **subsection of this compliance path**.

Tables R402.1.2 and Table R402.1.4 are element-by element requirements. If one wishes to perform trade-offs between elements, these tables are not set up for that. In order to do tradeoffs between elements, one must either use ResCheck (see discussion on that below) or Section R402.1.5 Total UA alternatives, or the Performance method of R405 or the ERI method of R406.

### **Clarifications for Item #2**

Section R405 is referred to as the “performance” section. The term “performance” is sometimes misused when referring to the U-factor table of R402.1.4 or ResCheck or Section R402.1.5 Total UA alternative. In reality, Section R405 is the “performance” section for the Residential energy code.

Section R405 typically involves a computer simulation that estimates the energy usage of the standard reference design and compares it to the desired proposed design. The rules for setting up the model are outlined in Table R405.5.2(1).

### **Clarification for Item #3**

Section R406 Energy Rating Index Compliance Alternate is new for NC in the 2018 NC code cycle. It is required to be field-verified by a registered design professional OR a certified HERS rater. There will typically be an up-front checklist at the beginning of the project, and this inspection checklist will be updated to the actual built conditions during and at the end of the project. The code official would not be adding any inspections for this code path; only the insulation inspection as outlined in the administrative code; the HERS rater or design professional would be performing inspections as required by the project.

The software to do this analysis needs to be compliant with ANSI RESNET ICC Standard 301-2014, as listed in R406.6.1. NC DOI will be posting general inspection checklists that will aid the contractor and code officials in performing the tasks of R406.6.2. They are written and are currently being reviewed by the Building Code Council.

### **Clarification for Item #4.**

As many have heard, there will not be a NC-Specific ResCheck for the 2018 NC energy code <sup>4</sup>. Please refer to footnote and its associated link for further information on the topic.

Since there will not be a NC-specific ResCheck, many designers have asked if it is acceptable to use the IECC 2015 Residential tab for demonstrating compliance. As an alternate method, the answer is “yes”, they can use the 2015 IECC (Residential) ResCheck for the building envelope values, and then follow the installation standards in the 2018 NC Energy code, such as the required air sealing and duct performance measures.

Please note there are some elements of the 2015 IECC that are more stringent than the 2018 NC Energy Code, so the user should familiarize themselves with the requirements before committing to it. The code official would still be looking for the envelope to “pass” under the 2015 IECC guidelines, and there is not a way to provide a work around for something other than a “pass” at this time.

### **General observations for ResCheck and ComCheck**

Statistics are not kept as to how many people used ResCheck or ComCheck. However, in the Modular industry, and the Log Home industry, the use of these was very high, the term “everyone” has been used from some builders. Designers are encouraged to consider the prescriptive route, as it is the most straight-forward and may offer the lowest implementation cost. You can utilize ResCheck as a calculator to determine U-factors for some wall assemblies. For instance, there is a good calculation procedure, and back up data in the user’s manual for ResCheck when calculating the U-factor of log walls. However, make sure you choose a very large wall (1000 SF, nominal), as otherwise you will encounter some round off issues that will skew the results. Remember, you are not trying to use ResCheck as a trade-off tool, but only as a tool to determine the U value of a given wall assembly. It will not work for all conceivable assemblies; only the ones in the internal library. Refer to ResCheck documentation for further information, available on the US DOE website. Similar logic applies to ComCheck. Some calculation methods do get added or updated, so use the most recent version, as the ASHRAE 90.1 metal building tables especially were updated to better reflect the actual u-values of the field assemblies.

## **Recurring Articles**

### **Building Code Council Approved Rule Changes**

The December Building Code Council meeting was postponed due to inclement weather. A meeting was set up instead for January 28<sup>th</sup>. At this January 28<sup>th</sup>, 2019 Building Code Council meeting, there were 11 D-Items and all 10 of these were adopted. Please refer to the following link to review the list of D-Items from the January 2019 Building Code Council Meeting:

**BCC Meeting Agenda-January 2019 (Minutes will be published online in March)**

[http://ncdoi.com/OSFM/Engineering\\_and\\_Codes/Documents/BCC\\_Agendas/2018%2012~January%2028,%202019\\_.pdf](http://ncdoi.com/OSFM/Engineering_and_Codes/Documents/BCC_Agendas/2018%2012~January%2028,%202019_.pdf)

Assuming the January BCC-approved D-Items are approved by the Rule Review Commission, the adopted rules will be placed on the NCDI Engineering website. The compilation of previously approved rules is located in the document “**2017-2019 Approved Cumulative Amendments (Effective 1/1/2019)**” document. Previously approved amendments that had an effective date of January 1, 2017 or earlier can be found in the document “**Accumulative Supplement to the 2012 NC Building**

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<sup>4</sup> \*Federal Register link concerning ResCheck and ComCheck Priorities

<https://www.govinfo.gov/content/pkg/FR-2014-03-18/pdf/2014-05952.pdf>

**Code**". This document contains all amendments from 2012, 2013, 2014, 2016, and 2017 and are posted in this single document.

2017-2019 Approved Cumulative Amendments (Effective 1/1/2019)

[http://www.ncdoi.com/OSFM/Engineering\\_and\\_Codes/Documents/2018\\_NCBuildingCode\\_amendments/2018\\_NCBuildingCode\\_amendments.pdf](http://www.ncdoi.com/OSFM/Engineering_and_Codes/Documents/2018_NCBuildingCode_amendments/2018_NCBuildingCode_amendments.pdf)

Accumulative Supplement to the 2012 NC Building Code links (still useful for research):

[http://www.ncdoi.com/OSFM/Engineering\\_and\\_Codes/Documents/2012\\_NCBuildingCode\\_amendments/2012-2017ApprovedCumulativeTest1Format.pdf](http://www.ncdoi.com/OSFM/Engineering_and_Codes/Documents/2012_NCBuildingCode_amendments/2012-2017ApprovedCumulativeTest1Format.pdf)

The full review of the June-approved code amendments is left to the reader, but **the titles of each item** are bulleted below. Please note the minutes may not be available on the DOI website until the next quarterly meeting in March 2019.

BCC Proposed Amendments-January 2019

- **Item D – 1 Request by William T. Noland P.E. representing Noland Construction Consulting, PLLC – Agent for Onslow County to amend the 2018 NC Building Code, Section 1704 Special Inspections as follows: (Remainder not shown for brevity) – proposal approved.**
- **Item D – 2 Request by Michael Rettie representing Orange County Inspections to amend the 2018 NC Residential Code, Section AM111.1 as follows: (Remainder not shown for brevity) – proposal denied.**
- **Item D – 3 Request by Randall Shackelford, P.E. representing Simpson Strong-Tie Co., Inc. to amend the 2018 NC Residential Code, Section AM109 as follows: (Remainder not shown for brevity) –proposal passed.**
- **Item D – 4 Request by Colin Triming, representing the NC Fire Code Revision Committee, to amend the 2018 NC Building/Fire Codes, Sections 915.1.1, 915.1.2, 915.1.3, 915.4.1 as follows: (Remainder not shown for brevity) – proposal passed.**
- **Item D – 5 Request by Colin Triming, representing the NC Fire Code Revision Committee, to amend the 2018 NC Mechanical Code, Sections 313.4.1.2, 313.4.1.3, 313.4.1.1, 313.4.4.1 as follows: (Remainder not shown for brevity) – proposal passed.**
- **Item D – 6 Request by Colin Triming, representing the NC Fire Code Revision Committee, to amend the 2018 NC Fuel Gas Code, Sections 311.4.1.1, 311.4.1.2, 311.4.1.3, 311.4.4.1 as follows: (Remainder not shown for brevity) -proposal passed**
- **Item D – 7 Request by Colin Triming, representing the NC Fire Code Revision Committee, to amend the 2018 NC Fire Code, Section 404.2.3 as follows: (Remainder not shown for brevity) – proposal passed**
- **Item D – 8 Request by Robert Privott, representing the NC Home Builders Association, to amend the 2017 NC Electrical Code, Article 210.8(A) Ground-Fault Circuit-Interrupter Protection for Personnel as follows: (Remainder not shown for brevity) – proposal passed**
- **Item D – 10 Request by Terry Cromer, representing the NC Association of Electrical Contractors, Inc., to amend the 2017 NC Electrical Code, Table 300.5 as follows: (Remainder not shown for brevity) – proposal passed**
- **Item D – 11 Request by David Smith, representing the Residential Ad-Hoc Committee, to amend the 2018 NC Residential Code, Sections R202, R305, R310, R328 as follows: (Remainder not shown for brevity) – proposal passed**



## Qualification Board Update

### Minutes

The minutes of the Qualifications Board Meeting Minutes are available at the following links:

#### Meeting Minutes and Agendas

[http://www.ncdoi.com/OSFM/Engineering\\_and\\_Codes/Default.aspx?field1=COQB\\_-\\_Minutes&user=Code\\_Officials\\_Qualification\\_Board&sub=COQB\\_Meeting](http://www.ncdoi.com/OSFM/Engineering_and_Codes/Default.aspx?field1=COQB_-_Minutes&user=Code_Officials_Qualification_Board&sub=COQB_Meeting)

Individuals wishing to provide feedback are encouraged to contact Kathy Williams at [Kathy.Williams@ncdoi.gov](mailto:Kathy.Williams@ncdoi.gov)

### Certification Status Verification

To maintain accurate records of code enforcement officials, please let us know when/if you leave employment as a code official or change employers. If you leave employment, please send the staff an email stating that you are no longer employed and include your last date of employment. We will make the appropriate changes to the status of your certificate. If you keep the certificate active but do not perform continuing education or pay fees by June 30, the certificate is automatically “suspended” and then possibly “revoked” which could require retesting.

If you transfer from one jurisdiction to another, we will need a certificate of employment form. This form is found online at

[http://www.ncdoi.com/OSFM/Engineering\\_and\\_Codes/Default.aspx?field1=CEO\\_Certification\\_Tools\\_USER&user=CEO\\_Certification\\_Tools](http://www.ncdoi.com/OSFM/Engineering_and_Codes/Default.aspx?field1=CEO_Certification_Tools_USER&user=CEO_Certification_Tools) in the Resources box. The form is filled out by the new employer and is signed by the director of inspections, city or county manager or clerk. The Fire Marshal is also allowed to sign the form. If you are submitting an application, you can upload the form into the application and submit at one time.

The NC Department of Insurance is required to maintain records of code officials to verify that inspection services are provided to all citizens in the State. Please take a moment to log in and check the status of your certificate(s). Please report any inaccuracies to the staff.

## Department Notes

### Engineering Department Personnel Notes

#### Energy Code Consultant

Dan Dittman, PE, has taken the role of the Energy Code Consultant. Dan has served as the backup to Billy Hinton during the previous code cycle, and is familiar with the requirements.

### New Code Interpretations, Guidance Papers, and Appeals Posted

Since the prior Newsletter, there has been the following web interpretations and guidance papers posted to aid the building owner, inspection, design professional, and construction personnel:

#### Code, Guidance, Appeals link:

[http://www.ncdoi.com/OSFM/Engineering\\_and\\_Codes/Default.aspx?field1=Code\\_Interpretations&user=State\\_Building\\_Codes](http://www.ncdoi.com/OSFM/Engineering_and_Codes/Default.aspx?field1=Code_Interpretations&user=State_Building_Codes)

## Interpretations

### Energy Code – 2018 Code

R402.4.1 - House Wrap Requirements for Energy Efficiency Provisions for Residential Building Thermal Envelope.doc

C501.1.1 - House Bill 201 Impact to the Application of the 2018 NC Energy Conservation Code.doc

C101.2 - Senate Bill 131 Impact to the Application of the 2018 NC Energy Conservation Code.doc

### Plumbing Code – 2018 Code

0403.6 - Double Occupancy Spaces Related to Plumbing Fixture Quantities.doc

## Guidance Papers

None since prior newsletter

These papers are to assist local jurisdictions on how NCDOT views a given law. These are not legal advice, but opinions. They are located under the table heading “SPECIFIC ACTIONS” in the Interpretations matrix.

The office is in the process of rolling over the still-pertinent 2012 interpretations into a new 2018 slot. Each 2012 interpretation will be reviewed to see if it is still relevant with the issuance of the 2018 code. If it is, then it will be rolled into the 2018 slot in the interpretation’s matrix.

## Formal Interpretations and Appeals

No formal interpretations or appeals since prior newsletter

Formal interpretations and Appeals are available in the interpretations link shown above. They are located under the table heading “SPECIFIC ACTIONS”.

## Cumulative Supplements

### 2017-2019 Approved Cumulative Amendments (Effective 1/1/2019)

Remember, refer to NC Administrative Code section **102.4 Effective date of rules**, and **102.5 Interim use of approved rules** for clarification of effective dates and the process for using approved rules prior to the effective date.

[http://www.ncdoi.com/OSFM/Engineering\\_and\\_Codes/Documents/2012\\_NCBuildingCode\\_amendments/2017-2019%20Approved%20Cumulative%20171212.pdf](http://www.ncdoi.com/OSFM/Engineering_and_Codes/Documents/2012_NCBuildingCode_amendments/2017-2019%20Approved%20Cumulative%20171212.pdf)

Please note the 2017-2019 amendments apply to the 2018 NC Code Cycle.

## Education Section

### **OSFM Engineering Division Programs – *Inspector Education FY 2018-2019***

The current Fiscal Year (FY) includes three (3) important education initiatives by the Engineering Division in support of the Building Code Council and Code Officials Qualification Board responsibilities respectively to “*maintain and train the code*”

1. Develop and provide education and training on the 2012 to 2018 changes in all books of the NC State Building Code. The primary classroom venue for this effort was the week-long **Code College** held in Hickory, NC December 3 – 7, 2018. Additional classroom presentations of this material will also be offered through partner industry and inspector associations in the coming months. Use the [FIND A CLASS](#) to search for scheduled courses.
2. Update **Standard Certificate** course slide presentations and worksheets to reflect the 2018 changes used by adjunct instructors in mandatory classroom courses taught through the NC Community College System. Students now have

access online to supplemental course materials 24/7 using their CEO ID# and password through the [Code College \(ONLINE\)](#). Some supplemental course activities are also designed to provide CE credit – whether or not you are attending the classroom course! For example, the Law & Administration supplemental course includes reference materials and a 25-question quiz worth one (1) hour CE credit in ANY trade.

3. Provide **Continuing Education (CE)** opportunities for CEOs in small departments with limited budgets who may not have the time or funds to travel to earn the six (6) hours of CE needed to renew their certificate(s). The six (6) hour 2018 Fire Code update course taught at the Code College, Hickory, is now also available online for free. Other courses are being added over the next several months. The goal is to have six (6) hours available in every trade.

Please note that the **Code College (ONLINE) Learning Management System (LMS)** is designed to credit CE automatically upon completion of all required activities AND completion of the Student Affirmation that the work was done by the student as required by Board Rule 11 NCAC 08 .0722(7) DISTANCE EDUCATION COURSES. A **Certificate of Completion** is automatically created in PDF format. CEOs are encouraged to take the opportunity to complete the Student Course Evaluation Survey available online as well. This is primary means for staff to receive suggests for improvement.

Please watch the online orientation training video through the link below and email [mike.hejduk@ncdoi.gov](mailto:mike.hejduk@ncdoi.gov) or [beth.williams@ncdoi.gov](mailto:beth.williams@ncdoi.gov) with your comments, questions or concerns.

Link to online tutorial of training

[http://www.ncdoi.com/OSFM/Engineering\\_and\\_Codes/Documents/COQB%20Online%20Code%20College%20Orientation\\_webversion%20-%20Presenter%20output/presentation\\_html5.html](http://www.ncdoi.com/OSFM/Engineering_and_Codes/Documents/COQB%20Online%20Code%20College%20Orientation_webversion%20-%20Presenter%20output/presentation_html5.html)

## **NC Building Code Training - Designers**

Please note the Code College Online for BOTH CE & Standard Course supplements. Designers can submit a pre-qualification app for \$20 they'll get a CEO ID # and can log in for CE credits with NCDOT OSFM as approved sponsor. PDF file of the completion certificate automatically generated.

## **NC Building Code Training**

The most up-to-date training schedule for all building codes are available at the following link:

[http://www.ncdoi.com/OSFM/Engineering\\_and\\_Codes/Default.aspx?field1=Code\\_Education\\_-\\_Student\\_Main&user=Code\\_Education\\_Resources](http://www.ncdoi.com/OSFM/Engineering_and_Codes/Default.aspx?field1=Code_Education_-_Student_Main&user=Code_Education_Resources)

Once the web page is accessed, click the “**FIND A CLASS**” button to refine your search. As always, please consider the use of the Standard Classes if you are a design professional, contractor, or code official, as they are an underutilized offering and are the primary source of code training in NC. They are, by design, the most thorough code training provided. One may also wish to consider taking a course (or two or three) in the Building or Fire code even if you do a trade, since the Building and Fire code goes into more depth on fire and smoke compartmentalization and rated walls, barriers, partitions, etc. and how they need to be protected. Starting in late November or December, the Standard Courses will be using the 2018 Code, so this is an excellent opportunity to both get the code updates and a more in-depth knowledge of the codes.

COCO Newsletters

[http://www.ncdoi.com/OSFM/Engineering\\_and\\_Codes/Default.aspx?field1=Code\\_Enforcement\\_-\\_COCO\\_Newsletters&user=Code\\_Enforcement\\_Resources](http://www.ncdoi.com/OSFM/Engineering_and_Codes/Default.aspx?field1=Code_Enforcement_-_COCO_Newsletters&user=Code_Enforcement_Resources)

<http://www.ncbia.org/>

<http://ncpia.us/>

<https://www.nc-mia.com/> (note new website address – formerly www.ncmia.com)

<http://www.ncfma.com/>

<http://www.nciaei.org/>

## Reminders and other Resources

### 2018 NC Code Online version

As reported in previous newsletter, the 2018 NC Code is available on-line for free viewing, but it does not have full functionality. Although there was, for a while, a 2012 free on-line code that is fully downloadable and printable, THERE ARE PRESENTLY NO PROVISIONS FOR MAKING THE 2018 CODE THIS WAY. The 2012 code can still be viewed on-line, but the printability went away at the end of 2018 as required by the contract.

### Ordering the 2018 NC Code – Discounted Code Books

To receive the on-line “members” purchasing discount, ANYONE can go through NC Department of Insurance Website, following this path:

1. [https://ncdoi.com/OSFM/Engineering\\_and\\_Codes/Default.aspx?field1=Codes - Code Book Sales&user=State Building Codes](https://ncdoi.com/OSFM/Engineering_and_Codes/Default.aspx?field1=Codes_-_Code_Book_Sales&user=State_Building_Codes)
2. After the Code Book Sales web page opens, press the “Purchase State Building Code On-line” hyperlink. See July 26, 2018 Engineering Newsletter for screen shots of webpages, or just go to the DOI website.
3. This is the web address that will take you to ICC’s webpage that has all the North Carolina Code Books. When you order from the site you are redirected to, you will receive the discount. **If you enter the ICC Webpage directly, you will not get the discount.**

There are several different links on the DOI website to get to “purchase codes” online. All of them link to the same place on the ICC website and the discount will be applied. Only one of the links is shown in this article. If you are on the ICC website, and back-out of the path, and then go back into the ordering process from within the ICC website, you may not get the discount. You may want to start over with the NCDOI website if you are not sure you are getting the members only discount.

## Accessibility Newsletters

This was reported on in a prior newsletter. There are many presentations and interpretations in the newsletters for Accessibility. They are available at the following link:

[http://www.ncdoi.com/OSFM/Engineering\\_and\\_Codes/Default.aspx?field1=Code Enforcement - Accessibility Update - Newsletters&user=Code Enforcement Resources&sub=Accessibility Update](http://www.ncdoi.com/OSFM/Engineering_and_Codes/Default.aspx?field1=Code_Enforcement_-_Accessibility_Update_-_Newsletters&user=Code_Enforcement_Resources&sub=Accessibility_Update)

The statements and views in these newsletters carry the same weight as a web interpretation. Many of them are case studies and may be project-specific, but they are generally covering a topic that can be applied to other similar buildings.

Please note the newsletter is for multiple years, and you want to make sure the issue you are researching is not superseded by a later edition. The issues are posted in chronological order (oldest at the top, newest at the bottom of the webpage). The volume # is simply referring to the sequence in which it was published and not an actual calendar year. Likewise, the Issue # is the sequential newsletter of that year and does not necessarily correspond to a month. Refer to Table 1 for details.

**TABLE 1: VOLUME AND ISSUE CROSS-REFERENCE TO CALENDAR YEAR**

Volume #, Issue #'s	Corresponding Year
Volume 1, Issue 1,2,3	2010, 3 Issues
Volume 2, Issue 1,2,3,4,5,6,7	2011, 7 issues
Volume 3, Issue 1,2,3,4	2012, 4 Issues
Volume 4, Issue 1,2,3,4	2013, 4 Issues
Volume 5, Issue 1,2	2014, 2 Issues
Volume 6, Issue 1,2	2015, 2 Issues
Volume 7, Issue 1,2,3,,,8	2016, 8 Issues
Volume 8, Issue 1,2,3,,,11	2017, 11 Issues
Volume 9, Issue 1,2,3,,,8..	2018, 8 issues to date

**From Volume 9, Issue 8**

- NCBC 1104.4 Exception 1 – Elevator Requirements
- ANSI 603.5-Baby-Changing Tables
- ANSI 502.4.1 Access Aisles
- NCBC 1109.8-R-2 Storage Follow-Up

**Titles From Volume 9, Issue 7 include:**

- NC Existing Building Code 705
- ANSI 406.12/.13/.14-Detectable Warnings as Skateboard Deterrents: NOT!
- NCBC 1109.2.8-Stages: Churches + Perf. Areas
- NCBC 1007.2 + Accessible Exits
- NCBC 1104.5-Location of Accessible Route

**End of Newsletter**