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Introduction
This is a special edition of the Engineering Newsletter, with a message to remind everyone the mandatory effective date of the 2018 Code is January 1, 2019 and several related items. Also refer to the summary of the CODE COLLEGE – HICKORY in the Education Section for more information available for training on the 2018 NC Building Code.

Current Topics
Jan 1, 2019 Mandatory Effective Date
This is a reminder that the 2018 NC Building Code is mandatorily effective on all permitted projects starting Jan 1, 2019. As of January 1st, the overlap period is over. Please contact your local jurisdiction for projects that are currently under review that may not meet the cut-off date.

Changes in Statutes Affecting the Lien Requirements for Permitting Manufactured Housing
There have been several changes in the permitting statute that relates to Manufactured Housing; or were changed in the recent legislative sessions that many may not be aware of and has led to some confusion. An excerpt of these changes and/or sections requiring clarification are shown below, in bold text and highlighted in yellow. For the full text of these statutes, go to www.ncleg.net.

The changes have led to some confusion regarding how to determine the $30,000.00 value for a manufactured home. Please see the highlighted sections of the Senate Bill 145 (Exhibit A) during the 2018 Session and the Statute 153A-357 (e) (Exhibit B) and 160A-417 (d) (not shown for brevity, contains same text as 153A-357), where it indicates that the purchase price of the manufactured home is to be excluded from the $30,000 threshold for the requirement to name a lien agent when procuring a permit.

In addition to the $30,000 threshold, there has been some concern regarding delays in procuring permits due to the requirement of a lien agent. A current certificate of title is no longer a requirement in the process. Senate Bill 145, which was ratified on 6/25/2018 changed NCGS § 153A-357 (e) and 160A-417 (d) to exclude the purchase of a manufactured home in determining the $30,000 cost of work requirement for a lien agent when procuring a permit. Since it has just recently been entered into the text of the statute of 153A-357 (e) and 160A-417 (d) that readers may not have been aware of this change. Attached is the current Senate Bill 145 and NCGS § 153A-357 (e) (Exhibit B) for your review. Statute 160A-417 (d) contains the same text.

Exhibit A

SENATE BILL 145
RATIFIED BILL

DEFINITION OF OWNER AND SECURITY INTEREST CLARIFICATIONS FOR MANUFACTURED HOMES
SECTION 16.3. (a) G.S. 20-58.4(e1) reads as rewritten:

2 | P a g e
"(e1) If the vehicle is a manufactured home, the owner may proceed in accordance with subsection (e) of this section or may, in the alternative, provide the Division with a sworn affidavit by the owner that the debt has been satisfied and that either:
(1) After diligent inquiry, the owner has been unable to determine the identity or the current location of the secured creditor or its successor in interest; or
(2) The secured creditor has not responded within 30 days to a written request from the owner to release the secured creditor’s security interest.

For purposes of this subsection, the term “owner” shall mean any of the following: i) the owner of the manufactured home; ii) the owner of real property on which the manufactured home is affixed; or iii) a title insurance company as insurer of an insured owner of real property on which the manufactured home is affixed."

SECTION 16.3. (b) G.S. 20-58.3A(g) reads as amended:
"(g) The Division shall not be subject to a claim under Article 31 of Chapter 143 of the General Statutes related to the renewal of the perfection of a security interest or the failure to acknowledge or give effect to an expired perfection of a security interest on a certificate of title for a manufactured home pursuant to this section if the claim is based on reliance by the Division on any application for renewal submitted to the Division by a third party pursuant to this section or based on the automatic expiration of a perfection of a security interest pursuant to this section."

SECTION 16.3. (c) This section becomes effective October 1, 2018.

CERTIFICATE OF TITLE REQUIREMENTS FOR IMPROVEMENT PERMITS FOR MANUFACTURED HOMES

SECTION 16.4. (a) G.S. 153A-357(e) reads as rewritten:
"(e) No permit shall be issued pursuant to subdivision (1) of subsection (a) of this section where the cost of the work is thirty thousand dollars ($30,000) or more, other than for improvements to an existing single-family residential dwelling unit as defined in G.S. 87-15.5(7) that the owner occupies as a residence, or for the addition of an accessory building or accessory structure as defined in the North Carolina Uniform Residential Building Code, the use of which is incidental to that residential dwelling unit, unless the name, physical and mailing address, telephone number, facsimile number, and electronic mail address of the lien agent designated by the owner pursuant to G.S. 44A-11.1(a) is conspicuously set forth in the permit or in an attachment thereto. The building permit may contain the lien agent’s electronic mail address. The lien agent information for each permit issued pursuant to this subsection shall be maintained by the inspection department in the same manner and in the same location in which it maintains its record of building permits issued. Where the improvements to a real property leasehold are limited to the purchase, transportation, and setup of a manufactured home, as defined in G.S. 143-143.9(6), for which there is a current certificate of title, the purchase price of the manufactured home shall be excluded in determining whether the cost of the work is thirty thousand dollars ($30,000) or more."

PART V. EFFECTIVE DATE

SECTION 17. Except as otherwise provided, this act becomes effective July 1, 2018.
In the General Assembly read three times and ratified this the 15th day of June 2018.

Exhibit B

Current Statute (Shown Below), now, reflect the new changes

§ 153A-357. Permits.
(e) No permit shall be issued pursuant to subdivision (1) of subsection (a) of this section where the cost of the work is thirty thousand dollars ($30,000) or more, other than for G.S. 153A-357 Page 3
improvements to an existing single-family residential dwelling unit as defined in G.S. 87-15.5(7) that the owner occupies as a residence, or for the addition of an accessory building or accessory structure as defined in the North Carolina Uniform Residential Building Code, the use of which is incidental to that residential dwelling unit, unless the name, physical and mailing address, telephone number, facsimile number, and electronic mail address of the lien agent designated by the owner pursuant to G.S. 44A-11.1(a) is conspicuously set forth in the permit or in an attachment thereto. The building permit may contain the lien agent's electronic mail address. The lien agent information for each permit issued pursuant to this subsection shall be maintained by the inspection department in the same manner and in the same location in which it maintains its record of building permits issued. Where the improvements to a real property leasehold are limited to the purchase, transportation, and setup of a manufactured home, as defined in G.S. 143-143.9(6), the purchase price of the manufactured home shall be excluded in determining whether the cost of the work is thirty thousand dollars ($30,000) or more.

Note: A “current certificate of title” is no longer required for permitting.

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

The 2018 NC Code is available and is shipping. Remember it is mandatorily effective Jan 1, 2019. Also, to receive the on-line “members” purchasing discount, ANYONE can go through NC Department of Insurance Website, following this path:


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.

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

The 2018 NC Code is mandatory Jan 1, 2019. The following represents the implementation time line.

![Diagram](Image)

**Figure 1: Adoption and Effective Dates**

**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 web site 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 | carl.martin@ncdoi.gov |
| Ali Kojoori | Residential | ali.kojoori@ncdoi.gov |
| Vacant | Energy | dan.dittman@ncdoi.gov |
| Dan Austin | Fire | dan.austin@ncdoi.gov |
| Vacant | Existing Building | carl.martin@ncdoi.gov |
| Bill Moeller | Plumbing | bill.moeller@ncdoi.gov |
| Dan Dittman | Mechanical, Fuel Gas | dan.dittman@ncdoi.gov |
| Joseph Starling | Electrical | joseph.starling@ncdoi.gov |
| Mike Page | Administrative | mike.page@ncdoi.gov |
| Laurel Wright | Accessibility | laurel.wright@ncdoi.gov |

Current ICC Errata are posted at [http://www.iccsafe.org/cs/codes/Pages/errata.aspx](http://www.iccsafe.org/cs/codes/Pages/errata.aspx)


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.

**Recurring Articles**

**Department Notes**

**Engineering Department**

**Personnel Notes**

Mr. Billy Hinton, PE has announced his retirement after 25 years of service to the Department of Insurance and to the State of North Carolina. Billy earned a BS in Mechanical Engineering from NC State University in 1981. He joined the NC Dept. of Insurance in June 1994 as Chief Mechanical Code Consultant. Billy has been instrumental in providing technical interpretations for the NC Energy, Mechanical, Fuel Gas, and Plumbing codes for many years. He has worked with the US Department of Energy on updating and improving the energy efficient requirements in the NC Energy Code. He has served on many ad hoc committees for the Regional Southern Building Code and worked with the NC Code Officials
Qualification Board on Exam Development Committees. He has also been Secretary to the North Carolina Mechanical Inspectors Association for many years, and his support of this organization provided many, many code officials with quality training in Mechanical, Fuel gas, Plumbing, and Energy codes.

To be succinct, he is an expert in his field, and his knowledge and professionalism will be missed, but we wish him lots of fun in his retirement.

**Code changes that will likely affect a high percentage of projects**

Each Chief Code Consultant was asked for a code change that will likely affect a high percentage of projects in the coming code cycle. The change may not be a major item but will likely affect a high percentage of the projects. Here is the list that was provided:

**Building Code**

There were several changes associated with classification of commercial kitchens. The text shown below that is underlined illustrates the changes. Some text is not shown for brevity.

- **303.3 Assembly Group A-2.**
  Group A-2 occupancy includes assembly uses intended for food and/or drink consumption including, but not limited to:
  - Banquet halls
  - Casinos (gaming areas)
  - Nightclubs
  - Restaurants, cafeterias and similar dining facilities (including associated commercial kitchens)
  - Taverns and bars

- **304.1 Business Group B.**
  Business Group B occupancy includes, among others, the use of a building or structure, or a portion thereof, for office, professional or service-type transactions, including storage of records and accounts. Business occupancies shall include, but not be limited to, the following:
  - Airport traffic control towers
  - **Ambulatory care facilities**
    - students above the 12th grade
    - Electronic data processing
    - Food processing establishments and commercial kitchens not associated with restaurants, cafeterias and similar dining facilities not more than 2,500 square feet (232 m²) in area.
  - Laboratories: testing and research
    - ... 

- **306.2 Moderate-hazard factory industrial, Group F-1.**
  Factory industrial uses that are not classified as Factory Industrial F-2 Low Hazard shall be classified as F-1 Moderate Hazard and shall include, but not be limited to, the following:
  - Aircraft (manufacturing, not to include repair)
  - Appliances
    - ... 
  - Electronics
  - Engines (including rebuilding)
  - Food processing establishments and commercial kitchens not associated with restaurants, cafeterias and similar dining facilities more than 2,500 square feet (232 m²) in area.
Mechanical

307.2.5 Drain line maintenance.
Condensate drain lines shall be configured to permit the clearing of blockages and performance of maintenance without requiring the drain line to be cut.

307.3 Condensate pumps.
Condensate pumps located in uninhabitable spaces, such as attics and crawl spaces, shall be connected to the appliance or equipment served such that when the pump fails, the appliance or equipment will be prevented from operating. Pumps shall be installed in accordance with the manufacturers’ instructions.

Fuel Gas

406.4.3 Test gauges.
Gauges used for testing shall be as follows:
1. Tests requiring a pressure of 10 pounds per square inch (psi) (69 kPa) or less shall utilize a testing gauge having increments of 0.10 psi (0.69 kPa) or less.
2. Tests requiring a pressure of greater than 10 psi (69 kPa) but less than or equal to 100 psi (689 kPa) shall utilize a testing gauge having increments of 1 psi (6.9 kPa) or less.
3. Tests requiring a pressure of greater than 100 psi (689 kPa) shall utilize a testing gauge having increments of 2 psi (14 kPa) or less.

Fire Code

Section 510 Emergency Responder Radio Coverage

510.1 Emergency responder radio coverage in new buildings. All new buildings shall have approved radio coverage for emergency responders within the building based upon existing coverage levels of the public safety communication systems of the jurisdiction at the exterior of the building. This section shall not require improvement of the existing public safety communication system.

(Sections 510.2 – 510.6 not shown for brevity) This code section was not included in the 2012 NC Fire Prevention code. It is part of the 2018 NC Fire Prevention Code.

Education Section

CODE COLLEGE – HICKORY Recap
The Engineering Department of OSFM recently completed a week-long “Code College” that took place Dec 3 – Dec 7, 2018. There were dedicated training days for each discipline that provided 6 hrs of con-ed credit that targeted the changes to the code that will appear in the 2018 NC Building code, plus bonus offerings in Law & Administration, and a 1-hr course concerning the Carbon Monoxide poisoning incident in Boone, NC several years ago.

Several of the courses, as time constraints allow, will be fully developed into on-line courses that can be taken for credit. The link for those classes will be published in a future newsletter.
NC Building Code Training
The most up-to-date training schedule for all building codes are available at the following link:


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.

The NC International Association of Electrical Inspectors has some classes coming up before the end of the year, and some stretching into early 2019. Please review the respective association websites, in addition to the NC DOI website for available training.

COCO Newsletters


http://www.ncbia.org/

See latest training schedule from NCBA at this link: http://www.ncbia.org/ncbia_2017_website_029.htm

http://ncpia.us/

http://ncmia.com/

http://ncfma.com/

http://www.nciaei.org/

January 10th, 2019 – Williamston; January 24th, 2019 – McLeansville

Reminders and other Resources

2018 NC Code Online version?
Although there is presently a 2012 free on-line code that is fully downloadable and printable, THERE ARE PRESENTLY NO PROVISIONS FOR MAKING THE 2018 CODE THIS FORMAT. This feature for the 2012 Codes will not be available after December 31, 2018 (downloadable, printable). There will be a limited capability version that will allow a viewer to look at the code, but the viewer will not be able to download, copy/paste, or print the code for free.

Reminder: Limited time only, Free 2012 NC Code Downloads Available
As noted in prior Engineering Newsletters, the Building Code Council and the NC Department of Insurance have negotiated for and achieved funding from the NC General Assembly for the offering of a free (free to the user) downloads of the 2012, 2014 and 2015 NC Building Codes. These codes are the fully downloadable and printable for a limited time courtesy of the Department of Insurance. The link to the codes is:

https://codes.iccsafe.org/public/collections/nc
The web page for ICC has changed quite a bit since the last newsletter, and it may be a little more difficult to locate the free downloads, but they are still available. In the new drop-down boxes, select the 2012 code and hit the search option to get to the 2012 codes. You may have to scroll down to find the codes.

Please take advantage of this limited time offer—it ends December 31, 2018 which is fast approaching. After December 31st, these codes will become read-only!

End of Newsletter