



PERMIT INFORMATION PACKET

**Caldwell County Building Inspections
2345 Morganton Blvd., SW, Lenoir, NC 28645
828-426-8585**

Table of Contents

Section 1 - Standard Inspections

Section 2 - Lien Information

Section 3 - Carbon Monoxide Alarms

Section 4 - Energy Certificate & Duct Test

Section 5 - Tracer Wire

Section 1 - Standard Residential Inspections

Temporary Electrical Service

Footing

Foundation

Slab

Rough-In (framing, electrical, plumbing, mechanical)

Fireplace

Insulation

Final (framing, electrical, plumbing, mechanical)

****Every project is different and some of these inspections may not apply.****

Section 2 – Lien Agent Info

Effective April 1, 2013, North Carolina law will require that an owner or their contractor appoint a lien agent when they first contract for improvements to real property.

How does this affect you?

If your new residential or commercial construction project costs \$30,000 or more, you must appoint a lien agent and provide this office with documentation of the appointment.

Exemptions:

- **Homeowners renovating or adding onto their existing home and not utilizing any sub-contractors.**
- **Mobile homes where the site prep is less than \$30,000.**
 - **Public buildings.**

For more info contact:

www.liensnc.com

1-888-690-7384

North Carolina Lien Agents

Title Insurance Company/Agency	Address	Contact	Phone #	Fax #	Email Address	Web Address
Chicago Title Company, LLC	19 W. Hargett St., Suite 507 Raleigh, NC 27601	Nancy Ferguson	1-888-690- 7384	1-919- 489-5231	support@liensnc.com	www.liensnc.com
Fidelity National Title Company, LLC	19 W. Hargett St., Suite 507 Raleigh, NC 27601	Ken Stone	1-888-690- 7384	1-919- 489-5231	support@liensnc.com	www.liensnc.com
Investors Title Insurance Company	19 W. Hargett St., Suite 507 Raleigh, NC 27601	Steve Brown	1-888-690- 7384	1-919- 489-5231	support@liensnc.com	www.liensnc.com
Stewart Title Guaranty Company	19 W. Hargett St., Suite 507 Raleigh, NC 27601	Jane Barkley	1-888-690- 7384	1-919- 489-5231	support@liensnc.com	www.liensnc.com
First American Title Insurance Company	19 W. Hargett St., Suite 507 Raleigh, NC 27601	Bryan Rosenberg	1-888-690- 7384	1-919- 489-5231	support@liensnc.com	www.liensnc.com
Old Republic National Title Insurance Company	19 W. Hargett St., Suite 507 Raleigh, NC 27601	Nicholas Long, Jr.	1-888-690- 7384	1-919- 489-5231	support@liensnc.com	www.liensnc.com
North American Title Insurance Company	19 W. Hargett St., Suite 507 Raleigh, NC 27601	John Fries	1-888-690- 7384	1-919- 489-5231	support@liensnc.com	www.liensnc.com
WFG National Title Insurance Company	19 W. Hargett St., Suite 507 Raleigh, NC 27601	R. Bauchle	1-888-690- 7384	1-919- 489-5231	support@liensnc.com	www.liensnc.com
Premier Land Title Insurance Company	19 W. Hargett St., Suite 507 Raleigh, NC 27601	Christy Tabor	1-888-690- 7384	1-919- 489-5231	support@liensnc.com	www.liensnc.com
A Southern Land Title Agency, LLC	19 W. Hargett St., Suite 507 Raleigh, NC 27601	Dottie Black	1-888-690- 7384	1-919- 489-5231	support@liensnc.com	www.liensnc.com

Lien Agent Exemption Attestation Statement

I, _____ hereby confirm that I am the owner of and do occupy the residence located at

_____.

I attest that the above statement is true and valid to the best of my knowledge.

Signature: _____ Date: _____

(Official Seal)

Signed and attested before me, this the _____ day of _____, 20____.

Signature of Notary Public

Commission Expires

Section 3 – Carbon Monoxide Alarms

2012 North Carolina Residential Code Section R315 Carbon Monoxide Alarms

R315.1 Carbon monoxide alarms. In new construction, one and two family dwellings and townhouses within which fuel-fired appliances or fireplaces are installed or that have attached garages shall be provided with an approved carbon monoxide alarm installed outside of each separate sleeping area in the immediate vicinity of the bedroom(s) as directed by the alarm manufacturer.

R315.2 Where required in existing dwellings. In existing dwellings, where interior alterations, repairs, or additions requiring a permit occurs, or where one or more sleeping rooms are added or created, or where fuel-fire appliances or fireplaces are added or replaced, carbon monoxide alarms shall be provided in accordance with Section 315.1.

R315.3 Alarm requirements. The required carbon monoxide alarms shall be audible in all bedrooms over background noise levels with all intervening doors closed. Single station carbon monoxide alarms shall be listed as complying with UL 2034 and shall be installed in accordance with this code and the manufacturer's installation instructions.

Section 4 – Energy Certificate/Duct Test

**TABLE 401.9
ENERGY EFFICIENCY CERTIFICATE**

Builder, Permit Holder or Registered Design Professional Print Name:	
Signature:	
Property Address:	
Date:	
Insulation Rating – List the value covering largest area to all that apply	R - Value
Ceiling/roof:	R -
Wall:	R -
Floor:	R -
Closed Crawl Space Wall:	R -
Closed Crawl Space Floor:	R -
Slab:	R -
Basement Wall:	R -
Fenestration:	
U-Factor	
Solar Heat Gain Coefficient (SHGC)	
Building Air Leakage	
<input type="checkbox"/> Visually inspected according to 402.4.2.1 OR	
<input type="checkbox"/> Building Air Leakage Test Results (Sec. 402.4.2.2) ACH50 [Target: 5.0] or CFM50/SFSA [Target: 0.30]	
Name of Tester/Company:	
Date:	Phone:
Ducts:	
Insulation	R -
Total Duct Leakage Test Result (Sect. 403.2.2) (CFM25 Total/100SF) [Target: 6]	
Name of Tester/Company:	
Date:	Phone:
Certificate to be displayed permanently	

401.3 Certificate. A permanent certificate shall be posted on or in the electrical distribution panel, in the attic next to the attic insulation card, or inside a kitchen cabinet or other approved location. The certificate shall not cover or obstruct the visibility of the circuit directory label, service disconnect label or other required labels. The builder, permit holder, or registered design professional shall be responsible for completing the certificate. The certificate shall list the predominant R-Values of insulation installed in or on ceiling/roof, walls, foundation (slab, basement wall, crawlspace all and floor) and ducts outside conditioned spaces; U-factors for fenestration and the solar heat gain coefficient (SHGC) of fenestration. Where there is more than one value for each component, the certificate shall list the value covering the largest area. The certificate shall indicate whether the building air leakage was visually inspected as required in 402.4.2.1 or provide results of the air leakage testing required in 402.4.2.2. The certificated shall provide results of duct leakage test required in Section 403.2.2. Appendix 1.1 contains a sample certificate.

APPENDIX E-3: SAMPLE WORKSHEETS FOR RESIDENTIAL AIR AND DUCT LEAKAGE TESTING

APPENDIX E-3A: Air sealing: Visual inspection option (Section N1102.4.2.1)

Sample Worksheet

N1102.4.2 Air sealing. Building envelope air tightness shall be demonstrated by Section N1102.4.2.1 or N1102.4.2.2.

N1102.4.2.1 Visual inspection option. Building envelope tightness shall be considered acceptable when items providing insulation enclosure in Section N1102.2.12 and air seal-

ing in Section N1102.4.1 are addressed and when the items listed in Table N1102.4.2, applicable to the method of construction, are certified by the builder, permit holder or registered design professional via the certificate in Appendix E-1.

**TABLE N1102.4.2
AIR BARRIER INSPECTION**

COMPONENT	CRITERIA
Ceiling/attic	<p>Sealants or gaskets provide a continuous air barrier system joining the top plate of framed walls with either the ceiling drywall or the top edge of wall drywall to prevent air leakage.</p> <p>Top plate penetrations are sealed.</p> <p>For ceiling finishes that are not air barrier systems such as tongue-and-groove planks, air barrier systems,(for example, taped house wrap), shall be used above the finish.</p> <p>Note: It is acceptable that sealants or gaskets applied as part of the application of the drywall will not be observable by the code official.</p>
Walls	Sill plate is gasketed or sealed to subfloor or slab.
Windows and doors	Space between window and exterior door jambs and framing is sealed.
Floors (including above-garage and cantilevered floors)	Air barrier system is installed at any exposed edge of insulation.
Penetrations	Utility penetrations through the building thermal envelope, including those for plumbing, electrical wiring, ductwork, security and fire alarm wiring, and control wiring, shall be sealed.
Garage separation	Air sealing is provided between the garage and conditioned spaces. An air barrier system shall be installed between the ceiling system above the garage and the ceiling system of interior spaces.
Duct boots	Sealing HVAC register boots and return boxes to subfloor or drywall.
Recessed lighting	<p>Recessed light fixtures are air tight, IC rated, and sealed to drywall.</p> <p>Exception—fixtures not penetrating the building envelope.</p>

Property Address:

N1102.4.2.1 Visual Inspection Option

The inspection information including tester name, date, and contact shall be included on the certificate described in Section N1101.9.

Signature

Date

APPENDIX E-3C
Duct sealing. Duct air leakage test (Section N1103.2.2)

Sample Worksheet

N1103.2.2 Sealing. All ducts, air handlers, filter boxes and building cavities used as ducts shall be sealed. Joints and seams shall comply with Part V – Mechanical, Section 603.9 of the *North Carolina Residential Code*.

Duct tightness shall be verified as follows:

Total duct leakage less than or equal to 6 CFM (18 L/min) per 100 ft² (9.29 m²) of conditioned floor area served by that system when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure.

During testing:

1. Block, if present, the ventilation air duct connected to the conditioning system.
2. The duct air leakage testing equipment shall be attached to the largest return in the system or to the air handler.
3. The filter shall be removed and the air handler power shall be turned off.
4. Supply boots or registers and return boxes or grilles shall be taped, plugged, or otherwise sealed air tight.
5. The hose for measuring the 25 Pascals of pressure differential shall be inserted into the boot of the supply that is nominally closest to the air handler.

6. Specific instructions from the duct testing equipment manufacturer shall be followed to reach duct test pressure and measure duct air leakage.

Testing shall be performed and reported by the permit holder, a North Carolina licensed general contractor, a North Carolina licensed HVAC contractor, a North Carolina licensed Home Inspector, a registered design professional, a certified BPI Envelope Professional or a certified HERS rater. A single point depressurization, not temperature corrected, test is sufficient to comply with this provision, provided that the duct testing fan assembly has been certified by the manufacturer to be capable of conducting tests in accordance with ASTM E1554-07.

The duct leakage information, including duct leakage result, tester name, date, company and contact information, shall be included on the certificate described in Section N1101.9.

For the Test Criteria, the report shall be produced in the following manner: perform the HVAC system air leakage test and record the CFM25. Calculate the total square feet of Conditioned Floor Area (CFA) served by that system. Multiply CFM25 by 100, divide the result by the CFA and record the result. If the result is less than or equal to [6 CFM25/100 SF] the HVAC system air tightness is acceptable.

Complete one duct leakage report for each HVAC system serving the home:

Property Address: _____

HVAC System Number: _____ Describe area of home served: _____

CFM25 Total _____ Conditioned Floor Area (CFA) served by system: _____ s.f.

CFM25 × 100 divided by CFA = _____ CFM25/100SF (e.g. 100 CFM25 × 100/2,000 CFA = 5 CFM25/100SF)

Fan attachment location _____

Company Name _____

Contact Information: _____

Signature of Tester

Date

Permit Holder, North Carolina Licensed General Contractor, North Carolina Licensed HVAC Contractor, North Carolina Licensed Home Inspector, Registered Design Professional, Certified BPI Envelope Professional, or Certified HERS Rater (**circle one**)

Section 5 – Tracer Wire

Effective March 1, 2017, the 2012 NC Plumbing Code, Section 306.2.4 has been amended as follows:

306.2.4 Tracer Wire. For plastic sewer *pip*ing, an insulated copper tracer wire or other *approved* conductor shall be installed adjacent to and over the full length of the *pip*ing. Access shall be provided to the tracer wire or the tracer wire shall terminate at the cleanout between the building drain and building sewer. The tracer wire shall be not less than 14 AWG and the insulation type shall be listed for direct burial.