

The information herein is the most common instructions to obtain the necessary permits for your project and is not representative of all the conditions you may encounter.

## Contact and locate us...

### Building and Zoning Departments Pulaski County Administration Building First Floor

143 Third St. NW, Suite 1  
Pulaski, VA 24301  
540-980-7710 (telephone)  
540-980-7717 (fax)

### Hours of Operation

Monday - Friday  
7:30 am - 4:30 pm

### Environmental Health Department Pulaski County Administration Building Basement

143 Third St. NW  
Pulaski, VA 24301  
540-980-994-5037

### Miss Utility

Always call 811 before you dig.

### Virginia Department of Professional and Occupational Regulation

1-804-367-8500  
www.dpor.virginia.gov



## Who should apply for the permit?



Homeowners may obtain permits. However, it is strongly recommended your properly licensed contractor pull the permit as the responsible party so the county can better assist you in gaining compliance for defective work.

## WHAT IS THE ICC400?

The 2012 ICC Standard on the Design and Construction of Log Structures (ICC400-2012) was first published in December 2011 by the International Codes Council (ICC), which owns all rights to the publication. It is the only document regarding log structures that has been approved by the American National Standard Institute (ANSI) as a consensus standard. This means that ICC400-2012 is applicable to all "types of construction whose primary structural elements are formed by a system of logs." All proprietary methods and materials of construction must demonstrate compliance with sections of the standard as required by the jurisdiction having authority.

The standard applies to all new log construction with the following scope: "This standard establishes the minimum requirements for log structures to safeguard the public health, safety and welfare through structural, thermal, and settling provisions."

ICC400-2012 is comprised on five chapters (1-Administrative Provisions, 2 - Definitions, 3 - General Requirements, 4 - Structural Provisions, and 5 - Referenced Standards). It is referenced in other 2012 ICC Codes (IBC - building, IRC - residential, IECC - energy conservation), therefore adoption of these codes in a jurisdiction includes adoption of ICC400. It is important to note that non-log portions of the building (ie: foundation, roofing, plumbing, mechanical, electrical, etc.) must comply with applicable adopted codes.

## LOG GRADING

All logs used in a structural capacity are required to be visually stress graded. Such grading must be performed under the auspices of an accredited grading agency. Two agencies are accredited as rules-writing grading agencies and have provided their design values for inclusion in the standard. Therefore, ICC400 gives additional value to design professionals to engineer log structures rather than adapting data that is published on other structural wood products. Log grading programs are tasked by ICC400 to certify moisture content of any log product that claims to be dried to any extent.

## FIRE RESISTANCE

Prior to ICC400, log wall systems were regularly challenged by code officials where fire resistive construction was required. ICC400 sets a prescriptive requirement that a log wall used for 1-hour fire separation have a minimum dimension of 6" at the narrowest width of the log profile. For other fire resistance, the log wall can follow calculations in the AF-PA National Design Specification (NDS) for Wood Construction, Chapter 16 or tested per ASTM E119 by an accredited laboratory.

## ENERGY CONSERVATION

Solid wood walls have a dynamic relationship that tempers the temperature and relative humidity of the interior climate. They do not have tremendous R-values, a static measure of heat transfer using standards developed to measure insulation products. Closely tied to the IECC, log walls benefit as a mass wall and two methods are provided to facilitate compliance with the energy code - a prescriptive U-factor for logs of particular wood species and average log width or a prescriptive minimum requirement for the overall thermal envelope. Additionally ICC400 provides a calculation and test method to demonstrate thermal performance. In the 2012 edition, the forecasted requirements to minimize air exchange rates (verified via blower door testing), Section 306 was added to provide guidance on infiltration. Section 305 Thermal Envelope and 306 combine to address energy conservation. The development of ICC400-2012 permitted the list above to be expanded to include allowances for settling and maximizing durability.

## PROVISION FOR SETTLING

ICC400 expanded the evaluation of log structures to include provisions for settling, which encompasses log grade, moisture content, and shape. It governs how joints are managed with sealant systems and establishes min. requirements for how the change in log wall height in accommodated in other aspects of the building.

## WALL PROTECTION USING ROOF PROTECTION

Roof overhang minimum requirements are designed to minimize repeated wetting of lower log courses that generates deterioration of the finish and wood surface. Options are presented to eliminate splash back on the wall from lower horizontal surfaces (ie: porch roof, balcony, deck, or any individual log member). The extension of the roof overhang shall be measured horizontally from the face of the exterior wall to the drop line at the edge of the overhang.