



## Spring NEWSLETTER 2009

### What we do

Avalon Log Homes, a division of Avalon Enterprises recognizes that the perfect log home is truly subjective to the homeowner. We proudly offer the industry's most comprehensive portfolio of log home packages to choose from. We specialize in the design and manufacturing of custom milled, log sided, timber frame, and artfully handcrafted log homes. Avalon offers clients an unparalleled selection of log homes to choose from. With over 150 standard designs, multiple profiles, styles and sizes, and numerous complimentary services, Avalon homeowners are assured that their log home will be everything they've always dreamed it would be—right down to the smallest detail. A **milled log home** is the product of an automated manufacturing process that converts raw logs into a precision milled product of exacting dimensions, profiles and corner styles. Avalon's milled log homes feature interlocking tongue & groove or saddle notch logs which allows Avalon logs to fit snugly when stacked. A **handcrafted log home** represents the time-honored art of logsmithing. Avalon's handcrafted log

### Visit Our Website

Many people have found a great resource at our website: <http://www.avalonloghomes.com>. We have a Buyer's Guide that has many important things to consider in planning and building your log home. We suggest you look at our different floor plans to find what comes closest to your needs. Though we pride ourselves on having the finest standard plans in the

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homes are constructed using many of the same practices as those employed by early American and European logsmiths centuries ago. Using mostly hand tools, Avalon crews cut and shape logs from carefully selected trees so that each log fits perfectly on top of each other. A **timber frame** home is carefully crafted with precise automated equipment to create beautiful beams and arches which become the superstructure of the home. A **log sided** home, unlike milled or handcrafted log homes, is the product of combining half or quarter log siding with conventional stud framing and insulation to create the look and feel of a log home without using full logs.

industry, we realize that your dream home is just that—the home of your dreams (not ours). We can work with any floor plan. Because all of our homes are fully customized, Avalon's expert design team is at your service to ensure that your log home meets each of your exacting requirements. We can start with one of our plans or yours.

## Wood Shrinkage

All log homes will shift and settle, regardless of the species of wood chosen, or the construction methods used. Without proper construction, settling in a log home can cause problems when logs shrink as they dry out. Log walls are also subject to compression from the weight of the logs placed above it. This is another key factor in choosing one that produces the highest quality of log work not necessarily the least expensive log home company to build your home. The method of construction of a log home must take into account the moisture content of the wood to be used. A good log home builder is aware of the wood shrinkage that will occur and takes this process into account in the designing and building of their homes. An experienced builder has the ability and knowledge to calculate the amount of shrinkage that will occur in a log, and by using proven techniques, compensate for any future shrinkage that the log will undergo. Because handcrafters work with much larger diameter logs in longer lengths, than manufactured log homes, kiln drying is not generally an option. Rather than fighting the shrinkage, a good handcrafter must have an excellent understanding of the dynamics of a given species of wood in order to accurately anticipate shrinkage that will occur, and compensate for the settling that will likewise occur. Many manufactured log home companies are beginning to employ many similar techniques in their method of construction, due to the success of the handcrafted method of building.

"The lower the moisture content of the house log, the drier and lighter the wood will be."



We did not invent the log home, but we perfected it!

### Dead Standing Timber for Stability in Log Homes

High in the Canadian Rocky Mountains, vast tracts of timber have been killed by periodic beetle epidemics. The beetles kill green trees, but do not harm the wood, leaving a tree dead but still standing and sound. There, at high altitudes, where the humidity is low and the precipitation is mostly snow, trees stand for years, sometimes decades. Over time, this dry climate and natural curing process thoroughly dries dead-standing trees.

Dry wood is necessary for dimensionally stable lumber and house logs. Wood used in conventional home construction is dried, usually by kiln or air drying. This process works fine for lumber and boards, but with sizable pieces of wood, such as house logs, the results are far from satisfactory. While kiln or air drying logs yields a certain degree of dryness, it's difficult to dry large house logs all the way to the center by duplicating the natural aging process.

All logs shrink, warp, and crack to some extent during the drying and aging process. With Avalon Log Homes "ALH" Logs, the shrinkage and warpage have already occurred *before* the logs are used in your house. Our house logs, made from dead-standing timber, are stable.

By building with ALH Logs, you get benefits in both in the long run with the stability of your home, and in the short run with labor and freight savings due to lighter weight.

House logs from dead-standing timber greatly simplify every phase of construction. Builders using green logs must take extraordinary precautions to allow for settling and shrinking. Openings for doors and windows are built oversized and with special designs so that over the years the settling logs do not press down on windows and doors. Hundreds of joints have to be routed and splined to prevent gaps as the house ages and to keep logs from splitting. Corner systems have to be engineered to keep corners from separating.

With ALH Logs made from dead-standing timber, we don't have to make these allowances for drying and aging wood because our logs have been thoroughly cured before they are ever used in a house. ALH Log Home construction is simple and straightforward, practical for do-it-yourself builders or professionals, and much less labor-intensive than green construction.

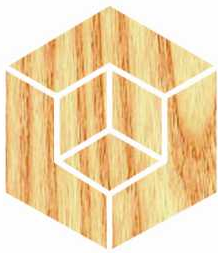
We are one of the few log manufacturers who qualify to use the word "dry" on our grade stamp, indicating moisture content of less than 19%. Fact is, most of the house logs we mill are less than 14% moisture content.

## How Logs are Graded

Logs are graded by visual inspection. All of the factors, such as knots, slope of grain, checks and splits, decay, holes, etc. that affect the strength of a log are taken into consideration when assigning the grade. These strength altering factors, or "defects," found during visual inspection result in the assigned grade.

The list of defects include the following: burl, checks, compression wood, decay, edge, holes, knots, manufacturing imperfections, pitch, pitch streak, pockets, shake, slope of grain, splits, trim, wane, warp, and others.

Each grade has an "allowed design stress value," which is used by engineers and architects to choose the appropriate species, size and grade of log for the application being considered. It is also used by local code officials to assure them that the logs meet the building code requirements.



■ AVALON LOG HOMES ■

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Avalon Log Homes uses Wall log 40 or better