LOG CABIN HUB

HOW TO BUILD A LOG HOME
The Complete Guide
Author’s Note

First of all, I’d like to thank you for deciding to download these sample chapters.

Whether you have been following logcabinhub.com for a long time, or you have only recently discovered us, it’s great to have you in our community.

This guide contains all the information you need. It’s my hope that after reading it you will be able to build a log home of your own.

If you have any questions about the guide, or would like to send pictures of your completed log home to feature on our website, please use the following email address: david@logcabinhub.com
CONTENTS

| INTRODUCTION | .................................................................................................................. 5 |
| PLANNING AND DESIGNING | ......................................................................................... 11 |
| ZONING LAWS AND BUILDING CODES | ........................................................................ 26 |
| FINDING AND BUYING LAND | .......................................................................................... 44 |
| SELECTING AND PREPARING LOGS | ............................................................................. 54 |
| GROUND WORK | .................................................................................................................. 68 |
| WALL AND NOTCHES | ....................................................................................................... 89 |
| FITTING THE FLOOR | ........................................................................................................ 104 |
| ASSEMBLING THE ROOF | .................................................................................................... 114 |
| INSULATION | ...................................................................................................................... 133 |
| WINDOWS AND DOORS | ..................................................................................................... 145 |
| EXTERIOR FINISH | ............................................................................................................. 151 |
| MAINTENANCE | .................................................................................................................. 156 |
| CONCLUSION | ...................................................................................................................... 162 |
Welcome to How to Build a Log Home: The Complete Guide. This guide takes you through step-by-step, how to build your own custom log home. Even if you are a complete construction novice, you will be able to build your dream home after reading this guide.

The chapters are split into each of the vital steps needed to build a log cabin. We will examine different techniques and approaches to help you find the best option suited to your build. Each chapter will end with a summary checklist.

We will also follow a real life log home build throughout this guide, taking you through the log cabin project from its very beginnings, all the way through to completion.

I would like to thank Jill and Aaron Bork, from http://www.alaskaantlerworks.com/, for giving us permission to use their log cabin as the project that features throughout this book. Please note that there is no connection between the example project and the author.
LOG HOME LIVING

So, you know you want to build a log cabin and probably have a few good ideas about why, but did you know how many benefits there actually are to living in a log cabin? Not only does it bring about the economic freedom that most people dream of, but it also offers you a whole new way of life.

Many people I have spoken to over the years say they want to escape the rat race; be free from debt. Today’s society is slowly but surely turning away from the conventional mind-set that to live a good life, you must have a big house, plenty of money and a 9-5 job. Countless people have escaped the pressures of city life, and retreated to the woods to live a more peaceful, less stressful life in their cabin homes. A log home, quite simply, equates to more freedom and less stress.

Alongside the economic freedom that comes from building a log cabin, is the move towards living a more sustainable life. Timber is one of the most sustainable materials there is. If you buy from a sustainable source, more trees must be planted for each one that is harvested. Logs are completely renewable, once it is no longer viable to restore a log home; the wood has many more uses such as wood chips or being used as fuel.

Cost is another huge benefit of building a log cabin, with the demand of log cabins on the rise, building your own is now a profitable investment. Cabins can be built as inexpensively or as expensively as you wish; you are in control of the final spend.

Some people dream of living in a log cabin to reconnect with what matters; living so close to nature is an amazing way to disconnect from the worries and stresses of everyday life, and reconnect with yourself and your family.

Building your own log home can also give you an incredible sense of achievement; can you even begin to imagine how it will feel to live in a place built with your own hands? Every nook and cranny in your home will remind you of the journey you have been on, from having your initial idea to building a log cabin, to standing in your dream home.

I’m sure there are many other reasons and benefits to building your own home, but the ultimate reason for me is that it gives you the opportunity to design exactly what you want and need. When you design your log cabin, it is your vision, your dream; it can be anything you want it to be. You know the way you like your live everyday life, and you can ensure your home runs in
an efficient way that works for you and your family.

As wonderful as it is to talk about the many benefits of log cabin living, I do not want to leave you under the illusion that building a log cabin will be easy.

As tempting as it is to jump straight into planning your log home, you'll be in a more prepared position if you take time to consider what can go wrong, and where other people have failed.

Having a realistic outlook right from the start is essential. Learning from other people's mistakes will give you an advantage throughout your planning process, that's why we are covering them right at the start of this book.

So, what are the mistakes you could make to cause your log cabin build to fail? Here are the eight most common mistakes that first time cabin builders are likely to make, so that you won’t.

**MISTAKES TO AVOID WHEN BUILDING YOUR CABIN**

**Mistake #1: Rushing the Planning Stage**

‘By failing to prepare, you are preparing to fail’.

Benjamin Franklin

Your log cabin build, like most things in life, requires thoughtful and considerate planning. Transitioning from city or urban living to rural living isn’t difficult, but it does require a large dose of common sense and rigorous planning. The good news is, you’re in the right place; you’re reading this guide. The planning process for your log cabin should make your dream clear in your head. Think about the type of log cabin you want and the construction method you are going to use.

This guide will take you through a thorough and detailed planning process in Chapter Two and once you have finished reading it, the chances of making any mistakes during the planning stage will have been greatly reduced.

**Mistake #2: Creating an Unrealistic Budget**

If you’re like me, it’s easy to get caught up in the excitement of your log cabin and forgetting to calculate a realistic budget. Preparing a budget for your log cabin is a vital part of the planning process. The budget is reliant on your selection of
construction method and cabin size. For a very quick costing technique, take the average cost of $50 per square foot for a handmade log cabin. You have to be careful taking an average cost because it is only an estimate, but it’s a good first indicator of cost. A more realistic approach factors in finish standard, modern conveniences, and cabin location.

The most common mistake when budgeting is to forget hidden costs or unexpected costs; you can make sure this doesn’t happen in your build by using the budget tool that you received with this guide. Chapter Two will take you through an example budget to help you understand how to work out your own.

**Mistake #3: Not Choosing a Suitable Location**

Choosing the wrong location can leave you in all kinds of mess, perhaps the local zoning laws won’t allow certain builds to take place within the area. Maybe the land isn’t right to build on, or there are no utility lines for miles around to connect to. The location for your log cabin is a very personal decision but should also be determined by some practical factors. If you already own the land where your log cabin will be built; you will most likely have already given this a great deal of thought. However, if you’re going to purchase land to place your cabin on, you need to make sure it is fit for purpose.

Chapter Three will help you to determine planning and building codes in your area, and Chapter Four will provide you with a full breakdown of things to consider when buying land, such as convenience of access, local building regulations and natural shelter and protection.

**Mistake #4: Rushing the Design Process**

All too often, we hear from people that started the construction phase only to realize half way through that they’d missed something out of their design. The design and planning stage is the most important part of your log cabin build. Planning is by far the most time consuming, but important stage of building your home. Don’t skip over this step, the more time you spend planning and organizing, the more successful your build will be.

Chapter Two includes in depth steps which you can follow to make sure your planning and design stage is fool proof.
Deciding upon a self-build log cabin or purchasing a ready-made kit to assemble is a decision influenced by lots of factors. Many people don’t feel that they are able to build a custom log cabin from scratch, but don’t rule it out as an option. You’ll certainly feel a lot more confident in building a log cabin after reading this guide!

Kit assembly log cabins can cost upwards of $80,000 for the kit; this will contain timber, doors and windows. A basic rule of thumb is to multiply the kit cost by three to calculate the finished cost; so an $80,000 kit will cost you $240,000 for a finished cabin.

In comparison, self-build cabin are a much cheaper alternative than a kit assembly cabin. Typically a self-build cabin will cost $50 per square foot less. Choosing to build your own cabin gives you the opportunity to create a unique log cabin which meets your needs. Don’t rule out the option of a self-build log home too early – you CAN do it! Not only can you do it, it will also be one of the most rewarding things you can do, when you step back and look at your spectacular custom built log home!

Mistake #6: Not Investing in Quality Multi-Purpose Tools

The tools you require for your log cabin construction will depend upon your mindset. If you are looking to embrace off-grid living and live full-time in your log cabin, then my advice would be to invest in tools that will last well beyond the project. The best piece of advice for tooling is not to invest in “specialty” tooling. Specialty tooling typically is only used once on the project and will cost you a small sum of money. Your money is much better spent on multi-functional tools. This guide contains a complete list of tools that you will need in Chapter Two.

Mistake #7: An Incomplete Resource List

This may seem like an obvious mistake not to make, but it happens more often than you think. Just one off measurement or one missing tool can put your build on hold for weeks. Creating a comprehensive list of materials and resources for your log cabin project is an important step. Once you have decided upon the size of your cabin this should be the next decision you make. Carpenters would call this a “cutting list” with the quantity, dimensions and type of material required.

You’ll learn everything you need to know about timber selection in our log preparation section in Chapter Five.
Mistake #8: An Incomplete Timeline

The preparation and construction phase of your log cabin build can take between 3-9 months. Timing the start of your construction can be very important for the following three reasons; Weather/Season interference (avoid known tropical/rainy seasons); Timber cutting (difficult to forest and cut down wet timber) and; Building conditions (harder to construct the cabin’s roof in wet/snowy conditions)

A common mistake made by first-time log cabin builders is they disregard when the start and end of the construction period should be – this can cause trouble. The first problem you will find is that picking the correct time to build your cabin varies upon your cabin’s location and the season. After reading Chapter Two you will have covered all the things you need to create a thorough, realistic timeline.

End of Chapter Summary

Don’t fall into the mistake of underpreparing. Most failures of log cabin builds result in not enough planning, and not giving enough thought to the different stages that your project will require. Make sure you allow plenty of time for the planning stage. It is without a doubt the most important stage of the whole process.

WHAT HAVE YOU LEARNED?

☐ The benefits of log cabin living and whether it’s suited to you
☐ The importance of creating a realistic budget
☐ How crucial the planning stage is
If you are lucky enough to own a piece of land with trees readily available to use, you probably won’t have given much thought about how to select the most appropriate logs for your home. You might not know that there are over seven hundred species of tree in the USA; however manufacturers only use roughly two dozen of them to build log homes. So, how do you know which species to opt for if you do need to source logs?

Choosing the right logs is an important decision when building your log cabin. This should be made at the beginning of your planning process. The logs will determine the overall look, structure and cost of your finished log home, and how well your home will withstand Mother Nature.

**SELECTING YOUR LOGS**

Making the decision as to which species of tree you should use to build your log home will fall down to a number of key things; appearance, cost, R-value, decay resistance, sturdiness/stability and availability.

**APPEARANCE**

The look of the logs and what you find attractive is very much dependent on your personal taste. You must also bear in mind that the appearance of logs can change during application of preservatives or through weathering. If you are selecting your own logs, you will want to make sure they are straight and have a good length of around 10-12m.

**COST**

The cost of logs can vary quite significantly depending on the species. Usually, slow-growing species such as northern white cedar are more expensive and fast growing species such as yellow pine are less expensive. The price can also be affected by the
area in which you live. If a species of wood is not readily available in your location, you will have the added cost of transportation.

**R-VALUE**
The R-Value is the measurement of resistance of heat flow through a certain thickness of material. The higher the R-value the better. Insulation efficiency varies in different species of logs, however this is only very marginal and there are lots of other ways to insulate your log cabin and make it as energy efficient as possible.

**DECAY RESISTANCE**
Trees produce their own natural decay resistance through toxins. These toxins help the tree to resist attack from insect infestations and fungi. The older the tree, the higher the concentration of toxins, so therefore the more heartwood a tree has, the more resistant it is to decay. Species that are fast growing have more sapwood are typically less resistant to decay but should not be ruled out as they are easy to protect and maintain with wood preservatives. Even the most naturally highly resistant species such as cypress, redwood and western red cedar, will still require treatment and maintenance.

*Sapwood*: the living, softer outer layers between the heartwood and the bark. *The sapwood carries water and minerals to the rest of the tree.*

*Heartwood*: as the tree grows in width, the sapwood closest to the middle dies and becomes dense, hard heartwood.

**STABILITY**
Almost all logs are likely to shrink and settle. Other concerns that you may have is that they will twist, warp and check. You can avoid these concerns by choosing appropriate good quality logs during the selection stage.

**AVAILABILITY**
Your choice of log will very much depend on what is available in your local area, unless you are willing to pay a premium for transportation costs.
Log Species

The most popular logs used to build log homes are very much dependent on the trees grown in each area, or the availability and cost of trees in a particular area. These are the most common trees used:

America/Canada: Pine (white, yellow and red) Eastern or Western white cedar, cypress, spruce, fir, hemlock, ponderosa pine, lodgepole pine and hardwoods such as oak, poplar and walnut.
Europe: Spruce and pine.
Australia: Douglas fir, cypress, larch and redwood

Let's take a better look at each individual species of tree. It is difficult to decisively say which one species is the best; choosing your lumber species is very particular to the individual and the area in which you are building. Hopefully the following breakdown will help you to think about the most suitable logs for you to use.

<table>
<thead>
<tr>
<th>WOOD SPECIES</th>
<th>APPEARANCE</th>
<th>COST</th>
<th>DECAY RESISTANCE</th>
<th>STABILITY</th>
<th>R-VALUE (PER INCH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atlantic White Cedar</td>
<td>Heartwood; light brown</td>
<td>Finer grade of wood; Expensive</td>
<td>High decay resistance</td>
<td>Shrinkage rate is small</td>
<td>1.41</td>
</tr>
<tr>
<td></td>
<td>Sapwood; white/ off-white</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northern White Cedar</td>
<td>Heartwood; light brown</td>
<td>Expensive</td>
<td>High decay resistance</td>
<td>Shrinkage rate is small</td>
<td>1.41</td>
</tr>
<tr>
<td></td>
<td>Sapwood; white/ off-white</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Western Red Cedar</td>
<td>Heartwood; reddish or pinkish brown to dull brown</td>
<td>Expensive</td>
<td>High decay resistance</td>
<td>Shrinkage rate is small</td>
<td>1.09</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cypress (Red and Yellow)</td>
<td>Heartwood; varies in color, from light yellowish brown to chocolate</td>
<td>Very expensive</td>
<td>One of the most decay-resistant woods</td>
<td>Shrinkage rate is moderately small</td>
<td>1.04</td>
</tr>
<tr>
<td></td>
<td>Sapwood; nearly white</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Species</td>
<td>Description</td>
<td>Cost</td>
<td>Decay Resistance</td>
<td>Shrinkage Rate</td>
<td></td>
</tr>
<tr>
<td>-------------------------------</td>
<td>--------------------------------------------------</td>
<td>------------</td>
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<td></td>
</tr>
<tr>
<td>Douglas Fir</td>
<td>Heartwood; red and blond color</td>
<td>Moderate/expensive</td>
<td>Moderately decay resistant</td>
<td>Shrinkage rate small to moderate</td>
<td>0.99</td>
</tr>
<tr>
<td>True Fir</td>
<td>Heartwood and sapwood; wood creamy white to pale brow</td>
<td>Usually not available in large enough diameter to build a log home</td>
<td>Low decay resistance</td>
<td>Shrinkage rate small to moderate</td>
<td>1.27</td>
</tr>
<tr>
<td>True Fir (Western Species)</td>
<td>Heartwood and sapwood; wood creamy white to pale brown</td>
<td>Moderate/expensive</td>
<td>Low decay resistance</td>
<td>Shrinkage rate small to moderate</td>
<td>0.99</td>
</tr>
<tr>
<td>Eastern Hemlock</td>
<td>Heartwood; pale brown/red. Sapwood; slightly lighter in color</td>
<td>Moderate</td>
<td>Low decay resistance</td>
<td>Doesn’t usually twist or check but prone to wind shake damage</td>
<td>1.16</td>
</tr>
<tr>
<td>Western Hemlock</td>
<td>Heartwood and sapwood; white with a purplish tinge</td>
<td>Moderate</td>
<td>Low decay resistance</td>
<td>Shrinkage rate is moderately high</td>
<td>1.16</td>
</tr>
<tr>
<td>Larch</td>
<td>Heartwood; yellowish brown Sapwood; yellowish white</td>
<td>Moderate</td>
<td>Moderate decay resistance</td>
<td>Shrinkage rate is moderately high</td>
<td>0.99</td>
</tr>
<tr>
<td>Red Oak</td>
<td>Heartwood; tan/brown with a hue of red Sapwood; nearly white</td>
<td>Difficult to get satisfactory amount required to build; Moderately expensive</td>
<td>Low decay resistance</td>
<td>Shrinks quite substantially during drying</td>
<td>0.79</td>
</tr>
<tr>
<td>White Oak</td>
<td>Heartwood; golden tan/gray/brown. Sapwood; almost white</td>
<td>Expensive to kiln dry due to size</td>
<td>Moderate/ high decay resistance</td>
<td>Shrinks quite substantially during drying</td>
<td>0.75</td>
</tr>
<tr>
<td>Eastern White Pine</td>
<td>Heartwood; light brown with reddish tinge which darkens</td>
<td>Moderate</td>
<td>Moderate decay resistance</td>
<td>Shrinkage rate is small</td>
<td>1.32</td>
</tr>
<tr>
<td>-------------------</td>
<td>--------------------------------------------------------</td>
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<td>---------------------------</td>
<td>------------------------</td>
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</tr>
<tr>
<td>Lodgepole Pine</td>
<td>Heartwood; light yellow/light yellow brown Sapwood; yellow/almost white</td>
<td>Moderate</td>
<td>Low decay resistance</td>
<td>Shrinkage rate is around half that of other pines</td>
<td>1.20</td>
</tr>
<tr>
<td>Ponderosa Pine</td>
<td>Heartwood; light reddish brown Sapwood; almost white/pale yellow</td>
<td>Modestly priced</td>
<td>Low decay resistance</td>
<td>Shrinkage rate is moderately small</td>
<td>1.16</td>
</tr>
<tr>
<td>Red Pine</td>
<td>Heartwood; pale red/reddish brown Sapwood; almost white with a yellow tinge</td>
<td>Modestly priced</td>
<td>Moderate/ low decay resistance</td>
<td>Shrinkage rate is moderately high</td>
<td>1.04</td>
</tr>
<tr>
<td>Yellow Pine</td>
<td>Heartwood; reddish brown Sapwood; yellow/white</td>
<td>Quite cheap for floors and framing</td>
<td>Moderate decay resistance</td>
<td>High shrinkage rate but stable once seasoned</td>
<td>0.91</td>
</tr>
<tr>
<td>Western White Pine</td>
<td>Heartwood; cream/light reddish brown, darkens over time Sapwood; yellow/white</td>
<td>Widely available in big quantities-less expensive than other pines</td>
<td>Low decay resistance</td>
<td>High shrinkage rate but stable once seasoned</td>
<td>1.32</td>
</tr>
<tr>
<td>Yellow Poplar</td>
<td>Heartwood; yellow/brown Sapwood; white</td>
<td>Not usually available in large quantities.</td>
<td>Low decay resistance</td>
<td>Moderately large shrinkage rate</td>
<td>1.13</td>
</tr>
<tr>
<td>Redwood</td>
<td>Heartwood; light cherry to dark</td>
<td>Expensive</td>
<td>High decay</td>
<td>Small shrinkage</td>
<td>1.0</td>
</tr>
</tbody>
</table>
Once you have chosen the species of logs, you will need to consider where the trees have been grown, and how they are cut and dried. The higher the altitude the trees are grown in, the better. Slow growing trees produce much more dense wood and have tight growth rings which usually mean fewer cracks as the logs are drying.

Many trees are now grown in tree farms, to keep up with the demand. This results in less resistant trees as they have not had the time to develop as many concentrated toxins as a tree grown over a longer period of time. Trees that are grown quickly are more likely to be mostly sapwood. This leads to a log cabin which is prone to shrink and warp.

Logs should be felled in the winter; to make sure the sap content is at its lowest. If you are buying logs from a manufacturer, it is important to also ask them which cut of the log they use. Although more expensive, you ideally want it to be mostly heartwood, the strongest part of the tree and not the sides of the log.

<table>
<thead>
<tr>
<th>Species</th>
<th>Properties</th>
<th>Resistance</th>
<th>Shrinkage Rate</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spruce</td>
<td>Little distinction between heartwood and sapwood; light in color</td>
<td>Low decay resistance</td>
<td>Moderate shrinkage</td>
<td>1.16</td>
</tr>
<tr>
<td>Engelmann spruce</td>
<td>Heartwood; white/slight tinge of red. Sapwood; similar to heartwood</td>
<td>Low decay resistance</td>
<td>Moderately small shr</td>
<td>0.99</td>
</tr>
<tr>
<td>Black Walnut</td>
<td>Heartwood; light to dark brown Sapwood; almost white</td>
<td>High decay resistance</td>
<td>Shrinks quite</td>
<td>Not available</td>
</tr>
</tbody>
</table>
If you are air-drying the logs, they should be left for 1-2 years, the longer you can dry them for the better. Alternatively, logs can be kiln dried. This process dries the logs faster than air-drying but still at a slow rate to minimize damage to the wood.

By drying the logs prior to construction you will minimize the amount of shrinking, checking and movement to your log home. Before using the chosen logs, leave them for at least 48 hours in the environment they are to be used in. This allows for any moisture content adjustment they might need to make.

**How Many Logs Will You Need?**

Before you even think about ordering logs, or felling trees, you need to know how many logs you will require. Take time to plan your log cabin thoroughly and you may even want to study other log cabins to see how many logs they use on each wall.

Once you have an idea of how you want your cabin to look, draw it out on paper as detailed as possible, remember to include measurements on your plans detailing:

- Log Diameter
- Log Cabin Height
- Log Cabin Width
- Log Cabin Breadth

*Log should be 4ft longer than the dimensions to allow for cutting.*

After doing this, you will have a good idea of how many logs you are going to need. Remember, you don’t need full logs for each wall, if you have a window or door opening, you can either use parts of logs or cut a full log into lengths. By making sure you plan properly at this stage, you can make the most of all the trees you fell and even make use of a tree that curves by using only the straight bits.

Creating a comprehensive list of materials and resources for your log cabin project is an important step. Once you have decided upon the size of your cabin this should be the next thing you do. Carpenters would call this a “cutting list” with the quantity, dimensions and type of material required. Use the budget tool you received with this guide to help you make a comprehensive list.

The most common mistake made during the preparation of the cutting list is to either forget materials or underestimate how much you require. Remember; *Measure twice, cut once!*
Sourcing Your Logs

There are a number of options to sourcing you logs. The easiest, but more expensive is to purchase your logs from a saw mill or find a tree feller. A saw mill will be able to cut your logs to length although this will come at a premium rate. Alternatively, if you want to keep costs down and have access to cut trees down, you may want to consider cutting your own trees. This can be a much more rewarding way to building your log cabin, knowing you have chosen the logs and prepared them with your own hands.

If you choose this option, you will want to cut your logs in early winter when the sap levels are low. Cutting logs in the winter will also reduce the likelihood of cracking and splitting as the cooler temperatures allow for a slower drying time. The cold weather also minimalizes the likelihood of them becoming infested by insects, fungal growth, or mildew.

Spend time walking around the plot of land and decide which trees you will use. It is useful to keep note of them, number and mark each tree as you go. When looking at trees, make sure you check they are straight from every angle, and that the diameter of the logs is as similar as possible at each end.

Depending on your preference, your logs should be between eight and fourteen inches in diameter, with only minor tapering, for example in a sixteen foot long tree, the tapering should be no more than 2 inches.

Felling Trees

To fell trees you will need:

- Helmet with a face screen
- Safety glasses
- Leg protection
- Steel toe cap boots
- Chainsaw
- Axe
- Wedge

It is best to check which direction the tree is leaning, and cut it so it falls down in the same direction that it leans. You will need to make sure you have a clear area/pathway for you to move out of the way of the tree once it starts to fall. Stand
well clear of the tree in case it lands on another tree as it falls or doesn’t fall as you thought it would. **Do not** cut trees down on windy days. If weather conditions are not ideal, come back another day.

When you’ve established which way your tree is going to fall, on the side that the tree will fall, make a horizontal cut about a 1/3 into the tree no higher than your hip. Next you need to make a 45 degree angle cut upwards, to meet the end of your first cut.

The third cut to make is on the opposite side; about 2 inches above the horizontal cut you first made. You should make this cut about 1/10th of the tree’s thickness. At this point, the tree should start falling, however if it doesn’t you can drive a wedge into the last cut you made to help it fall.

I would recommend cutting 3 or 4 extra trees down as a backup plan – in case some split or are infested. Once you have all your trees cut down, you start cutting the logs to size. I would recommend over cutting them by a few inches so you can make a more accurate cut later on.

Keep the four logs with the largest diameter and length for your sills and top plates. The logs for the top plates should be cut two feet longer (minimum) than the other logs to support your gable end logs. Don’t cut too many trees down from the same space, the remaining trees will benefit from the extra light and space.

**Transportation**

If you’re building on the same site as where you’ve cut your logs, make sure there is a clear path to move the logs to your storage place. One of the benefits of felling a tree in the winter is that the ground is firm and hard, making the logs easier to move. If you are transporting them further afield you will need to organize transport to take them to wherever you intend to store them.
PREPARING YOUR LOGS

Once you have selected which logs you will use, you need to think about log preparation. Although it is arguably easier to build a log cabin than a traditional brick house; there is more to building a log home than just choosing your logs and stacking them on top of one another to create a wall. Logs need to be selected carefully and treated correctly to ensure the finished log cabin is a stable solid home.

Debarking

You are now ready to peel the bark off the trees. This is relatively easy. Straddle your log and use a drawknife to peel the bark off towards you at around a 30 degree angle. Use a bark spud for bark that is more stubborn to get off. You should still be wearing your protective eyewear to strip the log of bark.
Drying Process

Once the logs have been peeled you will need to store them to dry them out. They should be kept up off the ground and away from water and other elements. You may want to use a cover if you are not drying them inside.

You need to make sure that they are exposed to air on all sides; you can use skids for this. Skids are small pieces of wood (roughly ¾” x 12”) used to add space in between logs; these will increase ventilation and allow for even drying.

I recommend that you seal the ends as moisture evaporates most quickly from the ends (ten to twelve times quicker) which could cause ring separation or cracks. You can seal the ends with many different things; paraffin wax, polyurethane, shellac, latex paint or you can even buy specially formulated end grain sealants. You should seal the ends within minutes after being cut down; you should not wait hours, and definitely not days!

The drying time will vary depending on the wood species and thickness of the logs, but they will take at least one to two years to dry – the longer you can leave them before you start building the better. Logs need to acclimatize to the atmosphere and
reach equilibrium moisture content; this is the point at which the log is neither gaining nor losing moisture. However due to the nature of the climate, this is a dynamic equilibrium which changes throughout the year.

Another alternative is to kiln dry them. Although there are a number of manufacturers that kiln dry their logs (because this method dries them so rapidly) the moisture is forced out faster from the outside than the center and therefore causes cracking (checking).

A benefit of kiln drying is that the process dries the wood quickly and also "sanitizes" you logs by killing fungi or insects. Personally, I would recommend air drying your logs naturally; it will be worth the wait!

You should now know the species of log that you will use for your log cabin, how many logs you will need how to cut and debark your logs and dry them out. Once you are at this stage, your logs are ready to treat and you can then start using them to build your log cabin.

Regardless of which logs you end up choosing to build your log cabin home, you need to ensure that your cabin is; well designed during the planning process to allow for shrinkage; that your logs are treated appropriately prior to construction and that you continue to maintain the logs well upon completion.

**Treating the Logs**

It is important to treat your logs during the construction stage to ensure you extend the longevity of your log cabin, and to stop unwanted insects/other invaders setting up camp in your home.

Nowadays, log homes are typically made from fast grown trees such as pine, fir or spruces which mostly consist of sapwood – this wood can be easily attacked by insects unless protected. Examples of more insect resistant wood include cedar, cypress and hemlock wood however, without treatment these more hardwearing woods can also be subject to infestations.
Preventative treatment during the construction stage is much more effective and less expensive than treating an infestation. Make sure you follow this checklist of things to ensure you treat your logs correctly:

- **Dry thoroughly**

Once logs have been cut, it is vital that logs are dried properly to ensure no moisture is trapped inside.

- **Treat with Borate Treatment**

This treatment helps to protect the wood from pests. It is a fairly simply, non-time consuming process whereby the logs are dipped into borate solution, sometimes also being pressure treated to make sure the deepest parts of the log are protected.

- **Clean the logs**

Logs often collect dirt and mud during the transportation and construction stage, it is therefore important to clean them in the correct way. The best way to do this is to let them dry in the sun, and use a brush to wipe away the dirt or use a cleaning solution.

- **Use a preservative**

Applying a preservative to your logs is a great way to protect them from moisture, the preservative acts as a repellent and stops the wood from absorbing water. Depending on the type of preservative you use, you will need to reapply a coat every three to five years.

- **Use a biocide treatment**

This chemical protects against things like insects, mold and fungi. Although it is harmless to humans and animals, the chemicals kill organisms that feed on wood hence why it is wise to use a biocide treatment.

Ensuring that you care for and treat the logs prior to and during the construction of your cabin will not guarantee that you will have a bug free home, but it is a lot less likely that your home will be able to be penetrated by bugs. Most insects are in search of moist places so by eliminating the moist, you are lessening the chance of your home becoming infested.
End of Chapter Summary

It is important to ascertain the species of wood you want to use to build your log cabin, and by now you should know which species you are going to use. If you are felling your own logs, you will also now know how to do this and how to treat them afterwards.

WHAT HAVE YOU LEARNED?

☐ How to choose the correct species of wood
☐ Whether to order your logs or fell them yourself
☐ How to treat, store and protect your logs
Thank you for reading your free sample copy of How To Build A Log Home: The Complete Guide. With the full guide it will take you through step-by-step every single step of the process. From choosing your site, planning and designing your cabin through to building it. It includes comprehensive color diagrams, detailed construction techniques and DIY hints.

- For each step I give detailed construction discussion and techniques. I share the best way I’ve found to do a particular task.
- Break the construction technique down into plain English and avoid unnecessary technical jargon.
- Learn all there is to know about building permits including what key information you need to prepare before applying.
- Uncover the three most important areas to insulate so you avoid huge energy bills.
- Includes my tried and tested five step process to maintaining your log cabin. So you don’t end up with costly repair bills.
- Simple rule of thumbs and calculations to help you determine measurements.
- Advice on choosing the most cost effective technique for you. So you can build an affordable log home.
- Understand how to safely plan and design your dream log home fit for your family and future generations.
- Contains crucial information that every future log home owner needs to know, including self-build, kit build and contractor builds.
- Follows a real life example throughout, so you can see the techniques in action.
- If that isn’t enough, the guide is full of trade secrets that I have collected from people who were once in your exact position, experienced builders and knowledgeable log home companies.

You can purchase the full guide exclusively from:


Many Thanks,

Log Cabin Hub