

ULTIMATE GUIDE TO FLOORS, WALLS AND CEILING: BUILD, REMODEL, REPAIR



ABSTRACT

Home maintenance and repairs are a never-ending task. If you're renting, there's no landlord to help when something breaks. And even if you own your home, there's still a lot that can go wrong in any given year: roof leaks, plumbing issues, appliance malfunctions—the list goes on and on. In many cases, it's worth hiring professionals to handle these problems for you. But if your budget is tight or you want to do things yourself (or both), it helps to stay organized about what needs fixing and when so that you can budget for these expenses and save money by doing some of the work yourself.

RENOVATIONS AND ADDITIONS

The process

There are **4 key stages** to renovations and additions, and different experts may be involved at any stage:

- Assessment and design – you can design your own changes or get expert advice and services. You may get advice from an accredited energy assessor, who can audit your home and advise on the best and most cost-effective ways to improve energy efficiency. An architect or designer may also be able to give this advice, and can draw up plans for structural changes. Sometimes, your builder may be able to provide design advice or may have a designer on their staff.
- Approvals – if you require council approvals, you can go through the process yourself or get expert advice and services. Your designer or builder should be able to help you with the process.
- Building – you can do your own work, or get expert services. You will need licensed experts for some specialised changes, such as plumbing, gas, and electrical work.
- Certification – if you require certification, you will need a council building inspector or a registered private certifier to inspect the building works before completing the certification.

Research and decision making

Before you decide on any renovations, think about how your home functions now and how it could work more effectively, both in terms of your lifestyle and your thermal comfort. In particular, this is a good time to see how well your current design suits your climate, and what you could change to make your home more energy-efficient.

Conduct a 'SWOT' analysis (strengths, weaknesses, opportunities, threats) of your current home to identify the most cost-effective improvements. List all:

- strengths – current structures, spaces, uses and aspects that work well and should be retained
- weaknesses – such as rooms that do not suit their purpose (for example, in poor condition, in the wrong place, too big or small, too hot or cold)
- opportunities – for example, to increase solar access and reduce heat loss in winter, to reduce solar access and increase breeze capture in summer, swap room function, improve existing spaces (for example, by adding storage, or combining or dividing rooms)
- threats – items that require maintenance or repair or are structurally unsound.

Rebates and other incentives

When you are calculating your costs and budget, remember that there are various incentives, including rebates, available to help you improve your energy and water efficiency and install sustainable products and technologies in your home.

You can search Australian Government and state and territory government websites for incentives to suit you. Some state-based information sites are included in References and further reading in this chapter.

You can also contact your local council and manufacturers and retailers to ask about local and product incentives.

Approvals and certification

Some renovations or additions will require approval from your local council before you proceed. Most local governments have planning policies that allow minor internal and external changes that do not alter structure or services to be made without requiring council approval, but it is always best to check first.

Different renovations may also require different types of approvals. For example, changes to services (plumbing, drainage, gas and electrical) require approval and inspection by the relevant authority, but may not require planning or building approval.

For compliance certification, choose a certifier to check that environmental objectives and other requirements have been met at each stage before signing off. This can be your local government building inspector or a registered private certifier. Your certifier should be knowledgeable about sustainable practices and committed to ensuring environmental standards are upheld.

If you rent your home, you will need to check with your landlord or agent before making any changes. Some building owners may be prepared to contribute to sustainable upgrades in the knowledge that they can increase market appeal and property values.

Do-it-yourself (DIY)

Renovating your own home can be a rewarding experience and can work well for simple improvements. Indeed, popular TV programs make home renovation look easy. However, for larger or more complex projects, inexperience may lead to unforeseen environmental and financial costs.

Critical design details such as thermal performance, and energy and water efficiency are often overlooked to achieve a quick result. Critical steps in construction might also be skipped, including termite proofing, damp proofing and adequate surface preparation before fixing finishes. This can reduce the lifespan of renovations and waste valuable resources.



TOOLS REQUIRED FOR BUILDING AND REMODELING



You can't do any project without tools, but which tools do you really need? There's a specialty tool for every task, but you don't need every tool in the store to begin tackling projects. A smart strategy is to match the tool to the job at hand and fill your toolbox over time.

For any given tool, you're likely to find a broad price range that usually equates with quality. It's usually best to look in the middle of that range, buying tools that will let you do good work without breaking the bank.

Also, consider how often you're likely to use a particular tool. It's worth buying a better version of something you'll use every week than one you break out only occasionally. And keep in mind that many expensive or specialty tools can be rented.

Safety Gear Comes First

Two important pieces of safety gear often go without mention. The first is your own mind—if something feels unsafe, it probably is. Find another way. The second is the instruction manual for the power tool you're about to use—read it!

The most obvious body parts that need protection are your eyes. Wear safety glasses whenever using a power tool or any hand tool, such as a hammer, that might send something flying. Look for safety glasses that meet the ANSI Z-87 standard. Full face shields are called for whenever using a grinder.

Lungs need protection, too. On top of proper ventilation, dust masks or respirators will help guard your lungs. Paper dust masks are just for particulates like sawdust or insulation fibers. Use a respirator with the correct filters when working around chemicals and toxins found in lead paint dust or solvents, for example.

Muffs offer the best hearing protection, though they can be uncomfortable. Ear plugs are a lot cheaper and offer nearly as good sound reduction.

Consider your cell phone a piece of safety gear, too. Keep it with you whenever you're working for emergency purposes but take care not to allow yourself to become distracted by it.

Build Your Hand Tool Arsenal

Every toolbox needs several sizes of screwdriver, both straight and slotted. To save space, consider buying a multi-bit screwdriver rather than individual screwdrivers. You can buy hex-type inserts for these multi-bit screwdrivers that fit a wide variety of screws. A 25-foot tape measure handles most measuring, and a combination square helps with layout.

To reach higher, a 5-foot, Type 1 fiberglass stepladder is a sturdy workhorse. You may also want an extension ladder for outside work. Match the ladder height to the height of your house and buy at least a Type 2 ladder—Type 3 versions are cheaper, but not sturdy.

A 16 oz. carpenter's hammer is crucial, along with a utility knife and spare blades. A flat bar is good for prying, and a cat's paw is better at pulling nails than are a hammer..

Have a variety of clamps at hand—they're essential for gluing and for holding materials while you cut them, and they make great temporary handles.

A hacksaw and set of tin snips will handle most metal cutting needs. You'll also want a cordless drill and a set of bits. With any cordless tool, regularly charging the batteries extends their overall lifespan, particularly if you don't use the tool much.

Rounding out a basic tool kit is a set of 3/8-drive sockets in both inch and metric sizes, and a corresponding set of wrenches. Add in some locking pliers and you can handle most nuts and bolts.

Get Set for Painting and Patching

A 1½-inch putty knife and a 4-inch taping knife will take care of most filling and spackling. Get a sanding block to do the best job smoothing surfaces.

Painting is probably the most common DIY project. Quality brushes and rollers make a big difference and don't cost all that much—spend the money and learn to keep them clean.

A 2½-inch angled sash brush is generally very useful, and especially for corners, and a short-handled brush is great for tight spaces.

Gear Up for Outdoor Projects

If you have any yard at all, you'll need a shovel, a bow rake, and a steel leaf rake. If you like to grow plants, get a gardener's trowel. To trim shrubs, hand pruners handle little stuff, while loppers take care of medium branches. An arborist's saw will cut the rest.

For lawn care, start with a mower. Reel mowers are great for small yards, cordless electric mowers are great and trouble-free for larger areas, and a gas-powered push or riding mower is best used in large yards. You may also want a broadcast spreader for fertilizer.

Build Your Carpentry Tool Collection

Power saws are eclipsing handsaws, but a Japanese-style "pull saw" with a replaceable blade is still very useful, and a cordless jigsaw lets you cut curves, as well as making straight cuts. Circular saws are better and faster at straight cuts, especially in framing lumber and other thick material. With cordless tools, stick with one brand so that the batteries are interchangeable.

A level is indispensable to make your work true. At a minimum, buy a 4-foot level and a torpedo level.

For trimwork, you'll need a miter saw. A 7¼-inch sliding saw is extremely versatile, and the blades are less expensive than those for larger saws. For interior trim work furniture projects, you'll find that a cordless 18-gauge brad nailer gets the job done better and faster than hand-nailing. Make sure you have a nailset to drive any proud nails below the surface.

For framing, a rafter square is crucial for layout, along with a chalkline. Finally, impact drivers have all but replaced cordless drills for driving screws and lag bolts. The power these small tools deliver is impressive.

Just a Few Electrical Tools

Once you have a basic toolkit with screwdrivers and a cordless drill, you're well on your way. The first specialty electrical tool to buy is a circuit tester so you can be sure the power is off.

Linesman's pliers are great for twisting wires together. You'll want wire strippers for removing insulation from individual wires, and a cable stripper for cutting the sheathing on standard non-metallic sheathed cable.

To pull new wires in the walls of an existing house, get an electrician's fish tape to lead the way.

Get Plumbing Tools for the Materials You'll Use

As with electrical work, the basic toolkit already has many of the tools you'll need for plumbing. The most used household plumber's tool is a toilet plunger. And those cheap, barbed plastic drain snakes do a great job pulling hair from clogged showers.

Most houses are plumbed with copper, and you'll need a pipe cutter to work with that. Also, a propane torch and sandpaper are required if you'll be soldering new connections.

If your house is plumbed with PEX, or you want to use PEX in new work, you'll need a ring crimper and a PEX cutter. Get whatever ring crimper works with the PEX fittings your local store carries. Also, consider getting a PEX-clamp remover.

So, what's left in terms of tools? Plenty. But with the gear listed here, you can handle a huge variety of remodeling and home-improvement projects.

WHAT TO CONSIDER WHEN CHOOSING CONSTRUCTION AND BUILDING MATERIALS?



Cost, aesthetics, practicality and longevity. These are some of the things to consider when choosing building materials for your new construction or renovation.

A 2020 study by the National Association of Home Builders (NAHB) examined who decides what building materials to use in new home construction. Not surprisingly, builders and contractors exert the greatest influence over primary construction materials, such as windows and doors, siding and house wrap, lumber and plywood.

But this applies more to home builders in planned developments. If you're lucky enough to be custom-building a new home or vacation getaway, or remodeling an existing one, you'll probably have a much larger role in deciding what materials go into the build. And if you're taking on a DIY building or renovation project, then it's all on you to make sure the materials meet the demands of your location, climate and budget.

How Much Does It Cost?

Unless you have a limitless building budget, choose materials priced within your means without compromising too much on quality. Natural stone siding is the most expensive residential exterior building material, but it's also one of the most durable. When properly installed, stone siding can last more than 100 years. Make sure the materials you choose strike the right balance between price and longevity.

Is It Right for Your Region?

You may love the look of a certain material, but that doesn't mean it's right for your climate or region. Wood siding looks authentic and natural, but if you put it on a house in South Florida, the long rainy seasons can do lots of damage. So can termites, who also like the warm climates of the Southeast. Before you commit to a material, make sure it's hardy enough for the climate challenges of your specific region.

The more unique or rare the material, the harder it may be to find, and the longer it may take to be delivered. You probably have a timeline in mind for your project, so make sure to choose materials that fit the timeline. If those hand-painted tiles direct from Lisbon take three months to arrive, it may not be worth it.

Can It Be Delivered?

You want to build green, and a modular home on your wooded lot seems like the right solution. But will you need to cut down trees to position that home where you want it? Consider whether your materials can be delivered with relative ease. Keep in mind things like driveway width, overhead utility lines and – if you're building in a remote area – the size, condition and grade of access roads.

Is It Sustainable?

If building with sustainable materials is a priority, make sure you choose the right materials for your climate and setting. Solar panels, for example, might not power you through a long Midwestern winter.

Also keep transport costs in mind. If those sustainable materials must be hauled halfway across the country to your job site, the carbon emissions of transport might negate any eco-benefits.

Does It Fit Aesthetically?

A traditional log cabin looks great in the woods of Vermont. On a beach in Florida, not so much.

When choosing materials, especially wood, stone, stucco or other kinds of exterior siding, consider regional aesthetics. If you're building in a developed area, especially in deed-restricted communities, pay attention to local building codes, zoning ordinances and Homeowners Association (HOA) rules. These may dictate everything from what materials you can use to what color your house can be.

A BEGINNER'S GUIDE TO CEILING REPAIR



Water Damaged Ceiling Repair

Water damaged can be really frustrating especially if it affects not just one tile. But here is one simple guide to repairing water damaged ceiling:

- Figure out what's causing the water leak and fix that.
- Let the water-damaged area dry.
- Repair the damage based on the type of ceiling material.

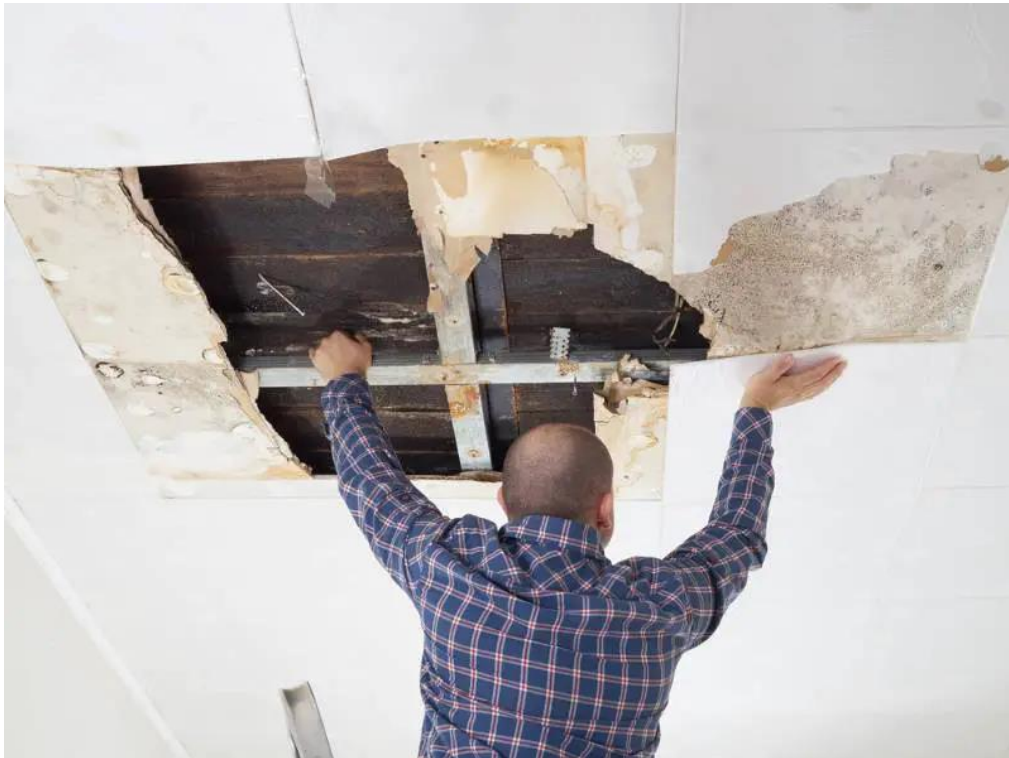
To prevent leaks before damage gets on your ceiling, you can use a wireless water detector.

Moldy Ceiling Repair

If the mold only covers a small area in your ceiling, you can clean off the mold with some common household cleaning products.

- Mix some warm water and mild detergent, then clean the area.
- Let that dry.
- Apply a mix of 1/4 cup of bleach with 1 quart of water to the area.
- Wait for 20 minutes.
- Apply the bleach solution a second time.
- Let dry for another 20 minutes.
- Treat the ceiling with some Borax to stop the mold from growing.

Drywall Ceiling Repair



To repair a damaged drywall ceiling:

- Cut out the damaged drywall into a square shape.
- Add some wood blockings to act as a support between your drywall patch and the surrounding ceiling.
- Insert your drywall patch into the hole you cut out and fasten them in place with some screws.
- Fill the gaps with some spackling compound and make sure they blend with the rest of the ceiling.
- Apply your ceiling patch and make sure it matches the texture of your ceiling.

HOW TO REPAIR A HARDWOOD FLOOR

Even the best wood floors are subject to damage. Hardwood flooring, by its name, sounds like it should be really hard. But, compared to other materials like tile, stone, and laminate, it is relatively soft and prone to damage such as scratches, gouges, and discoloration.

Repair Hardwood Floor Water Damage

In general, water is an enemy to wood floors. It can damage the finish, leave rings or discoloration or—at its worst—cause flooring boards to cup, warp, buckle, or grow mold.

Water damage to hardwood floors can be from minor to major. It can be caused by a potted plant that leaks onto the floor, from a burst appliance supply hose, or from major flooding.

Methods for dealing with hardwood floor water damage depend upon the severity of the damage.

Severe water damage. If several hardwood flooring boards have warped because of excessive water damage, they'll probably need to be removed and replaced. In many cases, you can replace only the damaged areas. In order to do this, you'll need to be able to identify and buy identical replacements. Of course, this isn't always possible.

Repair Hardwood Floor Scratches

Minor scratches in wood floors often can be buffed away using steel wool or hand-sanding with progressively finer sandpaper grits.

When sanding minor scratches, restrict your sanding to the scratched area, feathering only slightly into the surrounding surface. Always sand or buff only in line with the wood grain.

Polyurethane finishes are difficult to sand. Try using a scouring pad dipped in mineral spirits or use a sanding screen.

Don't ever wax a wood floor that has been coated with a polyurethane finish—this will make it impossible to re-coat in the future without having to sand the floor first.

If paste wax will adhere to the finish, you can use it to hide scratches, and the wax is available in clear, honey tone, or brown to match most any wood floor. Wood-repair wax sticks may help to fill deeper scratches and dents.

Fix Hardwood Gouges and Dents

You can sometimes raise small dents by placing a few drops of water on them and allowing the wood to swell back to its original shape. Applying mild heat with an iron on a thick cloth or a heat gun helps this process along.

For deep gouges or dents, you can use a wood floor filler and wood stain to repair the damaged area. Before applying the filler, tape off the damaged area so you don't accidentally apply filler where it doesn't belong.

Mix equal parts of the epoxy-based filler and apply to the gouge with a putty knife. Allow to dry. Then sand and finish.

HOW TO GET STAINS OUT OF HARDWOOD FLOORS



Many people choose hardwood over other flooring options because of its aesthetic appeal and durability. All you need to do is to make sure the surface looks flawless all the time.

However, the task can be a little tricky, particularly when you want to remove stains. Using inappropriate products, tools or methods can damage the surface of hardwood

floors. No wonder people avoid DIY methods to remove stains or deep clean such a floor.

They opt for professionals who offer the best end of lease cleaning Melbourne. Although the experts are known for cleaning a rental property at the end of lease period, you can contact them anytime to clean your home. If you want to save your money and perform the task yourself, you must have the correct knowledge.

Read on to know how to get stains out of hardwood floors.

Dish Detergent

The product is generally used to clean dirty dishes, but you can also use it to remove stains and dirt from hardwood floors. If you find food stains, nail polish or oil stains on the floor, you can use dish detergent without hesitation. It can break down the stain and make it easier for you to remove it from the surface.

Make sure you rinse the spot properly afterwards, so no residue is left. Mix the detergent and warm water in a small bucket. After that, dip a rag in the solution and wring it well before rubbing the stain. Repeat the process until the stain disappears. Finally, use a dry cloth to remove excess moisture from the spot.

Phenol Solution

If you are a pet owner, then pet accidents are something that you often have to deal with. The stains are not only difficult to remove but also stink a lot. It is one of the most common causes of bad smells at home.

However, you can eliminate the stains and bad smells by using a 5% phenol solution. It is readily available at most home improvement and hardware stores. Phenol solution works exceptionally well as a cleaner and destroys the odour-causing bacteria in pet urine. Pour the solution in a small amount on the spot and rub it with a sponge before wiping the spot with a damp cloth.

Baking Soda

Baking soda can be beneficial for removing dirt and stains from various surfaces, including hardwood floors. It can be very effective when you are looking for options to remove dye stains from hardwood floors. Mix baking soda with water and prepare a thick paste before spreading it over the stains. Wait for a few minutes, and then gently rub the spot with the help of a soft sponge. After that, use a damp cloth to wipe the spot.

If you hire trained cleaners who offer affordable end of lease cleaning in Melbourne, you will see that they also follow a similar approach to get rid of the stains.

Hydrogen Peroxide

One of the best and safest ways to get rid of hardwood flooring stains is using hydrogen peroxide. It is highly recommended when dealing with stubborn stains like wine stains. Hydrogen peroxide is highly effective because it has the ability to pull the stain out of the wood grain.

First, take a soft rag and soak it in hydrogen peroxide. Then place it carefully only over the stained spot. After that, leave it for around 5 to 6 hours and remove the rag. Finally, clean the area using a clean rag to ensure there is no hydrogen peroxide residue on the spot.

White Vinegar

White vinegar is one of the best eco-friendly cleaning products for home. They can eliminate the most stubborn stains from numerous surfaces, including hardwood stains. The acid in the vinegar makes it so effective against the tough stains, but it doesn't cause any harm to the hardwood flooring. It is a perfect solution to remove dark marks or stains.

First, mix vinegar and cold water in a bowl. Then soak a few soft rags in it properly. After that, you must place the first rag over the stained spot and wait for some time. At last, remove the rag and place another one on the spot. Put a little pressure to wipe the spot.

Isopropyl Alcohol

Do you know how to deal with a permanent marker stain on the hardwood floor? Well, in this situation, isopropyl alcohol can be beneficial. Pour it on a cloth and rub the spot in a circular motion. After that, take a clean rag, soak in warm water and wring it properly before rubbing the marks on the surface. Finally, buff the spot with a dry cloth.

HOMEMADE WAYS TO REPAIR A WALL



Repairing a wall using homemade materials is possible when the hole is small, the damage is minimal and the wall is constructed of drywall. Stucco, plaster and panel walls are not easily repaired, and even less so using materials lying around the house. If you have a few small holes or dings in a drywall wall, there are a few ways to repair them and prepare the area for a coat of paint.

Nail Dimples

A protruding nail in drywall can be an easy repair, if handled properly. Use a flat head hammer to gently tap the protruding nail back into the drywall so its head is even with the wall. As long as the surface of the nail can lie flat against the wall, the nail head can have a layer of primer applied over it and the area can be repainted.

Nail Holes

Small nail holes in drywall can be filled in using soap or toothpaste. It sounds bizarre, but the materials dry to form a finish similar to joint compound. Squeeze a small amount of white toothpaste into the hole and smooth over the surface using a putty knife or index card. White bar soap can be used in a similar fashion. Dampen the bar of

soap and rub it over the hole until it is filled. Use an index card to remove the excess material.

Homemade Patch

If a hole in the wall is large, meaning 1 inch or wider in diameter, use a piece of printer paper in conjunction with traditional joint compound. Tape the printer paper over the hole and apply a thin layer of joint compound over the surface of the paper and at least 3 inches beyond the edge of the paper on all four sides. Sand the surface smooth before applying paint.

Homemade Joint Compound

Make your own joint compound. Joint compound is the clay-like material that is used to patch holes, bridge gaps and seal seams in drywall. Mix a tablespoon of flour, a teaspoon of salt and a few droplets of water in a small container. Mix thoroughly until it forms a paste and apply to the hole or crack as you would joint compound. Use a putty knife or index card to remove the excess while it is still wet and allow the rest to dry. The surface can be lightly sanded smooth.

CONCLUSION

If you follow these tips and do some of the work yourself, you'll be able to keep your house in good shape without spending too much money. Keep in mind that there will always be unexpected issues with your home. However, if you keep up with regular upkeep and plan for emergencies, these problems won't be as hard on your wallet!

REFERENCES

Tools for Building and Remodelling | This Old House | Retrieved Date - 19 Feb 2023
<https://www.thisoldhouse.com/tools/21072548/tools-for-building-and-remodeling>

What to Consider When Choosing Construction and Building Materials | Retrieved Date - 19 Feb 2023
<https://www.familyhandyman.com/article/building-materials/>

Renovations and additions | Australian Government | Retrieved Date - 20 Feb 2023
<https://www.yourhome.gov.au/buy-build-reno/renovations-and-additions>

A Beginner's Guide To Ceiling Repair | Retrieved Date - 20 Feb 2023

<https://diyprojects.com/ceiling-repair-faq/#waterdamaged>

How to Repair a Hardwood Floor | Retrieved Date - 20 Feb 2023

<https://www.hometips.com/repair-fix/hard-wood-floors.html>

How To Get Stains Out Of Hardwood Floors | Retrieved Date - 20 Feb 2023

<https://www.bondcleaninginmelbourne.com.au/how-to-get-stains-out-of-hardwood-floors/>

Homemade Ways to Repair a Wall | Retrieved Date - 20 Feb 2023

<https://www.hunker.com/13418439/homemade-ways-to-repair-a-wall>