5 STEPS FOR REBUILDING
AFTER A WILDFIRE

- 1. GO SLOW
- 2. WATCH OUT FOR SCAMMERS
- 3. UPGRADE WITH RESILIENCE
- 4. LOOK AT ENERGY EFFICIENCY
- 5. CONSIDER PASSIVE HOUSE

May 2025

A Passive House Rebuild, Colorado

In the Aftermath of a Climate Disaster:

Guidance on Avoiding Misinformation and Next Steps

A Passive House Network Brief

The Passive House Network

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Introduction

The loss of a home at any point is a difficult and emotionally fraught time, no matter the circumstances. This is especially true after a climate disaster like a wildfire. While there is lots of information on rebuilding, much of it can be overwhelming. At the same time, if you don't stay informed, it's possible that bad actors can take advantage of your predicament. The Passive House Network has created this resource to help you navigate the aftermath of losing your home. We hope you'll find these tips and recommendations useful as you move forward with your rebuilding journey.

After the Marshall Fire

In December of 2021, the Marshall Fire swept through the dry, windy suburbs of Boulder, Colorado. Over 1,000 structures were destroyed in what would be named as the most destructive fire in Colorado history.

After the flames were extinguished and the damage was assessed, a community faced the question of how to rebuild. Architects, designers, builders, developers, and policymakers were faced with the challenge of creating safer, more resilient neighborhoods. This brief contains advice from lessons learned during that process.

1. Go Slow

The emotional trauma of losing your home to a climate disaster can be difficult to navigate. Even if you and your loved ones are safe, it's natural to want to put the whole ordeal behind you as quickly as possible. However, when it comes to rebuilding, it's best to do your research to avoid scammers, high fees, and subpar work.

Additionally, taking a strategic approach with your rebuild will allow you the time to evaluate the best path forward. You might be able to take advantage of building incentives to save some money while still prioritizing a building that keeps you safer, healthier, and more comfortable. You may also be able to create a more efficient building that will help you save money on your future utility bills. Your Homeowner's Insurance may help. We encourage you to view our Homeowner's Insurance & Wildfire Preparedness Guide for more information.

2. Watch Out for Scammers

It's an unfortunate truth, but it's not uncommon for climate disasters to bring out scammers, especially when there is a large amount of rebuilding to do. Here are some red flags to watch out for among contractors or developers you are looking to hire:

- **Large Upfront Deposits** - especially before any work begins. A 10% deposit of the total contract amount is normal, but this can vary by state. Check your state laws before you transfer any money. Avoid cash-only payments, as other methods are more secure and can offer you additional protection. Understand how the deposit is to be used and managed. Typically, a deposit is held by the contractor and used for deposit requirements from vendors and trade partners.
- **Out-of-State Companies** - occasionally, people will travel from out of state to disaster-affected areas to try to make some quick money. They might leave town before the job is complete or cut corners to speed the work along. Someone in your local community who cares more about their local reputation is more likely to put the care into your home that it deserves.
- **Significantly Lower Bids or Quicker Timelines** - if it seems too good to be true, it probably is. Someone looking to scam you is more likely to offer you a better deal or quicker turnaround because they know they won't deliver on their promises. They may also try to pressure you into making a quick decision.
- **Unlicensed or Inexperienced Contractors** - make sure you ask for a contractor's license before signing on with them. You can verify their license with the Contractors State License Board. Additionally, make sure they're familiar with the local permitting process. Ask them questions and verify the answers.

Take your time in verifying contractors. Ask for references from past clients and speak with them about their experiences. You can ask how well the contractor met deadlines, stayed within budget, and paid attention to minor details. Research the contractor online for reviews from Google or the Better Business Bureau. If the contractor doesn't have an online presences, this could be another red flag.

The 2023 PHN Building Tour, Colorado

3. Upgrade with Resilience in Mind

While there's no such thing as a "fireproof building," making a few intentional design choices in your rebuild can boost the structure's resilience and make it more likely to weather the next wildfire unscathed. For instance, a simpler form with fewer enclosure junctions–such as the ins and outs of dormers, eaves, overhangs, rooflines, and floorplans–can prevent burning embers from lodging into the structure. Continuous insulation, airtightness, and high-performance windows, doors, and ventilation systems can also help keep smoke and embers out of the house, reducing the chance of fire catching.

4. Look at Energy Efficiency

As we work to mitigate and adapt to climate change, which is causing an increase in natural disasters across the country, it's important to consider the role our buildings play. The building industry accounts for **as much as 37% of our greenhouse gas emissions**, but there's a lot we can do to bring that figure down. Building above our current codes and creating more efficient buildings will make a tremendous difference.

There are many energy standards out there, and it can feel overwhelming to research their pros and cons. We recommend looking into **a recent report by Emu Passive** that investigates the ability of 12 different building standards to deliver resilient, healthy, and efficient buildings. You can also watch **a video presentation** on the research from the report author that focuses on buildings in California.

Increasing the energy efficiency of our buildings is an important step we can take to protect ourselves from the worsening effects of climate change. While every step towards a more efficient building is a win, remember that your building is a long-term investment. The more you can do to boost your efficiency, the more money you'll save in utilities in the long run, and the better off our environment will be.

5. Consider Passive House

Passive House is a high-performance building standard that can be combined with fire-resilient design to create a comfortable, healthy, resilient building that's also energy efficient. Many of the techniques of fire-resilient building are also **foundational to the Passive House standard.**

Palo Alto Passive House, FGY Architects

Passive House brings additional benefits that are more difficult to fully achieve with other energy standards, including:

- **Thermal Comfort** - your house will stay at a comfortable temperature, even if you lose power. In extreme temperatures, you'll stay safer for longer if the power takes a while to come back on.
- **Acoustic Comfort** - you won't have to hear the noise from a busy street or a neighbor's barbecue. A Passive House preserves your peace and quiet.
- **Healthier Air** - you can keep out pollution, dust, mold, and other allergens, while still maintaining fresh, continuous airflow. You can create a healthier indoor environment for your loved ones.
- **Smoke-Tightness** - if wildfire smoke or other pollutants are causing poor air quality in your aera, your Passive House will keep you safe indoors. **Research has shown** that combining Passive House design with ventilation units outfitted with the correct air filters effectively prevents wildfire smoke damage in home.
- **Less Maintenance** - with an airtight structure and high-performing windows and doors, you can be sure you're avoiding harmful mold and water damage that can be costly to repair.

We encourage you to check out our resources on Passive House and Fire Resilience, including our **wildfire resilience webinar** and **blog post**.

Getting Started

If you'd like to explore rebuilding your house to the Passive House standard, we recommend contacting a local Certified Passive House Designer or Consultant to learn more. You can use our Member Directory to find a Certified Passive House Designer or Consultant and the Emu Alumni Directory to find a Certified Passive House Tradesperson in your area.

Passive House Rebuilding FAQ

Q: Are Passive Houses more expensive to build?

A single-family Passive House can be 5-10% more expensive than a standard building, but that extra cost also comes with cost savings on utilities that are locked in for the life of the building. Often, it can pay for itself in just a few years. There are also many building incentives that prioritize energy efficiency that you can take advantage of when building to the Passive House standard. Check out our Building Incentives page for a list of incentives that may apply to your building.

Q: Do they look plain or boxy?

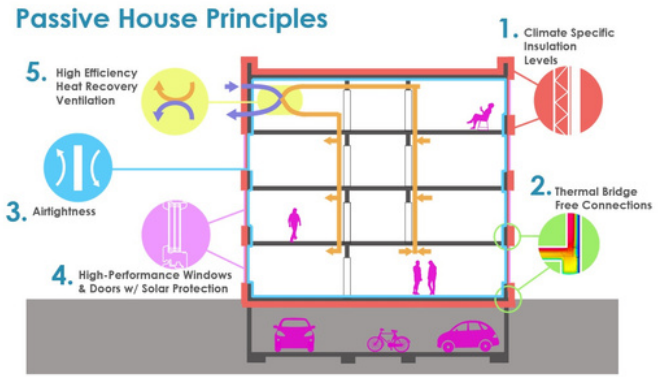
Passive House buildings can be traditional-looking or modern, and come in all sorts of shapes and styles. You can look through the Passive House Database to find a variety of certified Passive Houses that look beautiful and perform with excellence.

Q: Are Passive Houses very complicated?

Passive House isn't rocket science. It's simple building science, expertly applied. Passive House focuses on five design principles to deliver a high-performance building with predictable results:

- **Climate Specific Insulation Levels** - your house is insulated exactly as much as it should be. This isn't a one-size-fits-all approach. Passive House takes the specific geography of your house (including the amount of sunlight you'll get) and creates a design that's just for you.
- **Thermal Bridge Free Connections** - we're not heating or cooling the neighborhood. Reducing thermal bridges means you only use energy to heat and cool what matters, keeping the indoors comfortable and preventing energy loss.
- **Airtight Seal** - keep the outside, outside. Prevent uncomfortable temperatures from coming into the home. As an added bonus, you can also rest safely knowing that dust, allergies, mold spores, and pollution are also kept out.
- **High-Performance Windows & Doors** - minimize drafts and maintain the integrity of the airtight seal. While windows can be opened when outside weather permits, you can be sure that there are no leaks when the weather takes a turn.
- **High Efficiency Heat Recovery Ventilation** - Heat Pumps and Energy Recovery Ventilators heat and cool your air more efficiently, ensuring the comfort you're used to while significantly reducing your energy use and utility bills.

With a Certified Passive House, you can be certain your house will perform reliably, predictably, and efficiently.



Q: Should I just add solar panels to "make it green?"

Adding renewables energy to your house is helpful for our efforts in creating a more sustainable world, and is in fact a requirement for Passive House Plus and Premium Certification. However, solar panels alone only address half of the problem. To create a truly sustainable building and approach net-zero emissions, we must reduce the energy needed to provide a safe and comfortable interior. That's where Passive House comes in.

Q: I don't have a sunny lot. Will it still work?

The Certified Passive House Designer or Consultant on your project will tailor your house to the conditions of your lot. They have the expertise needed to ensure that Passive House can work anywhere.

Q: Passive House is German, so does it make sense to do in the United States?

Passive House is an international building standard that has been applied worldwide, from Germany, to Australia, to Canada, to Latin America, and yes, even the United States. You'll find plenty of examples of Passive House buildings in the U.S. on the Passive House Database. Passive House relies on building science that always works, regardless of weather, climate, or local geography.

Midori Passive House, Essential Habitat

Special Thanks

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Scan for more Fire Resilience Resources