

FIX IT UP!

Bruce Turner

Earthshaking Revelations

I've got some stunning news for you. Are you ready? We live in earthquake country.

Most of us, of course, don't need to be told the big one is coming... someday. Homeowners have become acutely aware of their vulnerability – if Loma Prieta didn't do it, Northridge sure did, especially with the stories afterwards of homeowners being stiffed by their insurance companies and finding themselves broke and houseless. As we observe the 100th anniversary of the 1906 San Francisco earthquake, it's a good time to look at worthwhile ways to protect ourselves from seismic disaster.

When we retrofit our homes to prepare for earthquakes, what we hope is that our houses maintain enough structural integrity that we can survive inside them when they fall. What we REALLY hope is that the house also stays sufficiently intact that we don't face financial disaster when it's over.

The most catastrophic damage in an earthquake is the result of a house sliding off its foundation – and that's a preventable catastrophe. Bolting your house to the foundation will dramatically increase the probability that the house will be either unaffected or lightly damaged by a quake.

All new homes today in our seismic zone are required by code to be bolted to the foundation, and anytime I do a substantial remodel on an older home, I strongly recommend it to the owner. At a cost of less than ten grand, it's the single most cost-effective measure you can take to protect your family and your investment.

And if even that budget commitment sounds too expensive, here's the good news – with the right kind of help, retrofitting your home can be a do-it-yourself job. I'm serious.

You need a rotodrill or other drill that will penetrate the concrete foundation. You need a wrench, some 5/8" foundation bolts (that's the building code today), an epoxy gun and some epoxy.

Before you start, consider hiring a structural engineer to provide an inspection and report – it's well worth the comparatively minimal cost to have an expert to guide you. Then go and see a completed retrofit job, so you know what the final job should look like, or better yet, find a job in progress and watch the pros do it.

When you're ready, put on your goggles and a dust mask and get to work under the house. You'll drill between the floor joists through the mudsill and into the foundation. Drill the holes (you'll want to oversize the holes), then epoxy and anchor the new bolts into the foundation. It really is that simple.

There are other steps you can take in retrofitting your house – strengthening post and beam connections, for example – but the absolute best first step is making sure your house and your foundation will never part company. We'll talk more about foundations next time.

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