Address: _____

DISASTER-SPECIFIC CHECKLISTS

Earthquake

Review these considerations with your real estate agent, home inspector, contractor, or other trusted advisor if the home is likely to experience an earthquake.

Location Checklist

- Is the home in an earthquake-prone region? ☐ YES ☐ NO
  - » Earthquake hazard maps identify seismic design categories (SDCs) that show the likelihood of different intensity shaking and provide insights into earthquake risk.
- Is the home in an earthquake fault zone? ☐ YES ☐ NO
  - » Avoid homes in an earthquake fault zone, homes at risk of liquefaction or moving like a liquid during earthquake shaking (including homes built on filled land), or homes at risk of a landslide from an earthquake.
- Is the home in tsunami inundation, hazard, or evacuation zones? ☐ YES ☐ NO

If you answered yes to any of the above questions, speak with a qualified, licensed engineer, inspector, or local code official to determine the best course of action to protect your home from disasters OR consider a home in another location.

Construction Checklist

Home shape and design are critical for earthquake resilience. Use the checklist below to determine if your home is built to be resilient to potential disasters.

☐ The home is not located on a hillside or at the base of a hillside.

» Homes on hillsides, including those at the base of hillsides, are highly vulnerable to earthquake-related damage.

☐ The home is located on hard rock as opposed to soft, loose solid which may shake with more intensity.

- [ ] The house is constructed with regular wall design.
  - » Irregular wall design or shapes can result in more damage during an earthquake.
- [ ] Living areas over garages (soft stories) are properly supported.
- [ ] The foundation sill plate is anchored adequately.
- [ ] Cripple walls supporting the home above grade and/or the basement are built and braced properly.
- [ ] Pier-and-post foundations are braced.

Check these wall features:

- [ ] Hold-down connectors secure the wall's base to the floor and foundations.
  - » For wood-frame or light gauge steel construction, structural panels for sheathing with a proper attachment pattern provide important protection from earthquake shaking.
- [ ] For masonry walls, all cells with rebar reinforcement are grouted and consolidated.
- [ ] Concrete, masonry walls, and insulated concrete forms are reinforced with reinforcing steel.
- [ ] Wall coverings like masonry, brick, and stone that add weight to a home are anchored correctly.
- [ ] Homes made of wood have sheer walls or a moment-resistant frame.
- [ ] Masonry is reinforced to be resistant to earthquake shaking.

Check the roof-to-wall and wall-to-foundation connections to ensure they are:

- [ ] Made using the correct product
- [ ] Adequately spaced
- [ ] Properly installed

Check masonry and stone veneers:

- [ ] Masonry or stone veneers above four feet tall, such as those on fireplaces or exterior facades, are reinforced and resilient to earthquake damage.
  - » Masonry or the flue liner may be cracked from an earthquake even without signs of damage.

Evaluate external structures:

- [ ] Balconies and decks have been evaluated by an engineer to identify strengthening retrofits if needed.
  - » Balconies and decks increase the earthquake load on the home and can lead to damage.

Check roof features:

- [ ] Roof sheathing and coverings are properly installed.

» Properly installed roof sheathing and coverings can help avoid damage during earthquake shaking. Improperly installed roof coverings, especially heavy types like slate and tile, could fall during an earthquake and cause injury.

Depending on the age of the home, you may want to undertake certain structural retrofits and upgrades at the time of purchase. Earthquake-specific options include:

- ☐ Reinforcing exterior unreinforced masonry walls.
- ☐ Strengthening soft and weak story construction.
- ☐ Reinforcing cripple walls.
- ☐ Upgrading foundation connections.
- ☐ Reinforcing brick and masonry chimneys.
- ☐ Reinforcing crawl spaces.
- ☐ Bracing the water heater.
- ☐ Installing an automatic gas shut-off valve.

Maintain your home to keep it ready for an earthquake by:

- ☐ Securing heavy objects that could fall and cause injury during an earthquake.
- ☐ Installing latches on cabinet doors to help prevent the contents from falling out.
- ☐ Installing bracing or a thin wire across the front of shelves to keep contents in place.
- ☐ Securing major appliances and electronics.
- ☐ Securing heavy furniture and electronics with flexible fasteners to prevent them from falling in living or sleeping areas or blocking exits.
- ☐ Installing flexible connectors on gas appliances to help avoid detached gas lines in earthquake shaking.
- ☐ Locating the gas shut-off valve, familiarizing yourself with how to use it, and keeping a gas valve wrench accessible.

Ensure all items hanging on walls are secure by:

- ☐ Ensuring heavy items are not hung above places where people are seated or sleeping.
- ☐ Using closed hooks or earthquake putty to hang items.
- ☐ Ensuring eye hooks penetrate the wall and the studs.
- ☐ Using two hooks to provide more stability for large pictures and mirrors.
- ☐ Ensuring mounting hardware is securely fastened to the frame.