

Earthquake_Amplitudes_1999.txt

The following e-mail you may find of interest. It indicates a maximum ground acceleration of about 1 g (of gravitational acceleration). Beyond 25 km ground motion amplitude is inversely proportional to distance. Above .4 g many California engineers prefer shear resistant buildings, but distrust solid shear walls.

From

http://vulcan.wt.usgs.gov/Glossary/Seismicity/description_magnitude.html

Description of earthquake magnitudes and intensity we find a magnitude 5 earthquake at about 10 kilometers from the epicenter to be 1.1 millimeters. If we use the increase by 10x for each one magnitude change, then for magnitude 9 we would get 11 meter (about 36 ft) amplitude of motion. If you are closer than 10 kilometers to the epicenter then this is some factor bigger. None of these references talk about what happens when the whole tectonic plate moves. The experts simply have no experience with it.