Evaluation of Earthquake Insurance

Board Evaluation of Necessity for Earthquake Insurance

- The Board evaluates all contracts to ensure that they address the needs facing the community.
- In reviewing Insurance contract, the Board researched the likelihood of earthquakes in our area, gathered facts regarding terms of the coverage, sought information from professionals.
- Board then did a risk assessment regarding the need for the coverage.
- The community has a list of new projects and possible expenditures for the coming year. To make the best decisions of what is added to the budget, all expenditures are evaluated & prioritized by the Board – Are they necessary, cost effective and of benefit to the community?
- Considering all information, the Board voted not to continue with the Earthquake coverage.

“Although it is well documented that the zone of greatest seismic activity in the United States is along the Pacific Coast in Alaska and California, it may be surprising to most people that an average of six earthquakes are felt each year somewhere in New England, and that damaging earthquakes have taken place in historical time in New England.”

Commonwealth of Massachusetts

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- A 2.1-magnitude earthquake rattled North Plymouth, Massachusetts Tuesday (December 3, 2019) around 5:30 p.m., according to the United States Geological Survey.

- The temblor was reported 1.1 mile south-southwest of North Plymouth at a depth of 8.9 kilometers.

- Massachusetts Emergency Management Agency said they had not received reports of injuries or damage in connection to the earthquake.

Richter Magnitude Earthquake Effects

- 2.5 or less Not felt or felt mildly near the epicenter, but can be recorded by seismographs
- 2.5 to 5.4 Often felt, but only causes minor damage
- 5.5 to 6.0 Slight damage to buildings and other structures
- 6.1 to 6.9 May cause a lot of damage in very populated areas
- 7.0 to 7.9 Major earthquake; serious damage
- 8.0 or greater Great earthquake; can totally destroy communities near the epicenter

•The highest percentages of PGA (Peak Ground Acceleration) areas in the Commonwealth are located in Northern Middlesex and Essex Counties; however, the PGA percentages are very low compared to the national averages.

•PGA expresses the severity of an earthquake and is a measure of how hard the earth shakes (or accelerates) in a given geographic area.

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- According to U.S. Geological Survey (USGS) data, damage due to an earthquake will begin at a level of ground shaking of approximately 0.1 g. According to this scale, the damage that can be expected from this range of ground shaking will vary from plaster cracking and disruption of building contents, to moderate damage to poorly constructed buildings.
- It should be noted, however, that the expected probability of such a level of ground shaking is extremely low, and according to the USGS data can be expected to occur once every 2,476 years

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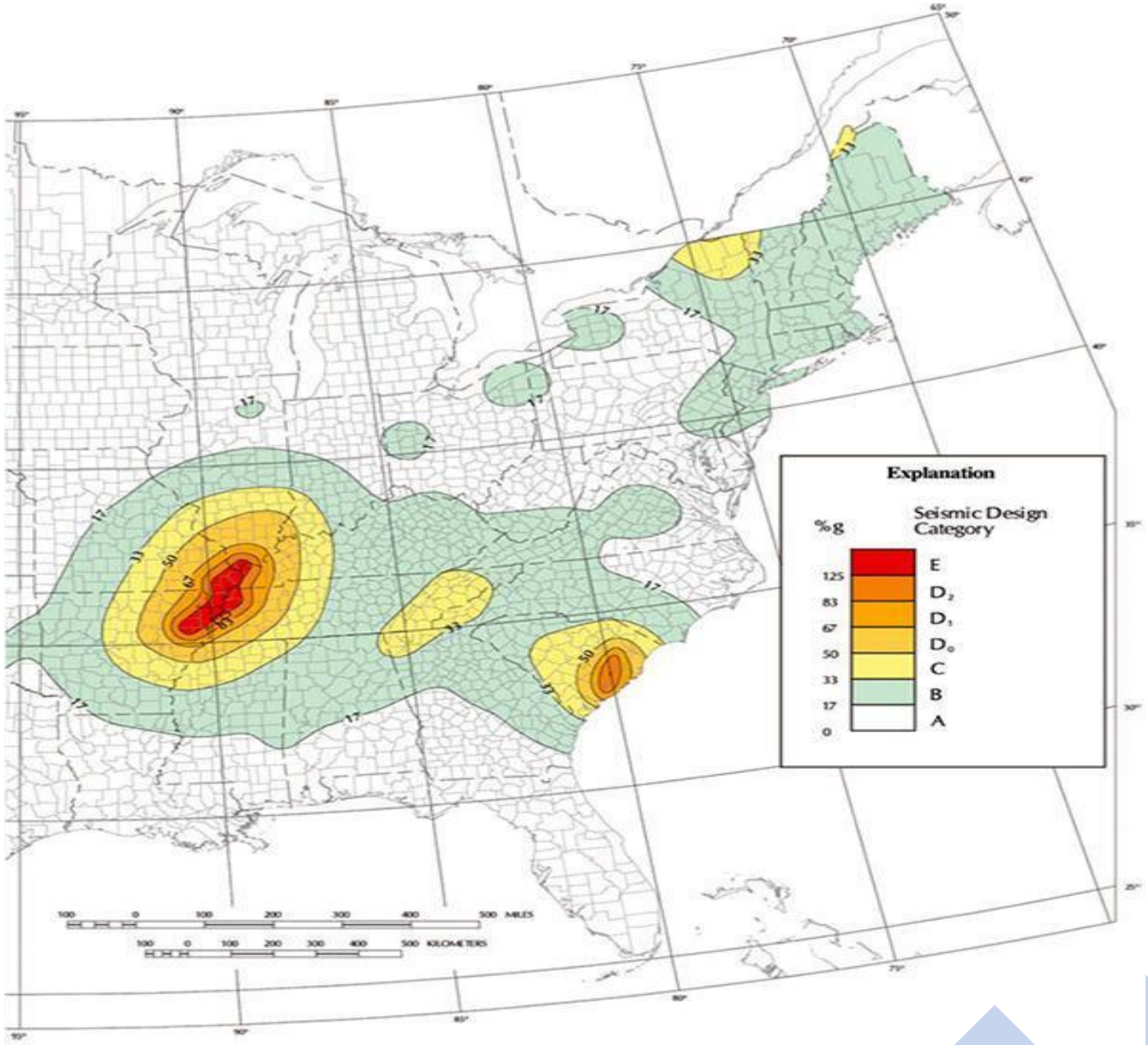
“Because of this low frequency of occurrence and the relatively low levels of ground shaking that would be experienced, the entire Commonwealth can be expected to have a low to moderate risk to earthquake damage as compared to other areas of the country.”

Commonwealth of Massachusetts

State Hazard Mitigation Plan


Explanation
%g
Seismic Design Category
125
83
67
50
33
17
0
E
D2
D1
D0
C
B
A
100 0 100 200 300 400 500 MILES
100 0 100 200 300 400 500 KILOMETERS

SDC/Map Color	Earthquake Hazard	Potential Effects of Shaking
A/White	Very small probability of experiencing damaging earthquake effects.	
B/Gray	Could experience shaking of moderate intensity.	Moderate shaking—Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight.
C/Yellow	Could experience strong shaking.	Strong shaking—Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built structures.
D/Light Brown D1/Darker Brown D2/Darkest Brown	Could experience very strong shaking (the darker the color, the stronger the shaking).	Very strong shaking—Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures.
E/Red	Near major active faults capable of producing the most intense shaking.	Strongest shaking—Damage considerable in specially designed structures; frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations. Shaking intense enough to completely destroy buildings.

Cape Ann Earthquake in 1755

- Magnitude of 6.3
- Damage to chimneys, Faneuil Hall tower damage
- Building codes (1973) now require all new construction to withstand a 6.3 earthquake
- Wood building construction would do well if struck by earthquake – wood bends and sways
- Massachusetts not nearly under same threat as California

Boston Magazine 11/24/2020

State Building Code Information

- According to state board of building regulations there are no requirements for protection from seismic activity in the state of Ma because the chance of a damaging earthquake for MA is considered nil.
- Wind provisions are part of State Building Codes. These codes consider wind and shaking. Buildings are required to sustain up to 136 mph wind and a 6.3 earthquake.
- Large hold down bolts to the foundation and heavy-duty bracing are used to mitigate any sway or tilting. (These were required in Summer Reach construction.)
- Wood frame buildings handle shaking from land movement the best.

  - State Board of Building Regulations and Standards

“Extensive studies of the Boston area concluded that chances are small that we will experience a destructive earthquake during our lifetimes, called a 2,500-year earthquake.”

Tufts Now, February 2012

According to FEMA,

"If impacted by an earthquake, most homes would experience damage that does not exceed their insurance deductibles, meaning that even with insurance's high rates, insured homeowners would not receive money from their policy to address the damage."

Commonwealth of Massachusetts

State Hazard Mitigation Plan

Considerations regarding Earthquake Insurance for Summer Reach

- Coverage has a deductible of $200,000 per event
- Limit for Earthquake insurance is $10,000,000
- Although our state has experienced tremors – no damages have been paid out
- Very limited number of MA condos have Earthquake insurance (approximately 10 percent)

Final Thoughts/Questions

- Did you have an earthquake rider on your previous residence(s)?
  - If not, or if you don’t know, or remember, does that infer that having that coverage was not a concern to you?
- Did the information in this presentation allay your concerns about the decision to remove the earthquake rider from the Master Policy?

Thank you!