

Review of Expert Panel Report Chapter 4--Context

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Panel Report Chapter 4

- Article 4.3.1
 - buildings are designed “to survive” ground motion with return period of 500 years
 - “total collapse...while it can never be ruled out, is not expected at ground motion corresponding to the design level” (presumed to be 500 year return)
- Commentary of NZS 1170.5:2004 suggests that although buildings are primarily designed for 500 year return ground motion, there is a margin against collapse at that design level of “at least 1.5 to 1.8.” Structures should have only a low probability of collapse for shaking considerably larger than the 500 year return, up to intensities with return periods of 2500 years.

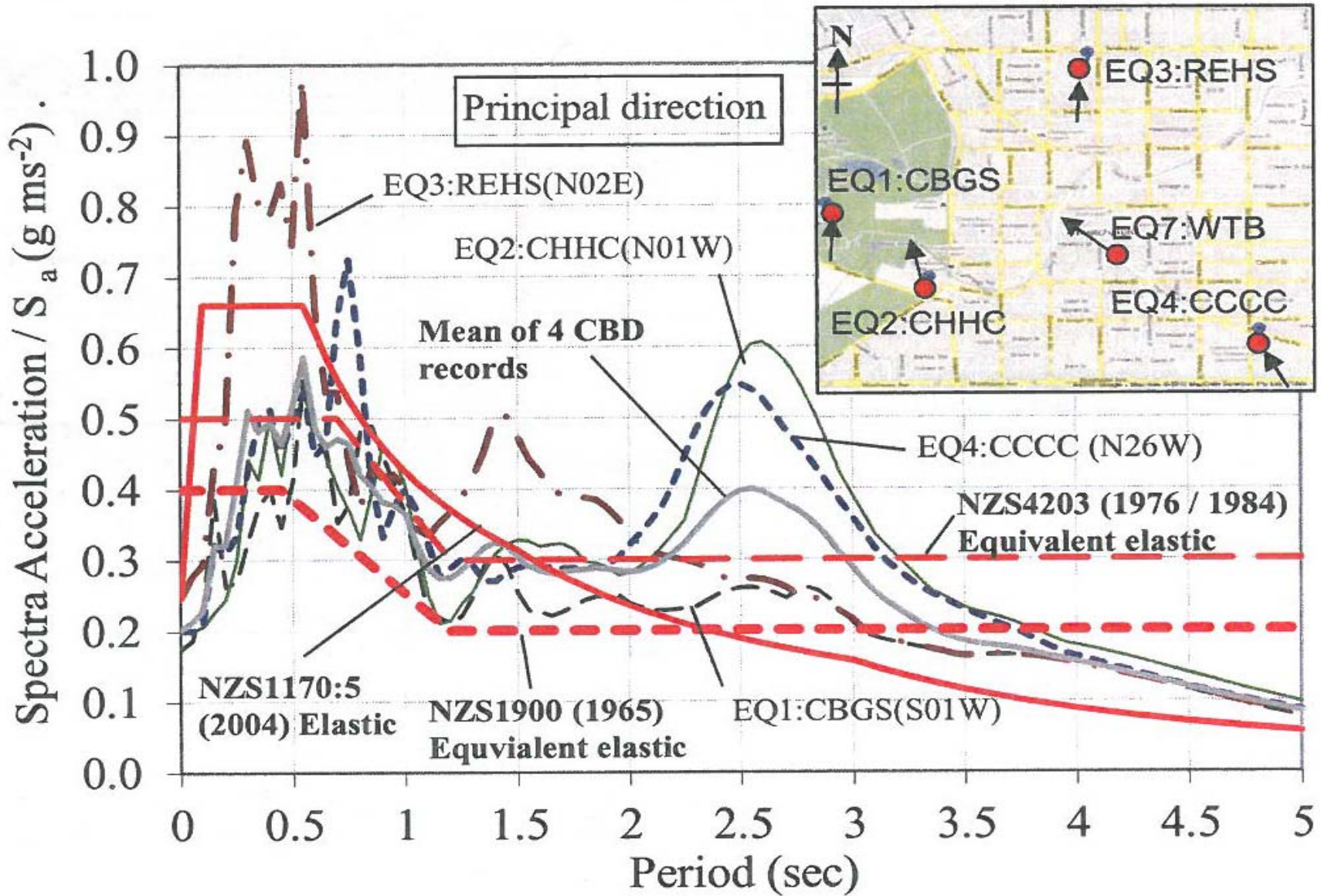


Figure 4.4 (a) Estimated acceleration response – 4 September 2010

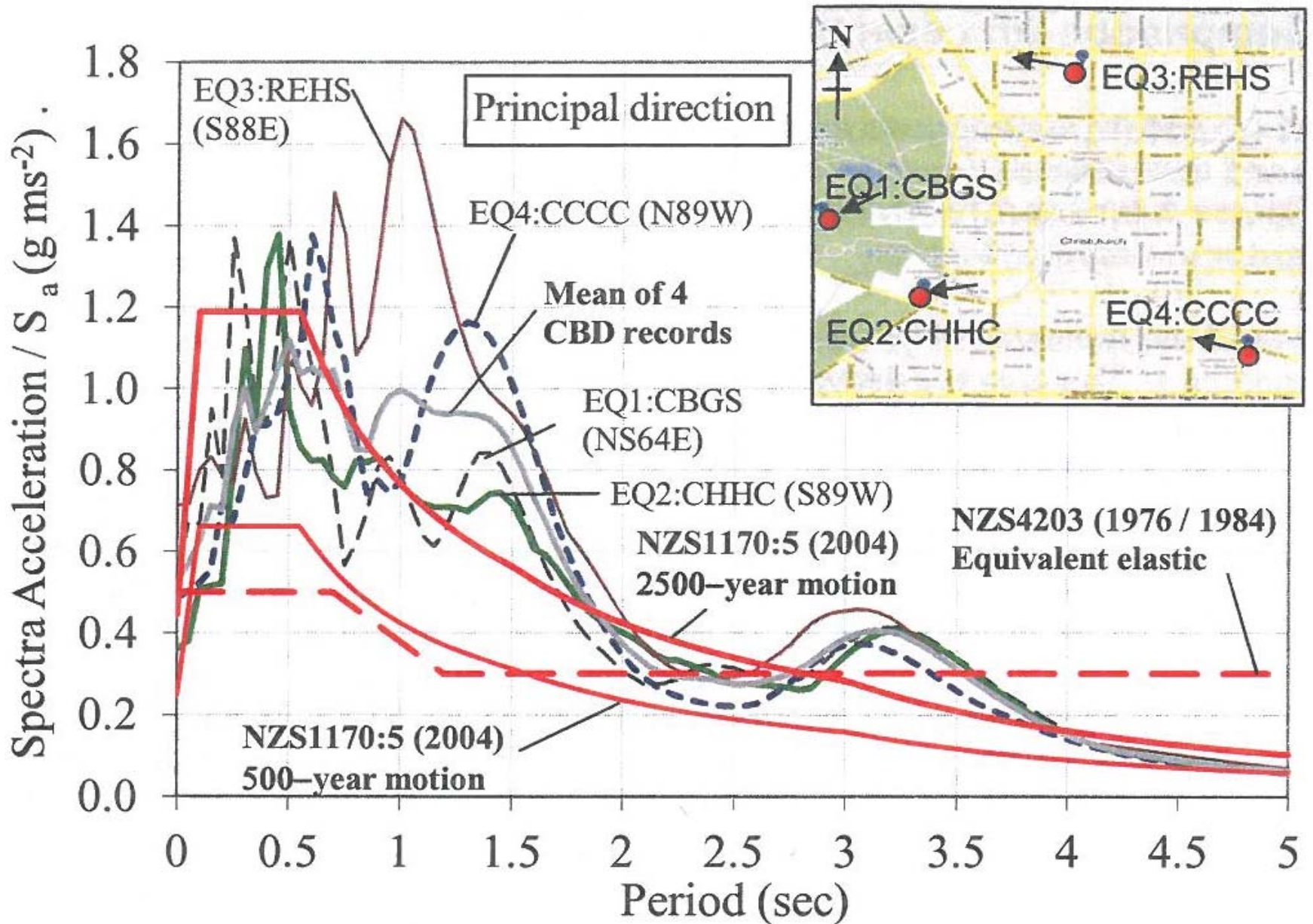


Figure 4.4 (b) Estimated acceleration response – 22 February 2011

4.4a and 4.4b drawn to same scale

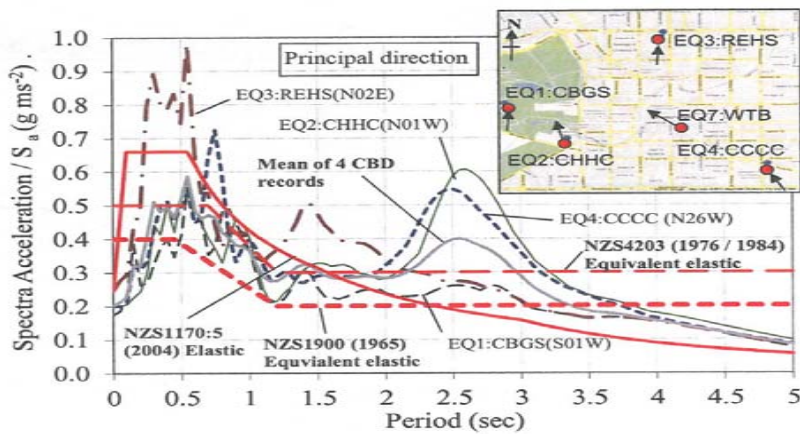


Figure 4.4 (a) Estimated acceleration response – 4 September 2010

4 September 2010

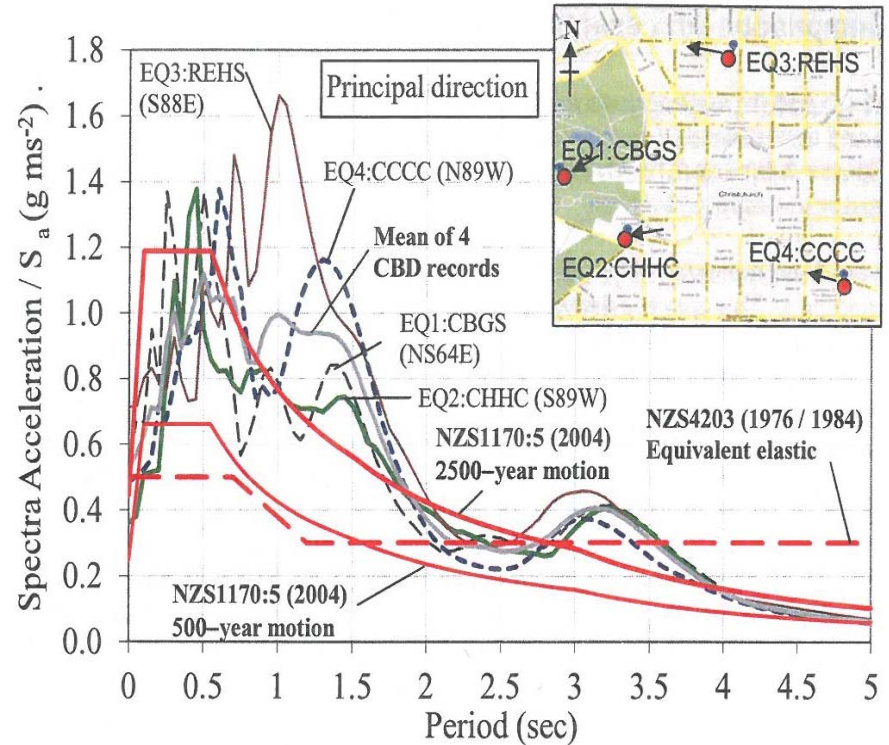


Figure 4.4 (b) Estimated acceleration response – 22 February 2011

22 February 2011