



Professional Engineers
and Geoscientists of BC
www.apegbc.ca

APEGBC Designated Structural Engineer:

Experience Guidelines for the design of buildings in seismic regions

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To demonstrate that the applicant has achieved acceptable experience with the seismic design of buildings in significant seismic regions, the applicant shall provide samples of at least three building projects, completed in the last five years, that are located in a seismic region with an importance modified short period design spectral acceleration value of $I_E F_a S_a(.2)$ of not less than 0.35 or equivalent, for which the applicant was significantly involved in the seismic design. All projects shall have a SFRS with a ductility-related force reduction factor, R_d , equal to or greater than 2 or equivalent.

Each of the projects shall have a minimum building area of greater than 600 m². If the building has a building area of less than or equal to 600 m², the seismic design of the building must be designed entirely under the scope of Part 4 of the BCBC/NBC or equivalent.

Special consideration may be given to candidates who have experience in the seismic design of buildings only at sites with $I_E F_a S_a(.2)$ less than 0.35 provided the candidate can demonstrate that he has acceptable knowledge in the seismic design of building structures either through an interview or submission of relevant evidences.

For each of the three projects, the following information shall be included:

1. Seismic design parameters including the site class and site spectral design acceleration values. For building projects outside of Canada, a demonstration of their seismic equivalencies to the above stated seismic requirements, $I_E F_a S_a(.2)$ of not less than 0.35, ductility level and building area.
2. A description of the Structural configuration and foundation issues of the building project.
3. A description of the SFRS and the rationale in its adoption.
4. A description of the seismic load path of the building including the specific load path in the roof and floor diaphragms of the structure.
5. A description of the method of analysis and the rationale in its adoption.
6. A general description of the seismic issues related to the building projects including system restrictions, deflection controls and foundation provisions.
7. A set of structural floor plans and related seismic details on pdf files.

For each project, the applicant shall either be the engineer of record of the building design or be significantly involved in the seismic design of the building structures. If the applicant is not the engineer of the record of the building structural design, the sample project shall be endorsed by the engineer of record of the building design that the applicant has been significantly involved in the seismic analyses and design of the building project.