

CONDO LIVING

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Ask an Expert

Condo owner bothered by elevator's roaring

Q I live in a condominium that was formerly an office building. Although my suite is separated from the elevators by a stairwell and a garbage room directly adjacent to my unit, I can hear the roaring noise of our two elevators going up and down at any given time.

Is that normal or is there something wrong with the structure of our conversion condo? Management claimed experts in the field do not think there is anything wrong. Do you have any suggestions regarding this?

A *Condo Living* asked Best Consultants Inc.'s Martin Garskup, an investigative architect and building science specialist with more than 15 years' experience in the condominium field:

Noise, simply defined, is unwanted sound. Building codes mandate certain types of airborne sound control but do not address impact noise and vibration control.

Condominiums are designed to handle impact noise and vibration control in addition to airborne sound. Designers usually try to avoid placing noise-sensitive spaces, such as bedrooms, above, below or beside noisy spaces such as mechanical rooms, party rooms, etc.

Both a stairwell and garbage room separate the reader's suite from the elevator — yet the reader reports hearing the roaring noise of the elevators going up and down at any given time.

One explanation for the reader's problems with elevator noise could be related to the fact that the condominium was converted from an office building. The floor-to-floor height of office buildings is greater than that of typical residential buildings. Office buildings converted to condominiums thus have high ceilings.

The space above the ceilings separating the suites from adjacent noisy spaces must be well constructed to handle airborne sound as well as impact noise and vibration control. Even hairline cracks in the partitions above the ceilings can result in sound leakage into suites and complaints of noise.

The elevator noise reported by the reader does not necessarily mean that there is anything wrong with the structure of the building. Rather, the degree of sound control provided at the time of the conversion may not have been adequate in isolating the elevator noise from the reader's suite.

Interior sound isolation is based on the Sound Transmission Class (STC) rating system referenced in the Building Code. The Building Code requires a STC rating of 55 or higher for partition walls between residential spaces and elevator shafts.

Noise level guidelines for residential condominiums also consider noise-criteria (NC) curves to rate the background noise level within suites. For most condominiums, a range of NC25 to NC35 would be considered acceptable. Noise in excess of NC35 would be objectionable to most people. Sound control requires attention to detail along with a high standard of workmanship. The corporation may consider engaging the services of an experienced acoustical engineer to determine if and where sound control measures should be implemented.