



## Intent

To provide classrooms that are quiet so that teachers can speak to the class without straining their voices and students can effectively communicate with each other and the teacher.

## Requirements

### Background noise

Achieve a maximum background noise level<sup>1</sup> from heating, ventilating and air conditioning (HVAC) systems in classrooms and other core learning spaces of 45 dBA.

### AND

#### Reverberation time

Design classrooms and other core learning spaces to include sound-absorptive finishes to sufficiently limit reverberation in classrooms and other core learning spaces.

#### Case 1. Classrooms and core learning spaces < 20,000 cubic feet (560 cubic meters)t

For classrooms and core learning spaces less than 20,000 cubic feet, options for compliance include:

##### Option 1. Minimum NRC

For each room, confirm that the total surface area finished with a material with a Noise Reduction Coefficient (NRC) of 0.70 or higher equals or exceeds the total ceiling area (excluding lights, diffusers and grilles).

### OR

#### Option 2. Compliance with ANSI Standard S12.60-2002 or non-U.S. equivalent

Confirm through calculations described in ANSI Standard S12.60-2002 that rooms are designed to meet reverberation time requirements as specified in that standard. Projects outside the U.S. may use a local equivalent to ANSI Standard S12.60-2002.

#### Case 2. Classrooms and core learning spaces ≥ 20,000 Cubic Feet (560 cubic meters)

For classrooms and core learning spaces 20,000 cubic feet or greater, confirm through calculations described in ANSI Standard S12.60-2002 that rooms are designed to have a reverberation time of 1.5 seconds or less. Projects outside the U.S. may use a local equivalent to ANSI Standard S12.60-2002.