Glossary of Key Terms

Acoustic Compliance 101: Reducing Noise in Buildings

Glossary of Key Terms

- **Acoustic Sealant:** A flexible, durable material used to seal gaps, joints, and penetrations in walls and floors to prevent sound leakage.
- **Airborne Sound:** Sound that travels through the air, such as voices, music, or traffic noise.
- **Amplitude:** The measure of how powerful or loud a sound is, typically measured in decibels (dB).
- **CPD (Continuing Professional Development):** Training or learning activities that professionals undertake to maintain and improve their skills and knowledge.
- **Ctr:** A correction factor applied to the Rw value, accounting for low-frequency noise sources like traffic or bass music, providing a more realistic measure of real-world building performance.
- **Damping:** The property of materials or systems to absorb and dissipate vibrational energy, reducing sound transmission and amplification.
- **Deemed-to-Satisfy (DtS) Provisions:** Specific construction methods or materials outlined in the NCC that, if followed, are considered to meet the required performance standards without needing further assessment.
- **Direct Sound Path:** The straightforward route sound travels from the source directly to the receiver, often through a separating element like a wall.
- **Flanking Sound:** Sound that bypasses the main sound barrier and travels through indirect paths, such as through ceiling cavities, floor systems, shared services, or structural elements.

- **Frequency:** The rate at which sound waves vibrate, perceived as pitch (measured in Hertz, Hz). Low frequencies are deep sounds, high frequencies are sharp sounds.
- **Impact Sound:** Sound generated by direct impact on a structure, such as footsteps on a floor or objects dropping, which travels through the building material itself.
- **Isolation:** The physical separation between materials or structural components to prevent sound transmission through rigid connections.
- **Ln,w:** Impact Sound Pressure Level (Weighted), a single-number rating that measures the level of impact sound transmitted through a floor-ceiling system. A lower value indicates better performance.
- **Mass:** The density or weight of a material, a key property in blocking airborne sound transmission; heavier materials generally block more sound.
- **NCC (National Construction Code):** Australia's technical building code, which includes requirements for acoustic performance in buildings.
- **NatHERS (Nationwide House Energy Rating Scheme):** While primarily for energy efficiency, it's sometimes referenced in the context of overall building performance standards.
- **Performance Solution:** An alternative approach to meeting NCC requirements that deviates from Deemed-to-Satisfy provisions but can be demonstrated to achieve an equivalent level of performance through assessment methods like testing or modelling.
- **Reverberation:** The persistence of sound in a space after the original sound source has stopped, caused by sound waves bouncing off surfaces.
- **Resilient Mounts/Channels:** Flexible connections used to decouple wall or ceiling linings from the structural framing, absorbing vibration and improving sound insulation.
- **Rw (Weighted Sound Reduction Index):** A single-number rating that measures how effectively a building element (like a wall or floor) reduces the transmission of airborne sound. A higher value indicates better performance.
- **Sole-Occupancy Unit (SOU):** A building part, such as an apartment or hotel room, used for occupation by a single person or group.

- **Staggered Stud Walls:** A wall construction method where studs on each side of the wall are offset and not rigidly connected, reducing the transmission of sound and vibration through the frame.
- **Structure-borne Noise:** Sound that travels through the solid elements of a building structure, often generated by impacts or vibrations (synonymous with Impact Sound in some contexts).