Exhibit 4. Noise level explanations.

Definition of Octave band center frequency is - **Standard Center Frequencies**
According to the International Organization for Standardization (ISO), the stan dard center frequencies for octave bands are as follows:

- 31.5 Hz
- 63 Hz
- 125 Hz
- 250 Hz
- 500 Hz
- 1 kHz (1000 Hz)
- 2 kHz (2000 Hz)
- 4 kHz (4000 Hz)
- 8 kHz (8000 Hz)
- 16 kHz (16000 Hz)

Their engineer adjusted our table which had a range for these to the ISO standard, and kept the decibel ranges the same.

1. **Ambient Noise level** - Ambient noise level, also called background noise level or reference sound level, is the composite sound pressure in a given environment arising from all diffuse sources, excluding any particular sound of primary interest. It includes natural sounds like wind, rustling leaves, or water, as well as human-made sounds such as distant traffic, machinery hum, or general human activity. This baseline sound is crucial for assessing the impact of additional or intrusive noises in environmental studies, urban planning, and occupational safety.
2. **Definition of Maximum permitted sound pressure level** is -The maximum permitted sound pressure level (SPL) refers to the highest sound pressure level that a human ear can safely tolerate without immediate harm. It is typically expressed in decibels (dB SPL) and is crucial for assessing potential hearing damage and ensuring compliance with safety regulations
3. **dB** - In sound engineering, decibels (dB) are a unit of measurement used to quantify the intensity or power level of sound. They express the ratio of two values on a logarithmic scale, making them particularly useful for comparing sound levels across a wide range, from the faintest whisper to the loudest noise.
4. HAVE ALSO ADDED THE OVERALL SOUND LEVELS HALL NOT EXCEED A 30 MINUTE Leq OF 55 dB(A).

a. **Definition of overall sound level** is -Overall sound level represents the combined acoustic energy from multiple sources, measured in decibels (dB), and is calculated using logarithmic addition rather than simple arithmetic.

b. **30 minute Leq** is - Equivalent Continuous Sound Level
The 30-minute Leq (Equivalent Continuous Sound Level) is defined as the sound level that has the same total sound energy as the fluctuating noise over a 30-minute period. It is a measure of sound energy that averages the sound pressure levels over time, providing a single value that represents the overall noise exposure. Leq is commonly used in noise measurements to assess the impact of noise on health and welfare, and it is often expressed in decibels (dB)

c. **dB(A)** - In sound engineering, dB(A) refers to the A-weighted decibel scale, which is used to measure sound levels that correspond to how the human ear perceives sound. This scale is adjusted to give more weight to higher frequencies, which are more noticeable to the human ear, while reducing the weight of lower frequencies.
    a. dB(A) is commonly used in noise assessments to evaluate average daily noise exposure, often referred to as the "85 dB(A)" limit for noise exposure.
    b. The "A" in dB(A) indicates that the measurement is weighted to reflect human auditory perception, making it more accurate for assessing loudness and annoyance.
    c. The dB(A) scale is particularly useful in environments where the human ear is more sensitive to certain frequencies, such as speech and high-pitched sounds.

5. **dB (C)** - In sound engineering, dB(C) refers to a sound pressure level measurement that is more linear over several octaves, making it suitable for subjective measurements at very high sound pressure levels. Unlike dB(A), which emphasizes frequencies around 2–5 kHz and de-emphasizes very low and very high frequencies, dB(C) gives equal weight to all frequencies, making it ideal for measuring peak or high-level noise, such as in concert venues or high-level machinery.
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