

Acoustical Treatment for Excessive Reverberation

Most recreational spaces such as gymnasiums, swimming pools, cafeteriums, and other multi-purpose areas are usually rectangular, with ceiling heights over 18'. Part of reverberation problems with this type of area is a high volume to square foot ratio. From experience with many projects over a period of time here - are some "rules" to keep in mind when considering treatment.

1. Best results are usually achieved by using an equal amount of material on the ceiling such as baffles, clouds, or ceiling direct mount, and on the wall with Wall Panels.
2. Install the acoustical material as close to the sound source as possible.
3. With regard to rule #2, it is strongly suggested that wall panels be installed at least 10' off the floor from the bottom of the panel.
4. When walls adjoin each other hold back the acoustical treatment 18" from each intersection and from intersection of walls with ceiling (deck).
5. If space or budgets prevents full treatment, place acoustical materials on two adjacent walls.
6. Encapsulated materials do not support mold or mildew and don't trap moisture. CMA will provide installation recommendations.
7. Use absorption at 500hz as the value for calculation of sabins present or for proposed treatment.
8. Ceiling baffles have maximum efficiency spaced 6' to 8' OC in parallel rows with staggered spacing between rows.
9. Always consider the cost effectiveness of any proposed acoustical treatment by comparing the DOLLARS PER SABIN of absorption.
10. In unusual space configurations or with large areas to treat, always consider the employment of an Architectural Acoustical Consultant. They are professionals with the experience and understanding to solve major problems which might go far beyond reverberation time. In almost every case, their fees are well worth the costs.



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