RPG DIFFUSOR SYSTEMS, INC.

RPG encourages the use of Acoustic Consultants that can provide a full scope of services including Room Acoustics, Sound Isolation, Noise Control, A/V System Design & Specifications, etc. To find an Acoustic Consultant in your area or one that specializes in a particular type of project, contact the National Council of Acoustic Consultants (www.ncac.com).

CHORAL ROOM

Choral Room Example

- Suspended Pyramidal Diffusors
- Variable Absorption as Curtains on Upper Walls
- Fixed Diffusion & Variable Absorption on Lower Walls

The primary acoustic goal for a Choral Rehearsal Room is to provide an adequately reverberant room that blends and reinforces the choral music, but also permits critical listening and intelligible direction from the choral director. This goal can be achieved by providing diffusion over and in front of the choir and diffusion/reflection on the side walls flanking the choral risers and behind the choir.

Ceiling

The ceiling should be approximately 30% diffusive, 30% absorptive and 40% reflective. Diffusion should be accomplished with RPG ***Omniffusors***. Absorption should be accomplished with standard ACT having a noise reduction coefficient of NRC-0.65 or higher. Reflection should be achieved with a double layer GWB soffit around the perimeter of the room. The soffit should be between 14' and 16' above the finish floor and the central ceiling of RPG Omniffusors and ACT should be between 16' and 18' above finish floor.

The Omniffusors should be grouped together in modules 3 units wide by 3 units long (6'x 6') with Omniffusor modules spaced apart by 2' wide bands of ACT tiles (both directions) for implementation of air diffusers, lights, etc.

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Upper Walls Approximately 50% of the upper side and rear walls (above 12'-0") should be treated with RPG ***BAD Panels***. Use 2" thick RPG BAD Panels if the walls are gypsum board. Use 4" thick panels if the walls are concrete. The rest of the upper side and rear walls can be painted, split-face block. The upper portion of the front wall (facing the choir) should be sound diffusive and angled down out of vertical so that it is perpendicular to the center of the choral risers. This wall surface should be treated with RPG ***FlutterFree*** planking.

Lower Walls The lower portions of the side and rear walls (below 12'-0") should be primarily diffusive (75% of lower wall area). The most economical option is RPG ***DiffusorBlox*** (nonslotted, painted). The remaining wall area should preferably be split-face block, but standard, painted CMU or painted GWB is minimally acceptable.

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