

## CONSTRUCTION CRITERIA FOR SUCCESSFUL MUSIC PRACTICE & PERFORMANCE

### INSTRUMENTAL REHEARSEL

Total room volume  $\geq$  450 Cubic Feet per musician

$\geq$  20' high ceiling

$\geq$  25 square feet total floor area per musician

$<$  1.0 seconds reverberation\*

Tonally neutral across frequencies\* (neither "boomy" nor "harsh" sounding)

No flutter echo (caused by parallel room surfaces)

No Carpet

NC 25 \*and insulated form adjacent rooms

### CHORAL REHEARSAL

Total room volume  $\geq$  300 Cubic feet per singer

$\geq$ 15' high ceiling

$\geq$ 15 square feet total floor area per vocalist

$\cong$  0.9 - 1.3 seconds reverberation\*

Tonally balanced\*, (neither harsh nor boomy) with slight rise below 250 Hz permitted

No flutter echo (caused by parallel room surfaces)

No Carpet

NC 25 \* and insulated from adjacent rooms

### AUDITORIUM PERFORMANCE

House cubic volume  $>$  200 cubic feet per audience seat

$\leq$  90' form stage to furthest seat in house

$\geq$  20 square feet total stage area per musician (10 per vocalist)

Reverberation 1.3 to 1.9 seconds (dependent upon house size)\*

Tonally balanced\*, (neirher harsh nor boomy) with slight rise below 250 Hz permitted

House Rear wall either highly diffusive or absorptive to prevent "slap back"

Carpeted aisles & padded cloth seats to minimize impact of audience variation upon reverberation

NC 20 \* and insulated from adjacent rooms

Portable performance "shell" OR no Proscenium

\* Achievement of these criteria generally require the services of an experienced acoustic consultant. These criteria cannot be achieved by guesswork or chance, and are pivotal to having state-of-the-art or poor facilities for music education and performance.