Date: June 16, 2021

University of South Carolina, Columbia, SC
Band Room
Wenger Drawing #21P16713

ROOM VOLUME:
"Ideal" room volume for a vocal room allows for 350-500 cu ft per student. The room is "ideal" for up to 256 students. The room volume when the scheduled 96 students are rehearsing allows for 1,465 cu ft per student.

ROOM VOLUMES: 550-700 CU.FT. PER INSTRUMENTALIST
350-500 CU.FT. PER VOCALIST

THE CUBIC VOLUME OF THE ROOM; (length x width x height, divided by number of students)

A.) The room MUST be large enough to accommodate the sound energy of the largest group.
B.) If the cubic volume of the room is too low, the room WILL BE TOO LOUD.
C.) Some rooms are simply too small to accommodate the groups that play in them. In those cases, only partial improvements can be made until the rehearsal room is enlarged or moved to a larger space, or the ensemble is broken up into smaller groups.

VERIFY ROOM LAYOUT:
The customer should use the drawing to verify all views to ensure there are no obstructions on the walls or ceiling which will interfere with WENGER panels. There is a "GRAPHICS SCALE" listed within the drawing area to help show the actual scale of the drawing.

ROOMS WITH SUSPENDED CEILINGS (excluding CHOIR rooms):

A.) BUDGET quotes: Ceiling requires 1" glass fiber panels (with an NRC value of 0.95). "Budgetary quote" & "panel analysis" based on suspended ceiling with 1 " glass fiber panels. Any other panel needs to be changed out, by others.
B.) When DRAWINGS are supplied: See "note #1" on drawing.

REVERBERATION TIME AND NOISE REDUCTION ESTIMATES

Date: 10-Jun-21 Room Type: Marching Band

Proj: UNIVERSITY OF SOUTH CAROLINA
Adrs: COLUMBIA, SC
Room: MARCHING BAND

		Octave Frequencies Hz 125	Hz 250	Hz 500	Hz 1000	Hz 2000	Hz 4000
Total Absorption Sabines	Empty	6956	7712	5785	7689	8961	8185
	Untreated & Occupied	7052	8164	6467	8284	9480	8761
	Treated & Occupied	8817	10730	9425	11264	12354	11689
Reverberation Time in seconds (RT60) (Sabine)	Empty	0.99	0.89	1.19	0.90	0.77	0.84
	Treated vs Untreated	0.98	0.84	1.07	0.83	0.73	0.79
	Sound Reduc After Treatment	0.78	0.64	0.73	0.61	0.56	0.59
Reverberation Time in seconds (RT60) (Fitzroy)	Untreated & Occupied	1.40	2.06	2.21	1.98	1.67	1.85
	Treated & Occupied	0.81	0.67	0.74	0.63	0.58	0.62
Noise Reduction in db (Sabine)	Empty vs Untreated & Occpd	0.06	0.25	0.48	0.32	0.24	0.30
	Untrtd&Occ vs Treated&Occ	0.97	1.19	1.64	1.33	1.15	1.25
	Empty vs Treated&Occpd	1.03	1.43	2.12	1.66	1.39	1.55
Noise Reduction in db (Fitzroy)	Untrtd&Occ vs Treated&C	2.38	4.87	**4.75**	4.98	4.55	4.77

Sound Reduction (Fitzroy)

10-Jun-21

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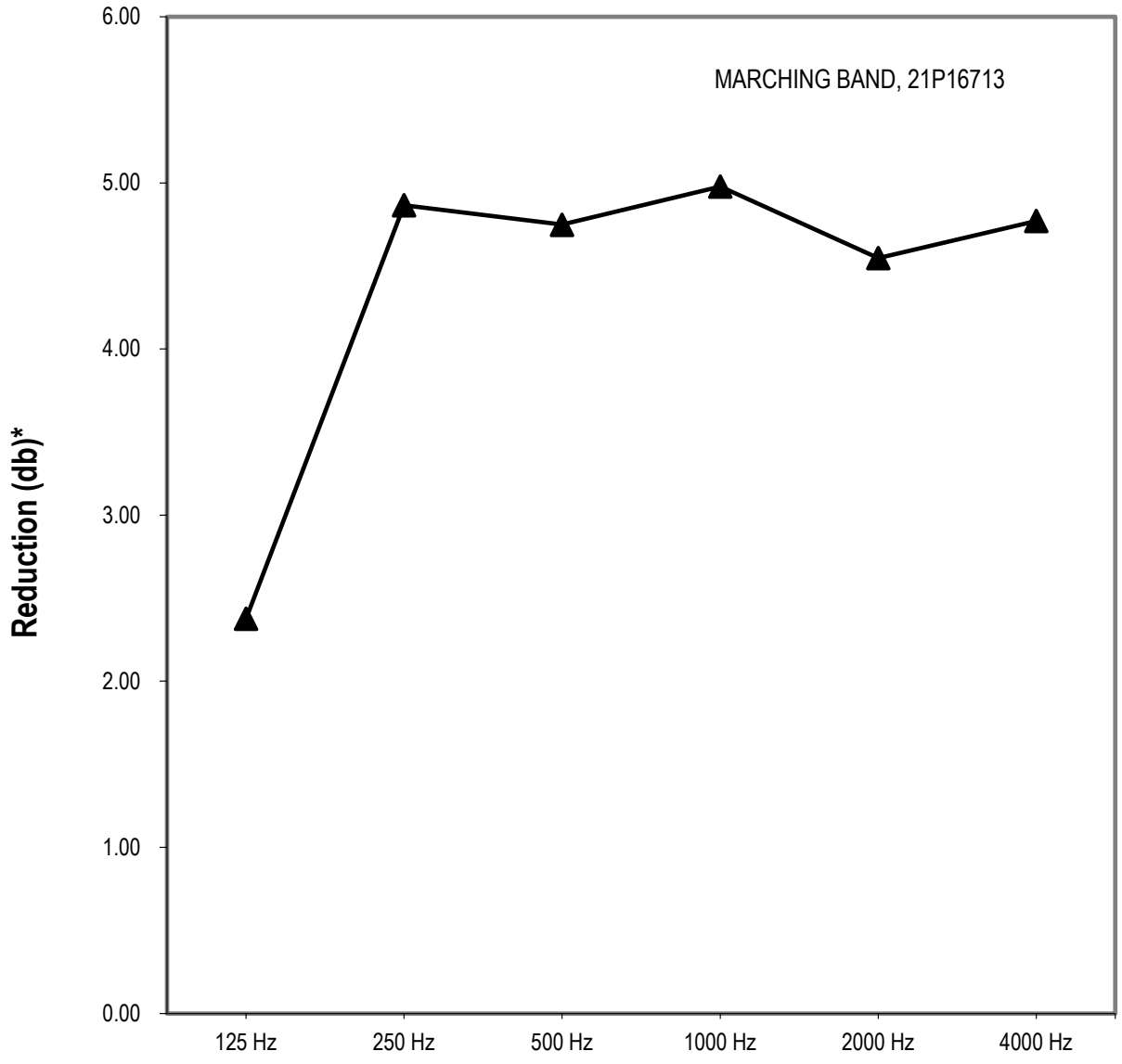

* 1-2 db - not noticable
3 db - slightly notciable
4-6 db - very noticable

Sound Reduction

Reverberation Time (Fitzroy)

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