

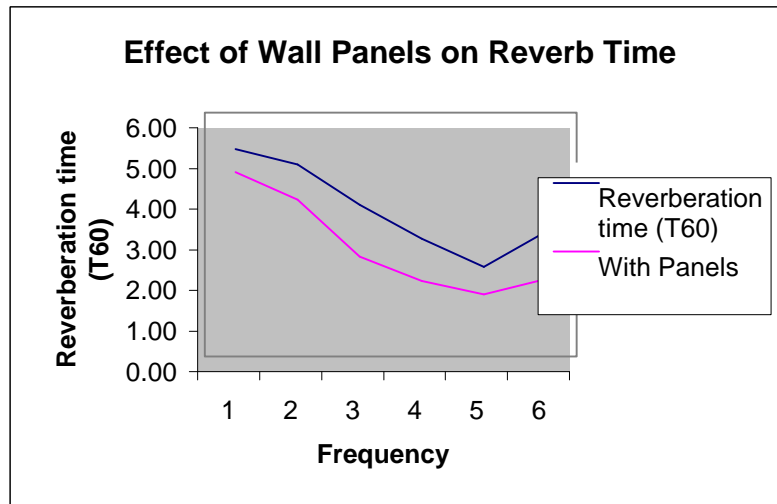
**First UMC - Brevard, NC**  
Sabine Reverberation Formula

constant (Eng units) 0.049

Surface	Area	Material	----- Absorption coefficients -----					
			125	250	500	1000	2000	4000
Floor	3852	Tile	0.01	0.01	0.01	0.02	0.02	0.02
Floor	850	Carpet	0.05	0.05	0.10	0.20	0.30	0.40
Ceiling	4198	Plaster	0.02	0.02	0.03	0.04	0.04	0.03
Walls	5883	Plaster	0.02	0.02	0.03	0.04	0.04	0.03
Windows	478	Glass	0.18	0.06	0.04	0.03	0.02	0.02
	0		0.00	0.00	0.00	0.00	0.00	0.00
Air	84		0.00	0.00	0.90	2.30	7.20	0.00
Occupants	75	Human	2.50	3.50	4.20	4.60	5.00	5.00
Total	15420							
Height	21							
		Average absorption coefficient	0.06	0.07	0.08	0.11	0.14	0.10
		Reverberation time (T60)	5.10	4.73	3.74	2.90	2.21	3.08 seconds

Adding acoustic treatments:

Sq. Feet	Panel type	125	250	500	1000	2000	4000
848	1" Alphasorb Wall Panel	0.14	0.27	0.80	1.11	1.14	1.14
	Average absorption coefficient	0.07	0.08	0.13	0.17	0.20	0.16
	Reverberation time (T60)	4.53	3.86	2.45	1.86	1.53	1.91 seconds



20 30"W X 8' Radiused Panels	528
10 4' X 4' Panels	320
Total	848