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# SPACE AIR-EXCHANGE PER HOUR CALCULATOR

GRAHAM & PARKS SCHOOL, 44 LINNAEAN ST., CAMBRIDGE, MA

7/2/2021

ROOM NAME/#	SERVED BY	CEILING HEIGHT (FT)	FLOOR AREA (FT <sup>2</sup> )	VOLUME (FT <sup>3</sup> )	TOTAL SUPPLY AIR (FT <sup>3</sup> /MIN)	VENTILATION AIRFLOW IN (FT <sup>3</sup> /MIN)	EXHAUST/ RETURN AIRFLOW OUT (FT <sup>3</sup> /MIN)	TOTAL AIR CHANGES PER HOUR (O.A. PLUS RECIRC. AIR)	AIR EXCHANGES PER HOUR (O.A. ONLY)	FLUSHOUT TIME REQUIRED @ Air Changes/Hr OA (HRS)
007 Main lobby		10.0	1458	14580.0		NO TAB DATA		0.0	0.0	∞
005 Main office		7.4	292.4	2163.8		NO TAB DATA		0.0	0.0	∞
Asst principal		1.0	148.5	148.5		NO TAB DATA		0.0	0.0	∞
Principal		10.0	223.5	2235.0		NO TAB DATA		0.0	0.0	∞
Principal toilet	RF-5	7.8	34	265.2			109	0.0	24.7	∞
001 Conference	RF-14	8.3	526.8	4372.4			50	0.0	0.7	∞
Nurse		7.5	236.4	1773.0		NO TAB DATA		0.0	0.0	∞
Office in nurse		1.0	109.4	109.4		NO TAB DATA		0.0	0.0	∞
Exam room		1.0	125.75	125.8		NO TAB DATA		0.0	0.0	∞
Nurses' Toilet	RF-6	7.5	32.2	241.5			33	0.0	8.2	∞
Staff Toilet	RF-6	7.5	32.2	241.5			16	0.0	4.0	∞
Teacher lounge		1.0	588.4	588.4		NO TAB DATA		0.0	0.0	∞
Rm 142A		1.0	131.1	131.1		NO TAB DATA		0.0	0.0	∞
St in teachers lounge		1.0	23.7	23.7		NO TAB DATA		0.0	0.0	∞
Office next to Main office		1.0	135	135.0		NO TAB DATA		0.0	0.0	∞
copier rm in main office	RF-5	7.4	136.8	1012.3			205	0.0	12.2	∞
Small room near 101 / 101A		1.0	67.8	67.8		NO TAB DATA		0.0	0.0	∞
Rm 101A		1.0	194.25	194.3		NO TAB DATA		0.0	0.0	∞
Rm 101	UV-B	1.0	1092.8	1092.8		NO TAB DATA		0.0	0.0	∞
Rm 102	UV-B	1.0	910.3	910.3		NO TAB DATA		0.0	0.0	∞
Hallway near 101 / 102		1.0	50.9	50.9		NO TAB DATA		0.0	0.0	∞

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102A Office		1.0	213.25	213.3	NO TAB DATA			0.0	0.0	∞
Hallway near 102 / 102A		1.0	75	75.0	NO TAB DATA			0.0	0.0	∞
Rm 103	UV	10.0	945	9450.0	612	612		3.9	3.9	360
Rm 104	UV	10.0	962.7	9627.0	0	0		0.0	0.0	∞
Rm 105	UV	10.0	913.6	9136.0	602	602		4.0	4.0	354
Rm 106	UV	10.0	1034.3	10343.0	634	634		3.7	3.7	381
Rm 107	UV	10.0	981.6	9816.0	284	284		1.7	1.7	806
Toilet Rm 103	RF-3	7.5	24	180.0			0 FNE	0.0	0.0	∞
Toilet Rm 104	RF-3	7.5	33	247.5			0 FNE	0.0	0.0	∞
Toilet Rm 105	RF-3	7.5	24	180.0			0 FNE	0.0	0.0	∞
Toilet Rm 106	RF-3	7.5	33	247.5			0 FNE	0.0	0.0	∞
Toilet Rm 112	RF-4	7.5	33	247.5			31	0.0	7.5	∞
Toilet Rm 113	RF-4	7.5	24	180.0			16	0.0	5.3	∞
Toilet Rm 114	RF-4	7.5	33	247.5			25	0.0	6.1	∞
Toilet Rm 115	RF-4	7.5	24	180.0			18	0.0	6.0	∞
Hallway near 106 / 107		10.0	48.75	487.5	NO TAB DATA			0.0	0.0	∞
Rm 108	UV-A	10.0	945	9450.0	NO TAB DATA			0.0	0.0	∞
Rm 109		10.0	225	2250.0	NO TAB DATA			0.0	0.0	∞
Rm 110	UV-B	10.0	1088.4	10884.0	NO TAB DATA			0.0	0.0	∞
RM 111	UV-B	10.0	1086	10860.0	291	291		1.6	1.6	871
Rm 111A		10.0	194.75	1947.5	NO TAB DATA			0.0	0.0	∞
Hallway near 111 / 111A		10.5	73.8	774.9	NO TAB DATA			0.0	0.0	∞
Rm 112		10.0	1092.8	10928.0	1260	1260		6.9	6.9	202
Rm 113		10.0	968	9680.0	619	619		3.8	3.8	365
Rm 114		10.0	1088.4	10884.0	1099	1099		6.1	6.1	231
Rm 115		10.0	968	9680.0	653	653		4.0	4.0	346
Rm 116		10.0	109.4	1094.0	NO TAB DATA			0.0	0.0	∞
Boys Bathroom 1	RF-4	8.4	203.6	1713.6			134	0.0	4.7	∞
Girls Bathroom 1	RF-4	8.4	206.3	1736.4			190	0.0	6.6	∞
Janitors Closet 1	RF-4	8.4	46.875	394.5			127	0.0	19.3	∞

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Boys Bathroom 2	RF-3	8.4	203.6	1713.6			0 FNE	0.0	0.0	∞
Girls Bathroom 2	RF-3	8.4	206.3	1736.4			0 FNE	0.0	0.0	∞
Janitors Closet 2	RF-3	8.4	46.875	394.5			0 FNE	0.0	0.0	∞
Lobbies next to cafe		1.0	1134.5	1134.5	NO TAB DATA			0.0	0.0	∞
Cafeteria	HV-7	9.9	2480	24593.3	2115	775	0 FNE	5.2	1.9	747
Auditorium	HV-3	21.0	2600	54600.0	2140	0	0 FNE	2.4	0.0	∞
Stage	HV-5	23.5	1516.9	35647.2	1110	208	183	1.9	0.3	1705
Stage Storage 1	HV-5	10.0	200	2000.0	125	23	16	3.8	0.5	1996
Stage Storage 2	HV-5	10.0	200	2000.0	130	24	34	3.9	0.7	1919
Stage Storage 3	HV-5	10.0	200	2000.0	159	30	33	4.8	0.9	1569
Stage Corridor	HV-5	10.0	500	5000.0	128	24	43	1.5	0.3	4873
Kitchen	HV-4	8.8	911.55	8052.0	5802	1890	1890	43.2	14.1	113
Scullery		1.0	160.22	160.2	NO TAB DATA			0.0	0.0	∞
Kitchen office		1.0	56	56.0			0 FNE	0.0	0.0	∞
Food st in kitchen		1.0	91	91.0	NO TAB DATA			0.0	0.0	∞
Cust Stor near Kitchen		1.0	30	30.0	NO TAB DATA			0.0	0.0	∞
Bath/Shower by Kitchen		7.5	56	420.0			0 FNE	0.0	0.0	∞
Bath/Office by Kitchen		7.5	86	645.0			0 FNE	0.0	0.0	∞
Gym w/ storage	HV-2	25.0	6548.75	163718.8	2797	569	0 FNE	1.0	0.2	2685
Hallway outside kitchen		1.0	144	144.0	NO TAB DATA			0.0	0.0	∞
128 Art	HV-1	8.8	1218.6	10662.8	1771	991	0 FNE	10.0	5.6	287
Rm 128 storage		1.0	143.6	143.6	NO TAB DATA			0.0	0.0	∞
Rm 128 office		1.0	91.4	91.4	NO TAB DATA			0.0	0.0	∞
Custodian office		1.0	125.33	125.3	NO TAB DATA			0.0	0.0	∞
Storage large next to cust office		1.0	125.33	125.3	NO TAB DATA			0.0	0.0	∞
Storage small next to cust office		1.0	71.25	71.3	NO TAB DATA			0.0	0.0	∞
Hallway (all 1st floor)		1.0	4159.2	4159.2	NO TAB DATA			0.0	0.0	∞
Rm 203		10.0	999	9990.0	435	435		2.6	2.6	536

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Rm 204		10.0	999	9990.0	435	435		2.6	2.6	536
Rm 205		10.0	999	9990.0	608	608		3.7	3.7	383
Rm 206		10.0	939	9390.0	608	608		3.9	3.9	360
Rm 207		10.0	999	9990.0	608	608		3.7	3.7	383
Rm 208		10.0	939	9390.0	608	608		3.9	3.9	360
Rm 211		10.0	999	9990.0	608	608		3.7	3.7	383
Rm 212		10.0	1132	11320.0	608	608	491	3.2	2.6	434
Rm 213		10.0	999	9990.0	608	608		3.7	3.7	383
Work rm off of 214	RF-18	1.0	220.9	220.9			0 FNE	0.0	0.0	∞
Rm 214		10.0	939	9390.0	608	608		3.9	3.9	360
2nd Floor Staff Toilet	RF-3	7.4	38.5	285.5			0 FNE	0.0	0.0	∞
2nd Floor Janitor's Closet	RF-3	8.4	126.5	1064.7			0 FNE	0.0	0.0	∞
2nd Floor Janitor's Closet	RF-4	8.4	126.5	1064.7			138	0.0	7.8	∞
Rm 215 st		1.0	141.4	141.4	NO TAB DATA			0.0	0.0	∞
Rm 215		10.0	999	9990.0	608	608		3.7	3.7	383
Rm 218		10.0	419.1	4191.0	538	225	0 FNE	7.7	3.2	435
219 Library	RF-26	10.0	1840	18400.0	580	580	0 FNE	1.9	1.9	740
Project rm off of 219	RF-7	10.0	370	3700.0			0 FNE	0.0	0.0	∞
218 office/A		1.0	138.1	138.1	NO TAB DATA			0.0	0.0	∞
218B		1.0	179.4	179.4	NO TAB DATA			0.0	0.0	∞
218C		1.0	159.375	159.4	NO TAB DATA			0.0	0.0	∞
Girls bathroom (2nd floor)	RF-22	8.4	197	1654.8			0 FNE	0.0	0.0	∞
Boys bathroom (2nd floor)	RF-23	8.4	269.6	2264.6			0 FNE	0.0	0.0	∞
Computer Lab		1.0	775.6	775.6	NO TAB DATA			0.0	0.0	∞
Rm 230		1.0	110.8	110.8	NO TAB DATA			0.0	0.0	∞
Rm 231		1.0	53.77	53.8	NO TAB DATA			0.0	0.0	∞
Rm 232		1.0	162.75	162.8	NO TAB DATA			0.0	0.0	∞
Rm 217		1.0	1002.5	1002.5	NO TAB DATA			0.0	0.0	∞
Rm 216		10.0	945	9450.0	608	608		3.9	3.9	363
Rm 235		1.0	80.67	80.7	NO TAB DATA			0.0	0.0	∞

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Rm 220		10.0	991.4	9914.0	290	290		1.8	1.8	798
Rm 221		1.0	937.125	937.1	NO TAB DATA			0.0	0.0	∞
Rm 222		1.0	937.125	937.1	NO TAB DATA			0.0	0.0	∞
Book rm		1.0	220.6	220.6	NO TAB DATA			0.0	0.0	∞
Rm 226 OT/PT		1.0	414.1	414.1	NO TAB DATA			0.0	0.0	∞
OT/PT small		1.0	193.3	193.3	NO TAB DATA			0.0	0.0	∞
Bathroom in rm 226		1.0	38	38.0	NO TAB DATA			0.0	0.0	∞
Rm 223		1.0	745.1	745.1	NO TAB DATA			0.0	0.0	∞
Rm 224		1.0	945	945.0	NO TAB DATA			0.0	0.0	∞
Rm 225		1.0	1002.5	1002.5	NO TAB DATA			0.0	0.0	∞
Boys Locker Room	HV-6	9.0	1027	9243.0	723	0	0 FNE	4.7	0.0	∞
Boys Gym Office	HV-6	7.5	106.55	799.1	45	0		3.4	0.0	∞
Boys Office Bathroom		7.5	36.5	273.8			0 FNE	0.0	0.0	∞
Girls Gym Office	HV-6	7.5	106.55	799.1	36	0		2.7	0.0	∞
Girls Office Bathroom		7.5	36.5	273.8			0 FNE	0.0	0.0	∞
Gym office storage (both)		1.0	4.3	4.3	NO TAB DATA			0.0	0.0	∞
Locker room storage (both)		1.0	10	10.0	NO TAB DATA			0.0	0.0	∞
Girls Locker Room	HV-6	9.0	1369	12321.0	552	0	0 FNE	2.7	0.0	∞
Cust Stor near Boys Locker		1.0	35	35.0	NO TAB DATA			0.0	0.0	∞
Storage outside boys locker rm		1.0	70	70.0	NO TAB DATA			0.0	0.0	∞
Hallway (all 2nd floor)		1.0	4176.6	4176.6	NO TAB DATA			0.0	0.0	∞
Stairwell near kitchen		1.0	116.9	116.9	NO TAB DATA			0.0	0.0	∞

FNE = "Fan not energized" per Final TAB Report

Avg	1.4	1.7	807.6
	OR	33.6	DAYS