



GARCIA, GALUSKA & DeSOUSA
Consulting Engineers Inc.

375 Faunce Corner Road, Suite D
Dartmouth, Massachusetts 02747-1258

T: 508-998-5700 • F: 508-998-0883 • E: info@g-g-d.com

SPACE AIR-EXCHANGE PER HOUR CALCULATOR

PEABODY SCHOOL, 70 RINDGE AVE, CAMBRIDGE, MA							9/27/2021			
ROOM NAME/#	SERVED BY	CEILING HEIGHT (FT)	FLOOR AREA (FT ²)	VOLUME (FT ³)	TOTAL SUPPLY AIR (FT ³ /MIN)	VENTILATION AIRFLOW IN (FT ³ /MIN)	EXHAUST/ RETURN AIRFLOW OUT (FT ³ /MIN)	TOTAL AIR CHANGES PER HOUR (O.A. PLUS RECIRC. AIR)	AIR EXCHANGES PER HOUR (MUST BE ≥ 2.0)	FILTER MERV RATING
A107		8.7	136.5	1183.0	393	199	199	19.9	10.1	#N/A
A109		9.3	197.4	1842.4	228	0		7.4	0.0	#N/A
A14		12.0	43.6	523.2		NO TAB DATA		0.0	0.0	#N/A
Transformer		12.0	29.8	357.6		NO TAB DATA		0.0	0.0	#N/A
B154	UV-1	9.7	801.0	7743.0	549	0	0 FNE	4.3	0.0	5
B151	UV-1	10.5	250.0	2625.0	471	0	0 FNE	10.8	0.0	5
B159	UV-4	10.4	1096.4	11420.8	956	39	0 FNE	5.0	0.2	5
B159 T		8.5	60.3	512.6			39	0.0	4.6	#N/A
B159 ST		8.5	43.7	371.5			0 FNE	0.0	0.0	#N/A
B161	UV-NS	13.7	469.2	6412.4	381	44	337	3.6	0.4	5
B160	UV-4	10.4	1098.5	11442.7	1183	86	0 FNE	6.2	0.5	5
B160 T		8.5	60.3	512.6			86	0.0	10.1	#N/A
B160 ST		8.5	43.8	372.3			0 FNE	0.0	0.0	#N/A
B158	UV-4	10.3	1132.6	11703.5	978	37	0 FNE	5.0	0.2	5
B158 T		8.5	61.8	525.3			37	0.0	4.2	#N/A
B158 ST		12.0	34.0	408.0		NO TAB DATA		0.0	0.0	#N/A
B157	UV-4	10.0	1137.3	11373.0	885	105	0 FNE	4.7	0.6	5
B157 T		8.5	61.9	526.2			47	0.0	5.4	#N/A
B157 JAN		10.0	34.0	340.0			58	0.0	10.2	#N/A
B162	UV-NS	13.7	364.5	4981.5	554	173	381	6.7	2.1	5
B162 TOILET		8.0	50.0	400.0			97	0.0	14.6	#N/A
B150	UV-1	8.0	369.3	2954.4	505	197	308	10.3	4.0	5
B150 T		12.0	61.1	733.2			79	0.0	6.5	#N/A

ROOM NAME/#	SERVED BY	CEILING HEIGHT (FT)	FLOOR AREA (FT ²)	VOLUME (FT ³)	TOTAL SUPPLY AIR (FT ³ /MIN)	VENTILATION AIRFLOW IN (FT ³ /MIN)	EXHAUST/ RETURN AIRFLOW OUT (FT ³ /MIN)	TOTAL AIR CHANGES PER HOUR (O.A. PLUS RECIRC. AIR)	AIR EXCHANGES PER HOUR (MUST BE ≥ 2.0)	FILTER MERV RATING
B150 T		12.0	61.6	739.2		NO TAB DATA		0.0	0.0	#N/A
B150 ST		12.0	13.1	157.2		NO TAB DATA		0.0	0.0	#N/A
B149	UV-1	10.2	263.0	2673.8	493	0	0 FNE	11.1	0.0	5
C139		9.0	378.5	3406.5	605	33	572	10.7	0.6	#N/A
C142		9.0	252.6	2273.4	581	198	204	15.3	5.2	#N/A
C142A		9.0	129.0	1161.0	328	111	396	17.0	5.8	#N/A
C141		9.0	401.6	3614.4	724	566	158	12.0	2.6	#N/A
CORR/STOR/TRASH		9.0	300.0	2700.0	281			6.2	0.0	#N/A
Men's Room		9.0	60.0	540.0			0 FNE	0.0	0.0	#N/A
Women's Room		9.0	60.0	540.0			0 FNE	0.0	0.0	#N/A
C132 Peabody Afterschool	UV-NS	9.0	975.6	8780.4	1028	335	874	7.0	2.3	5
C132 Kitchen		9.0	84.0	756.0			109	0.0	8.7	#N/A
C132 Storage	UV-NS	9.0	133.4	1200.6			0 FNE	0.0	0.0	5
A101 Main Office	ADMIN	9.0	464.8	4182.8	735	21		10.5	0.3	13
A101C Corridor	ADMIN	9.0	464.8	4182.8	95	3		1.4	0.0	13
A102	ADMIN	9.0	170.0	1530.0	578	17		22.7	0.7	13
A103	ADMIN	9.2	90.3	827.8	308	9		22.3	0.6	13
A106	ADMIN	9.3	222.0	2053.5	1034	30	48	30.2	0.9	13
A104	ADMIN	9.0	72.2	649.8	156	4		14.4	0.4	13
A108 Nurse	ADMIN	9.0	314.4	2829.6	729	21		15.5	0.4	13
A108 Nurse Toilet		12.0	47.5	570.0			74	0.0	7.8	#N/A
A101 Toilet		8.0	50.0	400.0			51	0.0	7.7	#N/A
A101S MAIN OFFICE STOR		12.0	10.6	127.2		NO TAB DATA		0.0	0.0	#N/A
A112	ADMIN	9.7	184.2	1780.6	165	5		5.6	0.2	13
A110	ADMIN	9.3	148.3	1371.8	397	11		17.4	0.5	13
A111		12.0	101.4	1216.8	NO ACCESS DOOR WAS LOCKED			0.0	0.0	#N/A
A127		8.8	2100.5	18379.4	3204		1670	10.5	5.5	#N/A
A127A		9.3	188.6	1760.3	187			6.4	0.0	#N/A
A127B		9.2	101.6	931.3	109			7.0	0.0	#N/A
A127C MDF		12.0	119.5	1434.0		NO TAB DATA		0.0	0.0	#N/A
A127D Reading Recovery		9.0	411.4	3702.6	825			13.4	0.0	#N/A
A126A Tutoring Room		9.8	179.1	1746.2	0 FNE		0 FNE	0.0	0.0	#N/A

ROOM NAME/#	SERVED BY	CEILING HEIGHT (FT)	FLOOR AREA (FT ²)	VOLUME (FT ³)	TOTAL SUPPLY AIR (FT ³ /MIN)	VENTILATION AIRFLOW IN (FT ³ /MIN)	EXHAUST/ RETURN AIRFLOW OUT (FT ³ /MIN)	TOTAL AIR CHANGES PER HOUR (O.A. PLUS RECIRC. AIR)	AIR EXCHANGES PER HOUR (MUST BE ≥ 2.0)	FILTER MERV RATING
A113 Electric		10.0	33.5	335.0		NO TAB DATA		0.0	0.0	#N/A
A124	UV-3	10.0	962.8	9628.0	739	0	471	4.6	2.9	5
A118		12.0	25.9	310.5		NO TAB DATA		0.0	0.0	#N/A
A120	UV-3	10.0	926.7	9267.0	652	0	413	4.2	2.7	5
ST LONG		12.0	19.0	228.0		NO TAB DATA		0.0	0.0	#N/A
ST SMALL		12.0	5.0	60.0		NO TAB DATA		0.0	0.0	#N/A
A123		12.0	17.8	213.6		NO TAB DATA		0.0	0.0	#N/A
A116	UV-3	10.0	939.1	9391.0	757	0	453	4.8	2.9	5
A115	UV-3	9.8	928.1	9126.3	557	0	0 FNE	3.7	0.0	5
A126	UV-3	10.0	770.9	7709.0	902	0	0 FNE	7.0	0.0	5
A125	UV-3	10.0	941.7	9417.0	729	0	0 FNE	4.6	0.0	5
A125 ST		12.0	10.0	120.0		NO TAB DATA		0.0	0.0	#N/A
Boys Bathroom		9.0	228.8	2058.8			0 FNE	0.0	0.0	#N/A
Girls Bathroom		9.0	274.6	2471.4			0 FNE	0.0	0.0	#N/A
A122	UV-3	10.0	947.7	9477.0	671	0	296	4.2	1.9	5
A121	UV-3	10.0	933.5	9335.0	760	0	416	4.9	2.7	5
B153 OT/PT OFFICE	UV-1	10.5	291.0	3055.5	613	0	0 FNE	12.0	0.0	5
B152	UV-1	10.0	265.4	2654.0	511	0	0 FNE	11.6	0.0	5
B156 SPECIAL START	UV-4	10.0	1050.8	10507.7	989	0	0 FNE	5.6	0.0	5
B156 KITCHEN		8.5	148.7	1264.0			0 FNE	0.0	0.0	#N/A
B156 T		8.5	70.0	595.0			13 FNE	0.0	0.0	#N/A
B156 ST		8.5	71.1	604.4			37	0.0	3.7	#N/A
B155	UV-4	10.4	1049.0	10927.1	958	0	0 FNE	5.3	0.0	5
B155 T		8.5	70.0	595.0			72	0.0	7.3	#N/A
B155 ST		8.5	71.0	603.5			63	0.0	6.3	#N/A
B148		12.0	67.6	811.2		NO TAB DATA		0.0	0.0	#N/A
B146	UV-1	10.3	279.1	2884.0	522	0	0 FNE	10.9	0.0	5
B145	UV-NS	10.3	278.2	2874.7	542	208	334	11.3	4.3	5
Boys Bathroom		9.0	247.2	2224.8			291	0.0	7.8	#N/A
Girls Bathroom		9.0	200.0	1800.0			252	0.0	8.4	#N/A
C133 Peabody Preschool	UV-NS	9.0	790.0	7110.0	911	543	566	7.7	4.6	5
C133 Office	UV-NS	9.0	159.4	1434.6			99	0.0	4.1	5

ROOM NAME/#	SERVED BY	CEILING HEIGHT (FT)	FLOOR AREA (FT ²)	VOLUME (FT ³)	TOTAL SUPPLY AIR (FT ³ /MIN)	VENTILATION AIRFLOW IN (FT ³ /MIN)	EXHAUST/ RETURN AIRFLOW OUT (FT ³ /MIN)	TOTAL AIR CHANGES PER HOUR (O.A. PLUS RECIRC. AIR)	AIR EXCHANGES PER HOUR (MUST BE ≥ 2.0)	FILTER MERV RATING
C133 Storage	UV-NS	12.0	114.0	1368.0			0 FNE	0.0	0.0	5
C133 Toilet	UV-NS	9.0	84.0	756.0			0 FNE	0.0	0.0	5
C134 Gymnasium	HV-3	23.5	6600.5	155111.8	7381	2595	10080	2.9	1.0	13
C134 Gymnasium	HV-4	12.0	n/a	n/a	0 FNE					13
C134 Gym Office	UV-NS	9.5	124.0	1178.0	0 FNE			0.0	0.0	5
C134 Gym Off Toilet		9.0	62.6	563.4			76	0.0	8.1	#N/A
Gym Mens Tlt/Locker		9.2	214.4	1965.3	0 FNE		674	0.0	20.6	#N/A
C136 Womens Tlt/Locker		9.4	205.5	1935.1	0 FNE		694	0.0	21.5	#N/A
C135 Music Storage Room		12.7	583.4	7389.7	0 FNE		0 FNE	0.0	0.0	#N/A
C135A Elec Closet		12.0	42.5	510.0		NO TAB DATA		0.0	0.0	#N/A
C135B Roof Access		12.0	32.4	388.8		NO TAB DATA		0.0	0.0	#N/A
Cafeteria		10.0	3866.4	38664.0	10670	7790	2880	16.6	4.5	#N/A
Cafeteria Cust Stor		9.2	84.7	776.4			0 FNE	0.0	0.0	#N/A
C131A		12.0	35.8	429.6		NO TAB DATA		0.0	0.0	#N/A
Kitchen		9.5	887.8	8433.6	0 FNE		0 FNE	0.0	0.0	#N/A
Kitchen Corridor		9.2	250.0	2291.7	0 FNE			0.0	0.0	#N/A
Kitchen Dry Storage		9.2	137.6	1261.3			0 FNE	0.0	0.0	#N/A
Kitchen Toilet		9.0	55.4	498.6			58	0.0	7.0	#N/A
Kitchen Janitor Sink		9.2	75.0	687.5			62	0.0	5.4	#N/A
Kitchen Freezer		12.0	114.6	1375.2		NO TAB DATA		0.0	0.0	#N/A
Kitchen Office		9.8	58.8	578.2		NO TAB DATA		0.0	0.0	#N/A
Cafeteria Stage		12.0	365.0	4380.0		NO TAB DATA		0.0	0.0	#N/A
Music Classroom	UV-4	7.8	658.0	5099.5	669	0	429	7.9	5.0	5
C106? Small Grp Instr		7.4	500.0	3708.3			224	0.0	3.6	#N/A
Basement Cust Office	UV-NS	12.0	150.0	1800.0	324	28	28	10.8	0.9	5
Main Lobby		9.2	500.0	4583.3	1008			13.2	0.0	#N/A
VPA SPACE		9.7	400.0	3866.7	226	96	130	3.5	1.5	#N/A
Auditorium Stage	ACU-2	12.0	792.2	9506.4		NO TAB DATA		0.0	0.0	13
Auditorium	ACU-2	16.5	2600.0	42900.0	7272	2305	4967	10.2	3.2	13
C140		9.0	190.3	1712.7	470	0	639	16.5	22.4	#N/A
C140 HALLWAY		9.0	350.0	3150.0	91	0		1.7	0.0	#N/A
SCHOOL STORE		12.0	53.1	637.2		NO TAB DATA		0.0	0.0	#N/A

ROOM NAME/#	SERVED BY	CEILING HEIGHT (FT)	FLOOR AREA (FT ²)	VOLUME (FT ³)	TOTAL SUPPLY AIR (FT ³ /MIN)	VENTILATION AIRFLOW IN (FT ³ /MIN)	EXHAUST/ RETURN AIRFLOW OUT (FT ³ /MIN)	TOTAL AIR CHANGES PER HOUR (O.A. PLUS RECIRC. AIR)	AIR EXCHANGES PER HOUR (MUST BE ≥ 2.0)	FILTER MERV RATING
CONTROL ROOM		12.0	104.0	1248.0		NO TAB DATA		0.0	0.0	#N/A
A207		12.0	6.0	72.0		NO TAB DATA		0.0	0.0	#N/A
A214	UV-4	10.0	930.7	9307.0	1186	0 FNE	0 FNE	7.6	0.0	5
A204	UV-4	12.0	150.0	1800.0		NO TAB DATA		0.0	0.0	5
A204A	UV-4	12.0	214.5	2574.0		NO TAB DATA		0.0	0.0	5
A204B	UV-4	10.0	208.2	2082.0	964	491		27.8	14.1	5
A204C	UV-4	10.0	327.5	3275.0			491	0.0	9.0	5
A215	UV-4	12.0	278.0	3336.0		NO TAB DATA		0.0	0.0	5
A215A	UV-4	12.0	158.4	1900.8		NO TAB DATA		0.0	0.0	5
A215B	UV-4	10.0	157.4	1574.0	355	0		13.5	0.0	5
A215C	UV-4	10.0	322.6	3226.0			0 FNE	0.0	0.0	5
A201A	UV-4	10.0	538.4	5384.0	395	0		4.4	0.0	5
A201B	UV-4	10.0	500.4	5004.0	438	0	0 FNE	5.3	0.0	5
A201		12.0	33.6	403.2		NO TAB DATA		0.0	0.0	#N/A
Girls Bathroom		9.4	260.5	2453.0			310	0.0	7.6	#N/A
A202	UV-4	10.0	942.4	9424.0	789	0 FNE	0 FNE	5.0	0.0	5
A202 ST		12.0	20.0	240.0		NO TAB DATA		0.0	0.0	#N/A
A216		10.0	924.3	9243.0	1250	0 FNE	0 FNE	8.1	0.0	#N/A
A203	UV-4	10.0	930.0	9300.0	934	0 FNE	0 FNE	6.0	0.0	5
A205	UV-4	10.0	938.0	9380.0	926	484	484	5.9	3.1	5
A213	UV-4	10.0	900.0	9000.0	761	365	365	5.1	2.4	5
Girls Bathroom		9.4	265.5	2500.1			356	0.0	8.5	#N/A
Boys Bathroom		9.4	242.0	2278.8			368	0.0	9.7	#N/A
G I Toilet		10.0	79.3	793.0			96	0.0	7.3	#N/A
A210	UV-4	10.0	922.2	9222.0	873	356	356	5.7	2.3	5
A212	UV-4	10.0	926.7	9267.0	795	420	420	5.1	2.7	5
A211	UV-4	10.0	926.9	9269.0	906	525	525	5.9	3.4	5
B226	UV-4	9.0	902.1	8118.9	898	0 FNE	0 FNE	6.6	0.0	5
226/227 WORK		8.8	86.5	756.9	0 FNE	0 FNE	0 FNE	0.0	0.0	#N/A
B227	UV-4	9.0	908.5	8176.5	879	0 FNE	0 FNE	6.5	0.0	5
B228	UV-4	9.0	890.8	8017.2	920	0 FNE	0 FNE	6.9	0.0	5
228/229 WORK		8.8	96.7	846.1	0 FNE	0 FNE	0 FNE	0.0	0.0	#N/A

ROOM NAME/#	SERVED BY	CEILING HEIGHT (FT)	FLOOR AREA (FT ²)	VOLUME (FT ³)	TOTAL SUPPLY AIR (FT ³ /MIN)	VENTILATION AIRFLOW IN (FT ³ /MIN)	EXHAUST/ RETURN AIRFLOW OUT (FT ³ /MIN)	TOTAL AIR CHANGES PER HOUR (O.A. PLUS RECIRC. AIR)	AIR EXCHANGES PER HOUR (MUST BE ≥ 2.0)	FILTER MERV RATING
B229	UV-4	9.0	894.0	8046.0	778	141	141	5.8	1.1	5
B230	UV-4	9.0	910.0	8190.0	891	170	170	6.5	1.2	5
230/231 WORK		8.8	87.7	767.4	0 FNE	0 FNE	0 FNE	0.0	0.0	#N/A
B231	UV-4	9.0	902.7	8124.3	464	154	154	3.4	1.1	5
B232	UV-3	9.0	1095.5	9859.5	2274	851	851	13.8	5.2	5
B232A		9.0	99.5	895.5			0 FNE	0.0	0.0	#N/A
Girls Bathroom		9.4	193.2	1819.3			294	0.0	9.7	#N/A
Boys Bathroom		9.4	170.5	1605.5			482	0.0	18.0	#N/A
Janitor St		10.0	17.0	170.0			109	0.0	38.5	#N/A
B222	UV	9.3	251.3	2345.5	487	0 FNE	0 FNE	12.5	0.0	#N/A
B222 Toilet		9.3	57.5	531.9			0 FNE	0.0	0.0	#N/A
B223		12.0	8.4	100.8		NO TAB DATA		0.0	0.0	#N/A
B222A Teacher Room	UV-1	9.3	147.0	1359.8	532	0 FNE	0 FNE	23.5	0.0	5
B221	UV	9.4	255.1	2402.2	509	0 FNE	0 FNE	12.7	0.0	#N/A
B220	UV-NS	8.6	368.7	3164.7	548	224	0 FNE	10.4	4.2	5
A219 ART		8.7	700.0	6066.7	0 FNE	0 FNE	0 FNE	0.0	0.0	#N/A
A219 KILN		12.0	80.0	960.0		NO TAB DATA		0.0	0.0	#N/A
A219 OFFICE		8.7	132.3	1146.6	0 FNE	0 FNE		0.0	0.0	#N/A
A219A OFFICE		8.7	122.5	1061.7	0 FNE	0 FNE		0.0	0.0	#N/A
A219B OFFICE		8.7	124.2	1076.4	0 FNE	0 FNE		0.0	0.0	#N/A
A219C OFFICE		8.7	130.0	1126.7	0 FNE	0 FNE		0.0	0.0	#N/A
Janitor St		12.6	16.6	208.9			86	0.0	24.7	#N/A
Boys Bathroom		9.4	244.0	2297.7			276	0.0	7.2	#N/A
Misc Room 1		12.0	56.1	673.2		NO TAB DATA		0.0	0.0	#N/A
Misc Room 2		12.0	55.6	667.2		NO TAB DATA		0.0	0.0	#N/A
Hallway 2F A wing		10.0	3224.8	32247.5	448	447	447	0.8	0.8	#N/A
Hallway 2F B wing		9.5	3224.8	30635.1	0 FNE	0 FNE	0 FNE	0.0	0.0	#N/A
1F Hallway near Gym/Caf		9.0	1678.9	15110.2	544	40	504	2.2	0.2	#N/A
Hallway 1F A wing East		10.0	1678.9	16789.1	495	180	315	1.8	0.6	#N/A
Hallway 1F A wing Center		9.0	1678.9	15110.2	0 FNE	0 FNE	0 FNE	0.0	0.0	#N/A
Hallway 1F A wing West		9.0	1678.9	15110.2	117	117		0.5	0.5	#N/A
Hallway 1F Caf/Media		21.0	1678.9	35257.2			1248	0.0	2.1	#N/A

ROOM NAME/#	SERVED BY	CEILING HEIGHT (FT)	FLOOR AREA (FT ²)	VOLUME (FT ³)	TOTAL SUPPLY AIR (FT ³ /MIN)	VENTILATION AIRFLOW IN (FT ³ /MIN)	EXHAUST/ RETURN AIRFLOW OUT (FT ³ /MIN)	TOTAL AIR CHANGES PER HOUR (O.A. PLUS RECIRC. AIR)	AIR EXCHANGES PER HOUR (MUST BE ≥ 2.0)	FILTER MERV RATING
Hallway 1F B wing North		9.0	1678.9	15110.2	0 FNE	0 FNE	0 FNE	0.0	0.0	#N/A
Hallway 1F B wing South		9.0	1678.9	15110.2	691	459	232	2.7	0.9	#N/A

FNE = "Fan not energized" per Final TAB Report

Avg	4.1	2.6
-----	-----	-----