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SPACE AIR-EXCHANGE PER HOUR CALCULATOR

MORSE SCHOOL, 40 GRANITE STREET, 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 (O.A. ONLY)	FILTER MERV RATING
A1	UV	10.8	918.5	9873.9	658	64	145	4.0	0.4	8
A1/A2 bathroom	EF	8.0	66	528.0			58	0.0	6.6	#N/A
A2	UV	10.8	918.8	9877.1	1006	61	100	6.1	0.4	8
A3	UV	10.8	917.1	9858.8	748	57	55	4.6	0.3	8
A3/A5 bathroom	EF	8.0	46	368.0			0 FNE	0.0	0.0	#N/A
A4	UV	10.8	917.8	9866.4	756	64	60	4.6	0.4	8
A5	UV	10.8	917.5	9863.1	850	185	51	5.2	0.3	8
A4/A6 bathroom	EF	8.0	45.7	365.6			82	0.0	13.5	#N/A
A6	UV	10.8	919.9	9888.9	586	0	71	3.6	0.4	8
A wing hallway	UV-5	8.0	900	7200.0	0 FNE	0 FNE	0 FNE	0.0	0.0	8
B-1 Toilet	EF	7.8	45.7	356.5			136	0.0	22.9	#N/A
B-2 Toilet	EF	7.8	45.5	354.9			26	0.0	4.4	#N/A
B-3	UV	7.7	136.3	1049.5	608	29	0 FNE	34.8	1.7	8
B-5	UV	7.5	148.4	1113.0	628	182	446 FNE	33.9	9.8	8
B Janitor	EF	7.9	11.2	88.5			70	0.0	47.5	#N/A
B Corridor	EF	6.8	77.75	528.7			0 FNE	0.0	0.0	#N/A
B-6	UV	10.8	1250.7	13445.0	756	60	0 FNE	3.4	0.3	8
B-6 Toilet	EF	6.8	30.1	204.7			93	0.0	27.3	#N/A
B-6 Storage	EF	6.8	62.6	425.7			0 FNE	0.0	0.0	#N/A
B-7	UV	10.8	1243.7	13369.8	527	0	0 FNE	2.4	0.0	8
B-7 Toilet		6.8	30	204.9			86	0.0	25.2	#N/A

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B-7 Storage		6.8	62.2	423.0			0 FNE	0.0	0.0	#N/A
B-8	UV	10.8	1134.6	12197.0	716	102	0 FNE	3.5	0.5	8
B-8 Storage		8.4	52.8	444.6			0 FNE	0.0	0.0	#N/A
B-8 Bathroom		7.8	47.4	367.4			120	0.0	19.6	#N/A
B-9	UV	7.8	525.3	4071.1	561	192	0 FNE	8.3	2.8	8
C-1	UV	10.8	840.6	9036.5	856	299	0 FNE	5.7	2.0	8
C-2	UV	10.8	850.8	9146.1	766	0	0 FNE	5.0	0.0	8
C-3	UV	10.8	850.8	9146.1	623	115	0 FNE	4.1	0.8	8
C-4	UV	10.8	851.6	9154.7	941	168	0 FNE	6.2	1.1	8
C-5	UV	10.8	851.2	9150.4	560	65	0 FNE	3.7	0.4	8
C-6	UV	10.8	852.1	9160.1	926	358	0 FNE	6.1	2.3	8
D-2	UV	8.3	135.7	1130.4			46	0.0	2.4	8
D-3	UV	7.3	288	2088.0	625	32	250	18.0	0.9	8
D-4	UV	7.7	285.7	2191.3	594	108	336	16.3	3.0	8
D-5	UV	7.7	279.6	2144.5	560	188	264	15.7	5.3	8
D-6	UV	13.0	771.8	10033.4	394	33	312	2.4	0.2	8
D-6 Toilet		7.9	142.5	1125.8			34	0.0	1.8	#N/A
D-7 Boys Toilet		8.0	253	2024.0			0 FNE	0.0	0.0	#N/A
D-8 Girls Toilet		8.0	276.4	2211.2			0 FNE	0.0	0.0	#N/A
D-9 Teacher's Room	UV	7.5	474.4	3558.0	567	23	0 FNE	9.6	0.4	8
D-10	UV	7.8	510	3978.0	814	259	555 FNE	12.3	3.9	8
D-10 Storage		8.3	67.3	558.6	NO TAB DATA			0.0	0.0	#N/A
D-11	UV	7.9	806.5	6371.4	1182	788	120	11.1	1.1	8
D-11 Storage		1.0	6.6	6.6	NO TAB DATA			0.0	0.0	#N/A
Library	AC-3	10.8	2716	29197.0	3772	294	294	7.8	0.6	13
Library office	AC-3	8.4	168.5	1415.4	206		92	8.7	3.9	13
D-13 Library Work	AC-3	8.4	218.9	1838.8	237		50	7.7	1.6	13
D-15 Server	AC-3	11.1	134.5	1493.0			256	0.0	10.3	13
D-16 Elec	UV	8.3	557	4623.1	870	342	528 FNE	11.3	4.4	8
D-16 Elec Closet	UV						0 FNE	0.0	0.0	8

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D20 Gym	HV-1&2	25.0	6605.1	165127.5	16370	8676	0 FNE	5.9	3.2	13
D21 Gym Office		10.8	134	1440.5	149	0	128	6.2	5.3	#N/A
D21 Gym Off Tlt/Shwr		1.0	67.3	67.3			0 FNE	0.0	0.0	#N/A
D22 Gym Storage		1.0	500	500.0			54	0.0	6.5	#N/A
D23 Mens Locker		10.8	270	2902.5			0 FNE	0.0	0.0	#N/A
D24 Womens Locker		10.8	276	2967.0			140	0.0	2.8	#N/A
D25 Cafeteria		12.0	2855.7	34268.4	16263	9419	6844	28.5	12.0	#N/A
Kitchen	KU	12.0	739.4	8872.8	2161	1293	1228	14.6	8.3	13
Kitchen Vestibule	KU	9.0	105	945.0	186	111	90	11.8	5.7	13
Kitchen Toilet	KU	9.0	53	477.0			0 FNE	0.0	0.0	13
Kitchen Office	KU	10.8	54.9	590.2	67	40	159	6.8	4.1	13
Kitchen Storage	KU	10.8	105.8	1137.4	54	32		2.8	1.7	13
D-26 Mens Room	EF	8.0	53	424.0			18	0.0	2.5	#N/A
D-27 Women's Room		8.0	114.4	915.2			0 FNE	0.0	0.0	#N/A
D-28 Nurse	UV-N	7.9	293.6	2319.4	30	12	120	0.8	0.3	8
D-29	UV-N	9.3	104.6	972.8	235	96	124	14.5	5.9	8
D-30 Nurse Toilet	UV-N	7.9	50.3	397.4		0	0 FNE	0.0	0.0	8
D-31 Principal	UV-N	7.9	195	1540.5	296	121	141	11.5	4.7	8
D-32 Asst Principal	UV-N	7.9	167.9	1326.4	226	93	151	10.2	4.2	8
D33 Conf Rm	UV-N	7.9	282.2	2229.4	307	126	205	8.3	3.4	8
D34 Main Office	UV-N	9.3	518	4817.4	364	149	116	4.5	1.4	8
Lobby	UV-N	8.0	??	??			150	0.0	0.0	8
D37	UV-N	7.8	104	806.0	65	27	0 FNE	4.8	2.0	8
D38	UV-N	7.8	150.3	1172.3	115	47	0 FNE	5.9	2.4	8
D39	UV-N	7.8	112.3	875.9	70	29	0 FNE	4.8	2.0	8
Janitors closet		7.9	23.2	183.3			0 FNE	0.0	0.0	#N/A
Auditorium		12.0	1800	21600.0	5591	2320	0 FNE	15.5	6.4	#N/A
D Corridor		8.0	1450	11600.0	265	0	150	1.4	0.8	#N/A
D45 Auditorium Storage		8.8	92	809.6			55	0.0	4.1	#N/A
D41	UV-4	11.2	1074.6	11992.5	0 FNE	0 FNE	0 FNE	0.0	0.0	8

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D41 kiln		1.0	57.4	57.4	Room was locked			0.0	0.0	#N/A
D42		7.8	161.8	1262.0	146	0	71	6.9	3.4	#N/A
D42 st		1.0	23.3	23.3	0	NO TAB DATA	0	0.0	0.0	#N/A
D43		11.2	1168.5	13052.1	615	0	586	2.8	2.7	#N/A
D43 ADDED RM		11.2	260	1464.6	386	0	539	15.8	22.1	#N/A
D44		8.0	125.5	1004.0	37	0	77	2.2	4.6	#N/A
D46	UV	8.0	165.1	1320.8	0 FNE	0 FNE	127	0.0	5.8	8
D47	EF	8.0	144.3	1154.4			71	0.0	3.7	#N/A
D48	UV-3	8.1	475	3847.5	544	295	404	8.5	4.6	8
E1	UV-4	10.8	861.7	9263.3	830	0	298	5.4	1.9	8
E2	UV-4	10.8	857.5	9218.1	628	46	236	4.1	0.3	8
E3	UV-4	10.8	863.9	9286.9	857	63	308	5.5	0.4	8
Janitor st	EF	7.9	24.6	194.3			0 FNE	0.0	0.0	#N/A
E4A Girls bathroom	EF	7.9	272.2	2155.8			0 FNE	0.0	0.0	#N/A
E4B Boys bathroom	EF	7.9	304.1	2402.4			0 FNE	0.0	0.0	#N/A
E5	UV-4	10.8	853.7	9177.3	815	0	442	5.3	2.9	8
E6	UV-4	10.8	865.6	9305.2	683	78	375	4.4	0.5	8
E7	UV-4	10.8	854.2	9182.7	0 FNE	0 FNE	454	0.0	3.0	8
E8	UV-4	10.8	861.4	9260.1	754	0	436	4.9	2.8	8
E9		8.0	256.9	2055.2	661	305	315	19.3	8.9	#N/A
E-10A Mens Room		8.0	49.1	392.8			0 FNE	0.0	0.0	#N/A
E-10B Womens Room		8.0	48.9	391.2			0 FNE	0.0	0.0	#N/A
E11	UV-4	10.8	1076.8	11575.6	592	0	734	3.1	3.8	8
E11A Sci st	UV-3	8.0	190.9	1527.2			0 FNE	0.0	0.0	8
E12	UV-3	12.4	386.5	4800.3	793	63	334	9.9	0.8	8
E12 st		9.0	17.8	160.2	NO TAB DATA			0.0	0.0	#N/A
Hallway		9.0	10683.1	96147.9	NO TAB DATA			0.0	0.0	#N/A
Boiler room	HV-1	1.0	1088.1	1088.1	NO TAB DATA			0.0	0.0	#N/A
Elec Rm Off Boiler Rm		1.0	224.1	224.1	NO TAB DATA			0.0	0.0	#N/A
Gen Rm Off Elec Rm		1.0	163.8	163.8	NO TAB DATA			0.0	0.0	#N/A

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FNE = "Fan not energized" per Final TAB Report

Avg	4.7	3.5
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