

Ventilation Sizing Summary for Ground Floor OA Calculation

1. Summary	ASHRAE Std 62.1-2007
Ventilation Sizing Method	Design Condition
Occupant Density (D)	Minimum Row (Seating)
Unconditioned Outdoor Air Intake (V _u)	4227 CFM
System Ventilation Efficiency (E _v)	0.80
Outdoor Air Intake (V _o)	7784 CFM (1)

Zone Name / Space Name	Mult.	Minimum Supply Air (CFM)	Space Floor Area (V _{sp}) (V _{sp})	Area Outdoor Air Rate (CFM/ft ²) (Ra)	Time Averaged Occupancy (Persons) (Pa)	People Outdoor Air Rate (CFM/person) (Pr)	Air Distribution Effectiveness (E _a)	Space Zone Outdoor Air (CFM) (V _{zo})	Breathing Zone Air (CFM) (V _{br})	Space Ventilation Efficiency (E _v)
Zone 1										
2.0.C.500 Fitness Corr	1	156	410.0	0.06	5.0	20.00	0.80	156	123	0.800
2.0.C.500 Fitness Desk	1	156	410.0	0.06	5.0	20.00	0.80	156	123	0.800
2.0.C.500 Fitness Int	1	700	1600.0	0.06	25.0	20.00	0.80	700	560	0.800
2.0.C.500 Fitness Int 2	1	1050	1500.0	0.06	37.5	20.00	0.80	1050	840	0.800
2.0.C.500 Fitness Int 3	1	1491	2130.0	0.06	53.3	20.00	0.80	1491	1193	0.800
2.0.C.501 Group Class Ex	1	336	460.0	0.06	12.0	20.00	0.80	336	269	0.800
2.0.C.501 Group Class Int	1	613	875.0	0.06	21.9	20.00	0.80	613	490	0.800
2.0.C.503 AV	1	12	80.0	0.12	0.0	0.00	0.80	12	72	0.800
2.0.C.504 Storage	1	12	80.0	0.12	0.0	0.00	0.80	12	72	0.800
2.0.C.505 Dry Lockers	1	300	665.0	0.06	10.0	20.00	0.80	300	240	0.800
2.0.C.506 Restroom	1	7	95.0	0.06	1.0	0.00	0.80	7	5	0.800
2.0.C.508 Men's Lockers	1	58	775.0	0.06	15.0	0.00	0.80	58	47	0.800
2.0.C.509 Restroom	1	8	100.0	0.06	1.0	0.00	0.80	8	6	0.800
2.0.C.511 Massage	1	11	150.0	0.06	2.0	0.00	0.80	11	9	0.800
2.0.C.512 Women's Locker	1	74	980.0	0.06	18.0	0.00	0.80	74	59	0.800
2.0.C.515 Office	1	18	155.0	0.06	1.0	5.00	0.80	18	14	0.800
2.0.C.516 HRC Office	1	18	160.0	0.06	1.0	5.00	0.80	18	14	0.800
2.0.C.517 HRC Exam	1	24	190.0	0.06	1.5	5.00	0.80	24	19	0.800
2.0.C.518 HRC Reception	1	48	380.0	0.06	3.0	5.00	0.80	48	38	0.800
2.0.C.520 HRC Mixed Use	1	39	490.0	0.06	4.0	5.00	0.80	39	31	0.800
2.0.C.521 Sun Room	1	326	470.0	0.06	11.8	20.00	0.80	326	263	0.800
2.0.C.6 Focus	1	18	75.0	0.06	2.0	5.00	0.80	18	14	0.800
2.0.C.6 Focus	1	18	75.0	0.06	2.0	5.00	0.80	18	14	0.800
2.0.E.307 Circulation	1	109	1400.0	0.06	0.0	5.00	0.80	109	84	0.800
2.0.E.308 Lobby	1	48	640.0	0.06	0.0	5.00	0.80	48	38	0.800
2.0.E.309 Circulation	1	77	1025.0	0.06	0.0	5.00	0.80	77	61	0.800
2.0.E.309 Open Collab	1	55	400.0	0.06	4.0	5.00	0.80	55	44	0.800
2.0.E.310 Open Collab	1	68	570.0	0.06	4.0	5.00	0.80	68	54	0.800
2.0.E.400 Micro-Market	1	34	450.0	0.06	0.0	5.00	0.80	34	27	0.800
2.0.E.400 Micro-Market E	1	150	335.0	0.06	20.0	5.00	0.80	150	120	0.800

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2.0.E.401 Support	1	16	145.0	0.06	0.8	5.00	0.80	16	13	0.800
2.0.E.402 Storage Ext	1	8	100.0	0.06	0.0	5.00	0.80	8	6	0.800
2.0.E.402 Storage Int	1	16	210.0	0.06	0.0	5.00	0.80	16	13	0.800
2.0.E.924 Vestibule	1	11	150.0	0.06	0.0	5.00	0.80	11	9	0.800
2.0.E.8 Training Ext.	1	70	350.0	0.06	7.0	5.00	0.80	70	56	0.800
2.0.E.8 Training Int.	1	147	370.0	0.06	19.0	5.00	0.80	147	117	0.800
2.0.E.8 Training Ext. NW	1	60	300.0	0.06	6.0	5.00	0.80	60	48	0.800
2.0.E.8 Training Int.	1	169	750.0	0.06	19.0	5.00	0.80	169	135	0.800
2.0.E.8 Training Ext. NE	1	61	225.0	0.06	7.0	5.00	0.80	61	49	0.800
2.0.E.8 Training Ext. NW	1	56	245.0	0.06	6.0	5.00	0.80	56	45	0.800
2.0.E.8 Training Int.	1	144	650.0	0.06	15.0	5.00	0.80	144	113	0.800
2.0.E.8 Training Int.	1	147	715.0	0.06	15.0	5.00	0.80	147	118	0.800
2.0.E.8 Training Int.	1	147	715.0	0.06	15.0	5.00	0.80	147	118	0.800
2.0.E.8 Training Ext. SE	1	194	360.0	0.06	12.0	5.00	0.80	194	153	0.800
2.0.E.8 Training Int.	1	195	600.0	0.06	24.0	5.00	0.80	195	156	0.800
2.0.E.8 Training Ext.	1	161	550.0	0.06	12.0	5.00	0.80	161	127	0.800
2.0.E.8 Training Int.	1	165	600.0	0.06	24.0	5.00	0.80	165	130	0.800
2.0.E.1 Conference	1	38	175.0	0.06	4.0	5.00	0.80	38	31	0.800
2.0.E.1 Conference	1	38	175.0	0.06	4.0	5.00	0.80	38	31	0.800
Totals (incl. Space Multipliers)		7784						7784	6227	0.800

MO.005 HQ2 - GROUND FLOOR AIR OUTSIDE AIR TABLE
 NO SCALE

OUTSIDE AIR CALCULATION/TABLE NOTES:
 (APPLY THIS SHEET ONLY)
 1. BALANCE OUTSIDE AIR SYSTEM SERVING THE SPACE TO PROVIDE, AT A MINIMUM, THE OUTSIDE AIR RATE INDICATED.
 2. MECHANICAL SYSTEMS FOR VAVS HAVE BEEN DESIGNED TO PROVIDE A SUPPLY AIR TEMPERATURE LESS THAN 15°F ABOVE SPACE TEMPERATURE AND REACH WITHIN 4 FEET OF FLOOR LEVEL AT 150 FPM.

Ventilation Sizing Summary for FLOOR 1

1. Summary	ASHRAE Std 62.1-2010
Ventilation Sizing Method	Design Condition
Occupant Density (D)	Minimum Row (Seating)
Unconditioned Outdoor Air Intake (V _u)	8026 CFM
System Ventilation Efficiency (E _v)	0.80
Outdoor Air Intake (V _o)	8157 CFM (1)

Zone Name / Space Name	Mult.	Minimum Supply Air (CFM)	Space Floor Area (V _{sp}) (V _{sp})	Area Outdoor Air Rate (CFM/ft ²) (Ra)	Time Averaged Occupancy (Persons) (Pa)	People Outdoor Air Rate (CFM/person) (Pr)	Air Distribution Effectiveness (E _a)	Space Zone Outdoor Air (CFM) (V _{zo})	Breathing Zone Air (CFM) (V _{br})	Space Ventilation Efficiency (E _v)
EXTERIOR										
1.FL EX 302 OPEN OFF NE	1	354	1720.0	0.06	36.0	5.00	0.80	354	283	0.800
1.FL EX 302 OPEN OFF NW	1	86	640.0	0.06	6.0	5.00	0.80	86	68	0.800
1.FL EX 311 CIRC	1	110	1470.0	0.06	0.0	5.00	0.80	110	88	0.800
1.FL EX 313 LOBBY	1	84	450.0	0.06	8.0	5.00	0.80	84	67	0.800
1.FL EX 314 LOBBY	1	57	430.0	0.06	4.0	5.00	0.80	57	46	0.800
1.FL EX 317 OPEN COL SE	1	154	715.0	0.06	16.0	5.00	0.80	154	123	0.800
1.FL EX 317 OPEN COL SW	1	132	625.0	0.06	10.0	5.00	0.80	132	106	0.800
1.FL EX 322 OPEN OFF NW	1	48	365.0	0.06	3.0	5.00	0.80	48	38	0.800
1.FL EX 322 OPEN OFF SW	1	448	2240.0	0.06	43.0	5.00	0.80	448	359	0.800
1.FL EX 407 OFFICE	1	20	160.0	0.06	1.0	5.00	0.80	20	16	0.800
1.FL EX 413 WATER STAT	1	45	430.0	0.06	2.0	5.00	0.80	45	36	0.800
1.FL EX 505 VESTIBULE	1	10	130.0	0.06	0.0	5.00	0.80	10	8	0.800
1.FL EX CLIPPER	1	96	1275.0	0.06	0.0	5.00	0.80	96	77	0.800
1.FL EX CONF CE	1	47	295.0	0.06	4.0	5.00	0.80	47	38	0.800
INTERIOR										
1.FL IN 300 CIRC	1	86	1140.0	0.06	0.0	5.00	0.80	86	68	0.800
1.FL IN 302 OPEN OFFICE	1	1152	8110.0	0.06	87.0	5.00	0.80	1152	922	0.800
1.FL IN 306 ELEV LOBBY	1	21	275.0	0.06	0.0	5.00	0.80	21	17	0.800
1.FL IN 307 CIRC	1	62	630.0	0.06	0.0	5.00	0.80	62	50	0.800
1.FL IN 310 CIRC	1	79	1050.0	0.06	0.0	5.00	0.80	79	63	0.800
1.FL IN 315 HENTZ	1	265	2250.0	0.06	16.0	5.00	0.80	265	212	0.800
1.FL IN 316 OPEN COL	1	337	1410.0	0.06	37.0	5.00	0.80	337	270	0.800
1.FL IN 318 OPEN COL	1	399	1670.0	0.06	38.0	5.00	0.80	399	317	0.800
1.FL IN 322 OPEN OFFICE	1	1298	7940.0	0.06	98.0	5.00	0.80	1298	999	0.800
1.FL IN 400 PANTRY	1	192	730.0	0.06	22.0	5.00	0.80	192	154	0.800
1.FL IN 401 FRONT	1	36	400.0	0.06	0.0	5.00	0.80	36	29	0.800
1.FL IN 402 STORAGE	1	26	345.0	0.06	0.0	5.00	0.80	26	21	0.800
1.FL IN 403 STORAGE	1	15	200.0	0.06	0.0	5.00	0.80	15	12	0.800
1.FL IN 406 GENIUS BAR	1	41	295.0	0.06	3.0	5.00	0.80	41	33	0.800
1.FL IN 407 OFFICE	1	18	150.0	0.06	1.0	5.00	0.80	18	14	0.800

Ventilation Sizing Summary for FLOOR 1

1.FL IN 408 LOCKERS	1	45	605.0	0.06	0.0	5.00	0.80	45	36	0.800
1.FL IN 409 STORAGE	1	4	50.0	0.06	0.0	5.00	0.80	4	3	0.800
1.FL IN 410 WELLNESS	1	11	65.0	0.06	1.0	5.00	0.80	11	9	0.800
1.FL IN 413 WATER STAT	1	115	1290.0	0.06	3.0	5.00	0.80	115	92	0.800
1.FL IN 914 TOILET	1	4	55.0	0.06	0.0	5.00	0.80	4	3	0.800
1.FL IN 915 TOILET	1	4	55.0	0.06	0.0	5.00	0.80	4	3	0.800
1.FL IN CLIPPER	1	1143	4240.0	0.06	132.0	5.00	0.80	1143	914	0.800
1.FL IN CONF CA	1	98	470.0	0.06	10.0	5.00	0.80	98	78	0.800
1.FL IN CONF CB	1	132	590.0	0.06	14.0	5.00	0.80	132	105	0.800
1.FL IN CONF CE	1	83	435.0	0.06						