



AAPS Ventilation Study Overview

In accordance with AAPS' commitment to health and safety for students and staff, we are preparing our classrooms and buildings across the district for a COVID-informed return to in-person learning. To that end, and concurrent with robust building preparation work in accordance with CDC guidelines and other resources, the AAPS has completed a number of steps to improve indoor air quality, including:

Building Controls Programming, Filter Replacements and HVAC Systems Commissioning

- Programmed a new sequence of operations for the HVAC controls system (Enhanced Indoor Air Quality Mode (EIAQ)) to provide increased ventilation, intake of outside air, and filtration above our typical operating mode, and well beyond code minimum.
- Replaced all filters and increased their density as much as the equipment will allow
- Commissioned all HVAC units (approximately 1,000) including opening the unit, cleaning everything, and verifying the proper operation of items like dampers and actuators.

Room by Room Ventilation Rate Study and Mitigation Actions

- The district has commissioned Fishbeck, a professional engineering firm, to conduct a detailed room-by-room ventilation study for all AAPS buildings. The deliverables of this study include floor plans indicating air changes per hour (ACH) levels by room as well as a summary in the form of an Excel chart. Air changes per hour (ACH) is a measure of how many times the air in a room is replaced, by either outside air or recirculated filtered air, within one hour.
- The Harvard School of Public Health sets ACH levels of five (5) and above to have excellent ventilation.
- Those spaces that fall below 5 ACH will be provided portable air cleaners and/or fans to provide additional air changes to raise the ACH above 5.

Below you will find the results of the ventilation engineering study conducted at your school. The report documents existing ventilation rates in Air Changes per Hour (ACH) as well as any mitigation actions that will be completed prior to a return to in-person instruction.

SLAUSON MIDDLE SCHOOL

Equipment	Space	Area (ft2)	Ceiling Height (ft)	Supply Air Flow (cfm)	Supply Air Changes per Hour (ACH)	Supply Air Changes per Hour (ACH) with Corrective Actions
AHU-1	Overall System	15,503	9	25,755	11.1	11.1
	Graphic Classroom 121 (typical)	2,288	9	2,745	8.0	8.0
	105 Industrial Art Classroom (typical)	540	9	650	8.0	8.0
	D108 (typical)	730	9	890	8.1	8.1
	D107 (typical)	625	9	760	8.1	8.1
	B231 (221) Media Center	3,901	9	2,700	4.6	5.1
	B239 (240) Classroom (typical)	1,050	9	1,860	11.8	11.8
	B222 (211) Classroom (typical)	680	9	840	8.2	8.2
	B226 (205) Classroom (typical)	675	9	800	7.9	7.9
	B216 Office (typical)	196	9	125	4.3	13.3
	B217 Office (typical)	290	9	180	4.1	10.2
	B218 Office (typical)	240	9	150	4.2	11.5
	B235 Workroom	410	10	490	7.2	7.2
	B324 (301) Classroom (typical)	1,000	10	800	4.8	6.6
	B325 (323) Classroom (typical)	1,170	10	1,395	7.2	7.2
	B326 (321) Classroom (typical)	1,045	10	1,240	7.1	7.1
	B327 (319) Classroom (typical)	1,070	10	1,260	7.1	7.1
	B318 Staff Workroom	215	10	135	3.8	11.2
	B317 Conference Rm	120	10	75	3.8	17.0
	B313 Office	150	10	90	3.6	14.2
	B319 (311) Classroom (Typical)	1,055	10	1,245	7.1	7.1
UV	B340	732	9	1,000	9.1	9.1
UV	B342	762	9	1,000	8.7	8.7
UV	B344	766	9	1,000	8.7	8.7
UV	B346 & b348	746	9	1,000	8.9	8.9
UV	C100	725	9	750	6.9	6.9
UV	C101	664	9	750	7.5	7.5
UV	242 Classroom	740	10	750	6.1	6.1
UV	244 Classroom	715	10	750	6.3	6.3
UV	246 Classroom	740	10	750	6.1	6.1
	C300 Office/Science	3,150	12	4,000	6.3	6.3
AHU-F2	Music Area	5,101	11	4,866	5.2	5.2
LCUV 6	M203 Stage Craft	620	9	900	9.7	9.7
AHU-F3	Gym West	2,938	28	10,500	7.7	7.7
AHU-F4	Gym East	2,938	28	10,500	7.7	7.7
AHU-F5	Aux. Gym (Basement)	3,460	12	5,000	7.2	7.2
AHU-F6	Lower Gym	3,588	20	9,100	7.6	7.6
AHU-F8	Main Fan Ventilation	34,191	12	53,553	7.8	7.8
AHU-F9	Cafeteria and Kitchen	4,080	10	8,432	12.4	12.4
AHU-F10	Main Office	2,700	9	2,130	5.3	5.3
AHU-F11	Auditorium	4,125	23	7,333	4.6	5.4
	Rec. Room, Classroom	5,144	9	8,000	10.4	10.4
MAU	Men/Women Lockerroom D118/D141	4,620	9	8,875	12.8	12.8
LCUV #1	Rm 142	1,800	9	3,000	11.1	11.1
LCUV #1	Rm 146	1,750	9	3,000	11.4	11.4
RAF D1	Pool	10,407	24	5,725	1.4	5.0

Corrective Action(s)

AHU-1	B231 (221) Media Center	3,901	9	2,700	4.6	
Add (1) 300 CFM Goodyear Portable Air Cleaner		3,901	9	3,000	5.1	
	B216 Office (typical)	196	9	125	4.3	
Add (1) 265 CFM Trio Portable Air Cleaner		196	9	390	13.3	
	B217 Office (typical)	290	9	180	4.1	
Add (1) 265 CFM Trio Portable Air Cleaner		290	9	445	10.2	
	B218 Office (typical)	240	9	150	4.2	
Add (1) 265 CFM Trio Portable Air Cleaner		240	9	415	11.5	

	B324 (301) Classroom (typical)	1,000	10	800	4.8
Add (1) 300 CFM Goodyear Portable Air Cleaner		1,000	10	1,100	6.6
	B318 Staff Workroom	215	10	135	3.8
Add (1) 265 CFM Trio Portable Air Cleaner		215	10	400	11.2
	B317 Conference Rm	120	10	75	3.8
Add (1) 265 CFM Trio Portable Air Cleaner		120	10	340	17.0
	B313 Office	150	10	90	3.6
Add (1) 265 CFM Trio Portable Air Cleaner		150	10	355	14.2
AHU-F11	Auditorium	4,125	23	7,333	4.6
Add (4) 300 CFM Goodyear Portable Air Cleaners		4,125	23	8533	5.4
RAF D1	Pool	10,407	24	5,725	1.4
Add (2) 7,000 CFM Industrial Fans In Exterior Doors		10,407	24	19,725	4.7
Add (3) 300 CFM Goodyear Portable Air Cleaners		10,407	24	20,625	5.0