ANN ARBOR PUBLIC SCHOOLS
LEAD. CARE. INSPIRE.

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.

FORSYTHE 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
RTU-113	RM 113	1,372	9	1,200	***5.8***	5.8
RTU-1	Outer Offices D144 and D145	2,123	9	2,000	***6.3***	6.3
RTU-2	Inner Offices	1,226	9	1,200	***6.5***	6.5
RTU-3	Classrooms 308 and 309	977	9	950	***6.5***	6.5
AHU-F1	Classrooms 400, 500, and 600	15,160	9	28,000	***12.3***	12.3
AHU-F2	Gym	7,131	22	16,000	***6.1***	6.1
AHU-F3	Kitchen / serve	2,950	9	2,250	***5.1***	5.1
AHU-F3	Multipurpose / Café	8,149	14	12,750	***6.7***	6.7
AHU-F4	Classrooms 300	5,627	9	14,300	***16.9***	16.9
AHU-F5	Classrooms 100	4,032	9	11,000	***18.2***	18.2
AHU-F6	Music	3,920	14	7,000	***7.7***	7.7
AHU-F7	Aux Gym	3,303	22	5,200	***4.3***	**5.0**
DU-1	Pool	3,881	20	9,000	***7.0***	7.0
FCU-1	Office D141	262	9	270	***6.9***	6.9
FCU-2	Office D142	178	9	190	***7.1***	7.1
HVAC1-RTU	Media Center	5,628	9	5,985	***7.1***	7.1
HVAC1-RTU	Science Room 513 (typical)	1,136	9	1,300	***7.6***	7.6
ERU-1	Men's Locker	2,696	9	4,000	***9.9***	9.9
ERU-2	Women's Locker	2,796	9	3,950	***9.4***	9.4
UV	Classroom 616	1,325	9	1,250	***6.3***	6.3
UV	Classroom 615	1,325	9	1,250	***6.3***	6.3
AHU-1	Auditorium	8,141	18	15,000	***6.1***	6.1
AHU-2	Lobby	2,946	25	7,850	***6.4***	6.4
AHU-2	Stage	2,125	9	2150	***6.7***	6.7

Corrective Action(s)

AHU-F7	Aux Gym	3,303	22	5,200	***4.3***
Add (3) 300 CFM Goodyear Portable Air Cleaners		3,303	22	6,100	**5.0**