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Subject: **Ventilation Screening**
Clara Barton School No. 2 Rochester, NY
190 Reynolds Street, Rochester, NY 14608

On Wednesday, January 27, 2021, Ed Olmsted and Margaret Sergent, representing the Rochester, NY Teachers Association (RTA) inspected representative classrooms at Clara Barton School No. 2 located at 190 Reynolds Street, Rochester. The survey team also included a representative of the Rochester City School District (RCSD), Matthew Seeger, Schools Facilities Management.

The survey was done as part of the exposure control program for pandemic SARS-CoV-2. RCSD instituted many exposure control measures for the coming year including mandatory wearing of masks, distancing of occupants (reduced occupancy), enhanced cleaning, in-school COVID-19 testing, operating the ventilation systems with a maximum fraction of outside air, installation of ASHRAE MERV 13 filters, where the HVAC units can accommodate them, and the provision of air purifiers to all occupied spaces. Each school will temperature screen entrants and have a nurse's office. Students with symptoms or suspected of having COVID-19 will be isolated in an isolation room. More information on the RCSD reopening plans can be found on the [RCSD website](#).

The building is intended to be utilized in the Phase 2 February reopening for blended and in-school classes. This inspection was requested prior to the staff and students' return. The survey included the following:

1. A visual inspection of a number of representative classrooms;
2. A visual inspection of the building ventilation system(s); and
3. Taking airflow measurement at supply outlets, return/exhaust grilles, and univents using a TSI 9515 VelociCalc Air Velocity Meter (anemometer).

The findings include:

1. School No. 2 has a combination of ventilation methods in its newer and older wing.

- a. In the older wing of the building, most classrooms and offices are served by unit ventilators or univents located under the windows in each classroom. The units are integrated into the shelving unit under the windows. The univents are standalone units that have a heating coils and outside air inlet. Return air is drawn in through the base of the unit and outside air through a sleeve that penetrates through the wall to the outside. The outside air grille can be viewed typically outside the building under the windows.
 - b. The newer wing has several air handler units located in mechanical rooms that serve large public assembly spaces such as the cafeteria, kitchen, and the Maker's Room; and dedicated outdoor air systems (DOAS) on the roofs that serve the gym and the vertical unit ventilators in classrooms and offices.
2. The air handler units that serve large public assembly spaces such as the cafeteria, kitchen and the Maker's Room, were noted to have been fitted with MERV-13 filters. RCSD Facilities is waiting for additional shipments of MERV-13 filters. In the meantime, the Dedicated Outside Air System (DOAS) air handlers are operated with all outside air and no recirculation of indoor air. Outside air is safe and does not require filtration for viral particles. However, recirculated (return) air may contain particles that contain the virus especially if there is an infected person in the building. Operating the system with maximum outside air and exhausting all or most of the return (recirculated air) can bypass the need for filtration until more MERV-13 filters arrive and can be installed in the unit.
 3. Classrooms and office spaces visited included Rooms 102, 101, 104, 105, 103, 106, 107, 123 (main office), 252, 254, and 260. With the exception of Room 123 which has its own dedicated rooftop unit, the classrooms visited were all served by vertical unit ventilators (univents) and relief return. The univents in all these classrooms were all operational. In addition, the exhaust in the bathrooms located in classrooms with adjoining bathrooms, Rooms 101, 102, 106 and 107, were also found to be operational.

CONCLUSIONS

The classrooms have univents and operable windows that provide outside air. It was found at the time of the inspection that School No. 2's ventilation system was operational and is capable of providing sufficient ventilation capacity to be occupied. In light of the findings the following recommendations are made.

- 1) The univents should be run continuously when the classroom is occupied. In addition, pedagogical staff should not tamper with the univent to turn them off, instead consult the building engineer to address excess temperatures.
- 2) Do not block exhaust intakes and keep the tops of the univents clear of stored materials.
- 3) The univents provide outside air in most classrooms. However, where possible and if necessary, teachers can open two windows in each room to an opening of two inches. This will provide natural ventilation without causing the room to become cold.
- 4) Install MERV 13 filter as soon as they arrive. Until they have been installed and for the building to be safely occupied, RCSD Facilities should continue to adjust and operate the building's ventilation system so that it minimized or as closely as possible eliminate the amount of recirculated air mixed with the outside air.



Vertical univent located in Room 254 that serves Room 252 and 254



MERV-8 filter inside DOAS, unit is operating to provide maximum outside air



Univent located in Room 101



Exterior outside intake grilles seen underneath the windows