

# **OLMSTED ENVIRONMENTAL SERVICES, INC.**

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Subject: **Ventilation Screening**  
**Abraham Lincoln School No. 22**  
**595 Upper Falls Blvd, Rochester, NY 14605**

On Thursday, January 28, 2021, Ed Olmsted and Margaret Sergent, representing the Rochester, NY Teachers Association (RTA) inspected representative classrooms at Abraham Lincoln School No. 22 located at 595 Upper Falls Blvd, 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.
  - a. Most classrooms and offices are served by vertical unit ventilators (VUV). They appear as large gray units in the corner of the room. One unit can serve two neighboring rooms. These univents are standalone units that have heating coils and outside air inlet. The units draw return air through grilles located on the shelving unit at the base of the windows and also draws outside air through a sleeve that penetrates through the wall to the outside. That outside air is heated and filtered before it is delivered into the room usually at grilles located at a ceiling soffit near the unit. The outside air grille can be viewed typically outside the building under the windows. The VUVs currently utilizes MERV 8 filters and RSCD Facilities is waiting for additional shipments of MERV-13 filters.
  - b. Rooms such as larger public assembly spaces that do not have a dedicated VUV are served by air handler units. These air handler units were fairly new and in good shape. It was noted to have been fitted with MERV 8 pre-filters and MERV-13 or higher filters.
2. Classrooms and offices spaces visited included Rooms 95, 105, 132, 138, the nurse's office, 206 and 207B. The univents in all these rooms were all operational. But it was noted that in multiple rooms, the returns on top of the shelving units by the windows were cluttered with stored materials. This will impede the ventilation rates in those impacted rooms.

## CONCLUSIONS

The classrooms have univents and operable windows that provide outside air. It was found at the time of the inspection that School No. 22'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 return intakes located on the tops of the shelving units by the windows and keep the VUV clear of excess 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 in the VUVs as soon as they arrive.



Typical ventilation scheme in classrooms with (1) operable windows, (2) vertical unit ventilator, (3) supply grilles, and (4) return intakes.



Item stored on top of return intake





Exterior outside intake grilles seen underneath the windows



Inside a VUV. Note the MERV 8 (blue) filter.



Areas not served by a VUV are served by air handler units. This is the filter bank for an AHU and is typical of the units in the building. They include MERV 8 pre-filters in front of MERV 13 or higher box filters.