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Subject: **Ventilation Screening**
Roberto Clemente School No. 8
1180 St Paul St, Rochester, NY 14621

On Thursday, January 28, 2021, Ed Olmsted and Margaret Sergent, representing the Rochester, NY Teachers Association (RTA) inspected representative classrooms at Roberto Clemente School No. 8 located at 1180 St Paul 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 and return/exhaust grilles using a TSI 9515 VelociCalc Air Velocity Meter (anemometer).

The findings include:

1. School No. 8 has a central heating and air conditioning ventilation system that serves all classrooms. In addition, there are operable windows for natural ventilation.
2. The central air handler units are located in mechanical rooms in the penthouse level. There are 4 total that serve the entire building. The units appear modern and well-maintained.
3. The air handler units consist of supply air fans that can provide heating or cooling. There is also a return fan associated with each supply fan that draws return air from a duct riser serving all floors. Return air is drawn back through a ceiling plenum above the drop ceiling. The supply fans provide a mixture of outside air and return air modulated by dampers. Mixed air is filtered through MERV 8 filters and heated or cooled in fan coils in the unit.
4. The ventilation supply system is ducted and terminates in a classroom or office at linear slot diffuser located along the light fixtures on the ceiling. Return air from the classrooms or offices is returned via a passive return egg crate grille into the space above the drop ceiling.
5. As previously mentioned, the air handler units that serve the newer wing were noted to have been fitted with MERV-8 filters. Boxes of new MERV 13 filters were observed in the school and RCSD Facilities were ready to install the MERV 13 filter shortly. In the meantime, the air handlers not fitted with MERV-13 filters are to be operated with a maximum outside air setting and minimum 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. This was observed and confirmed in the examination of the supply and return dampers in the units.
6. All the above-mentioned components of the school's central mechanical ventilation systems and some classroom univents were examined and found to be working.
7. Classrooms and offices spaces visited included Rooms 235, 319 and 320. The supply outlets or univents were screened with a thermal anemometer to determine whether supply air was discharging from the outlet. All rooms visited were found to have a good flow of ventilation air from the supply diffusers or univents.

CONCLUSIONS

Overall, the school's ventilation can help reduce the risk of exposure to SARs-CoV-2 and meets the published guidelines. The mechanical ventilation system is capable of ventilating the building. Replacing the existing MERV 8 filters and installing MERV 13 filters may also reduce the risk of exposure to SARs-CoV-2. Until the MERV 13 filters 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.

In addition, most classrooms also have operable windows that can be used to provide natural ventilation. 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. Lastly, ensure other safety and health precautions, such as mask-wearing, social distancing,

cleaning/sanitization, and routine handwashing, are also practiced to prevent the transmission of SARS-CoV-2.



Standard air handler unit serving the building.



Mixing box inside air handler units. MERV 8 filters installed.



MERV 13 filters shipment at the school. To be installed.



Standard ventilation scheme in classrooms. Operable windows for natural ventilation with mechanical ventilation supply located around the light fixtures and passive return into the ceiling.