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Subject: **Ventilation Screening**
Dr. Martin Luther King Jr. School No. 9
485 N Clinton Ave, Rochester, NY 14605

On Thursday, January 28, 2021, Ed Olmsted and Margaret Sergent, representing the Rochester, NY Teachers Association (RTA) inspected representative classrooms at Dr. Martin Luther King Jr. School No. 9 at 485 N Clinton Avenue, 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. 9 has a central heating and air conditioning ventilation system that serves all classrooms. Each floor is served by 2 air handler units located in a mechanical room on each corresponding floor. The building has operable windows in most rooms but there are interior classrooms and offices that do rely solely on mechanical ventilation.
2. The central air handler units are designed to provide a mixture of outside air and return air modulated by dampers. Each supply fan has an associated return fan. Mixed air is filtered through filters and heated and cooled in either a hot or cool deck duct. At the time of the inspection MERV 8 filters were being utilized in the air handlers.
 - a. During the SARS-CoV-2 pandemic, filters with MERV-13 or higher ratings are recommended for HVAC systems due to their ability to filter smaller particles, including viruses. The air handler units were adjusted at the time of the inspection to provide 100% outside air without any return air (recirculated air). As the system is operating to provide the maximum amount of outside air with no recirculated air, the need for high efficiency filters is offset. Outside air is generally free of SARS-COV2. If the system was recirculating return air, air returned from occupied spaces, filtration should be utilized.
 - b. An air handler unit was noted to be down and in need of replacement parts for repair. RCSD Facilities is aware of the downed unit and is working on expediting full repairs. At minimum, they served Rooms 103, 104, 105, 106, 107, 126, 127, 128, and 129A. These rooms should not be in use until RCSD Facilities confirms that the repairs to the downed air handler unit is complete and that there is air flow at the slot diffusers in these rooms.
3. From the air handler units, that tempered and filtered air is distributed via a system of ductwork. The ductwork terminates in an occupiable space at slot diffusers located on the ceiling around ceiling tiles. In addition, the space above the drop ceiling serves as a return air plenum.
4. Not all rooms could be inspected but a representative number was included in the inspection. These rooms included Rooms 103, 104, 105, 106, 107, 120, 121, 126, 127, 128, 129A, 215A, 215B, 300, 302, 303, 316/317, 319, 318, the library, and the main office suite. The supply outlets were screened with a thermal anemometer to determine whether supply air was discharging from the outlet. With the exception of Rooms 103, 104, 105, 106, 107, 126, 127, 128, and 129A which are served by the downed air handler unit, all other rooms were found to have a good flow of ventilation air.

CONCLUSIONS

Overall, the school's ventilation can help reduce the risk of exposure to SARs-CoV-2 and meets the published guidelines. Though some classrooms and offices in School No. 9 do not have operable windows, the mechanical ventilation system when operational is capable of providing a MERV-13 filtered mixture of outside air and return air. 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. Lastly, there are routine maintenance concerns that should be rectified prior to returning these spaces back for instruction. They include:

- 1) Expedite repairs to the downed air handler unit on the first floor and troubleshoot the lack of supply air distribution noted in Rooms 103, 104, 105, 106, 107, 126, 127, 128, and 129A.

These rooms should not be in use until RCSD Facilities confirms that the repairs to the downed air handler unit is complete and that there is air flow at the slot diffusers in these rooms.

- 2) 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.



Linear slot diffuser located along the ceiling tiles. This is typical of many classrooms visited.