



HVAC Ventilation Update

What are the recommended practices to reduce the risk of transmission of COVID-19?

School Boards are expected to employ multiple strategies to support healthy and safe learning environments for students and staff. In combination with other preventive measures such as hand washing, enhanced cleaning, masking, physical distancing and self-screening by parents, students and staff, optimizing the ventilation within classrooms is an additional strategy to help reduce the risk of transmission.

Measures to help improve the air-quality in indoor settings include:

1. **Ventilation:** Increasing the flow of outdoor/fresh air for diluting the concentration of any infectious particles.
2. **Filtration:** Filtering air to remove infectious particles.

What has the Ministry of Education done to help school boards optimize air quality in schools?

On Aug. 25, 2020 the Ministry of Education allocated \$50 million in new funding in order to optimize the ventilation systems in schools. The allocation for PVNCCDSB is \$367,900 (an average of \$10,000 per school) and eligible expense for the new funding are as follows:

- Upgrading current air filters to the highest possible MERV (Minimum Efficiency Reporting Value) and increasing the frequency in which filters are replaced to ensure maximum air flow (filters and installation costs);
- Performing recommissioning of current HVAC (Heating Ventilation and Air Conditioning) systems to optimize air circulation and pressure, ensuring systems are meeting performance targets; and
- Purchasing portable air filtration systems with HEPA (High-Efficiency Particulate Air) filters for classrooms that have limited air ventilation/fresh air options.

What has PVNC done to improve air quality in its schools?

- The controls for our building automation systems have been adjusted to increase the amount of fresh air flowing into the schools by extending the length of time air handling equipment operates, and increasing the air flow volume by as much as 30%. The efficiency of those systems is being monitored on a more frequent basis by our building management system contractors and our own facilities services staff.
- Filters for mechanical ventilation in schools were all replaced with clean MERV 10 filters in August, prior to the Ministry's announcement. MERV 13 filters have been ordered for the air handling equipment that can accommodate the higher resistance, and filter changes will occur throughout the school year on a more frequent basis.
- Facilities services have contracted with a qualified mechanical engineering firm to review the effectiveness of our current ventilation systems on a room-by-room basis. The mechanical drawings of each school will be reviewed along with the manufacturer recommendations. Recommendations made by the contractor will be reviewed and, where possible, implemented in a systematic manner as part of short and long-term planning.
- Classroom spaces that have either partial or no mechanical ventilation will be augmented with new portable HEPA units, which will be installed in schools immediately.

What about portable classrooms?

In recent years, the Board has been replacing older portables with new ones that have excellent air handling capacity and no additional supports are required for those portables. Where an older portable is being used as a classroom for the 2020/2021 school year, a portable HEPA unit will be provided.

