



## BETTER AIR | FOR SCHOOLS

The American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) has formed the ASHRAE Epidemic Task Force to provide guidance for building operations in response to the COVID-19 pandemic. The primary document released by the task force, "ASHRAE Position Document on Infectious Diseases," provides a summary of the issues presented by infectious diseases and the effect of HVAC systems on their transmission, through design and operation. This document has also been adapted by ASHRAE into documentation for specific building types, including **Schools and Universities**.

The HVAC recommendations from ASHRAE for Schools and Universities are listed on the following page. For convenience, we have categorized them by levels of increasing complexity and cost, Level 1 being the simplest and most inexpensive.

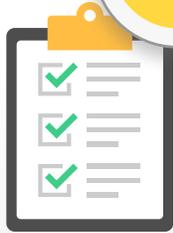
EP offers consultation and commissioning services to Owners and Operators looking to reopen their schools. We will audit your school and provide a complete BETTER AIR feasibility analysis as well as perform commissioning on all of your mechanical systems.



Disclaimer: The information in this presentation is based on the recommendations provided by the above agencies and do not represent the opinions or advice of EP Engineering

LEVEL

1

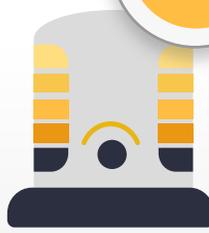


## Maintain

- Service**  
Observe, service & clean all existing air conditioning systems, ERVs, outside air & exhaust air louvers, fans and dampers.
- Verify**  
Check controls sequences & air side economizers are operating and that a relative humidity between 40-60% is maintained throughout the space.
- Filter**  
Clean/replace all air filters and establish an aggressive schedule for replacement.
- Program**  
Review/Adjust HVAC programming to ventilate or “flush” spaces two hours before and after occupancy. This includes operating exhaust fans and opening outside air dampers to full-open position.
  - If outdoor ambient conditions are moderate, consider opening all windows for a minimum of two hours before reoccupation.
  - Run toilet exhaust continuously

LEVEL

2

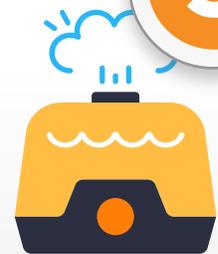


## Improve & Enhance

- MERV 13 Filtration**  
Replace all filters with minimum MERV 13. Review filter compatibility with application & equipment and rebalance associated systems.
- Retro-Commission**  
Analyze ability to increase outside air for existing systems beyond code minimums and perform adjustments.
- Maximize Ventilation**  
Analyze ability to increase outside air for existing systems beyond code minimums and perform adjustments. Review system capacity and requirements based on new classroom occupancies.
- Nurse’s Office**  
Retrofit as isolation room or create temporary nurse’s station that can be contained.
  - Maintain pressurization
  - Dedicated HVAC on exterior wall
  - Adjust programming for “Isolation Mode” and “Normal Mode”
  - 100% OA system, 10 air changes per hour
  - MERV 14 or HEPA filtration

LEVEL

3



## Add & Expand

- UV**  
Install UVGI (Ultraviolet Germicidal Irradiation) for high-risk spaces in ductwork, equipment, or space.
- Air Scrubber**  
Add portable air cleaners with HEPA or high-MERV filters.
- Increase Air**  
If existing system cannot handle more outside air, add Dedicated Outdoor Air System (DOAS) for increased ventilation throughout space.
- Humidify**  
Add humidification systems (duct mounted or in space) if relative humidity cannot be maintained between 40-60%.

Disclaimer: The COVID-19 pandemic is a situation that is evolving every day. The information here is based on the recommendations provided by the Centers for Disease Control and Prevention (CDC), Environmental Protection Agency (EPA), and American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE). Please refer to these agencies for the latest information.