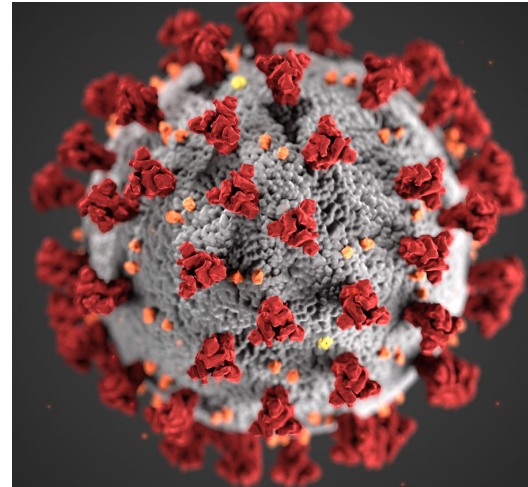


COVID-19 MEP Design Response

Mechanical & Electrical Solutions to Improve the Health & Safety of Your Building

West Plains Engineering is providing a holistic design response to COVID-19 and guiding clients through options to create the best working and living environments in their buildings. While many of these items were brought to the forefront by the pandemic, we've recommended and implemented them for years. Others are emerging technologies which we recently started applying and can not only impact the spread of COVID-19, but improve the indoor environment to decrease occurrences of the common colds and influenza as well.



Owner FAQs

Can I afford to make upgrades?

The costs for these upgrades and enhanced systems varies based on the system and the facility. We will work with Owners to identify an option that fits their budget and goals.

What risk do I run if I don't upgrade?

The benefits to building occupants will far outlast this current pandemic.

Will you give me options and cost estimates for each?

WPE can work with Owners to determine the best path forward based on their long-term goals, providing various options and opinions of cost for each.

Will HVAC improvements eliminate COVID-19 from my building?

No. While these enhancements will not completely remove COVID-19 or other viruses and bacteria, they can improve the air quality and overall indoor environment to provide for a healthier overall space.

For more detailed information on our specific design response to COVID-19, please contact our engineers in your local WPE office and schedule a meeting or webinar.

► Assessments

In existing facilities, conducting a conditions assessment can help determine what types of upgrades are able to be implemented within the current system(s) with minimal additional equipment. This, in turn, can reduce the cost.

► HVAC System Improvements

There are essentially three paths to bolstering the HVAC system – dilution, filtration, disinfection (eradication) or some combination of those.

• VENTILATION REVIEW

It's essential to assure appropriate ventilation rates are being achieved, and potentially increase those if the equipment will allow without sacrificing comfort. MERV 13 or greater filtration at the AHU level, coupled with proper total air changes within the space, are good first steps. Additionally, assure air flush mode is taking place, both pre and post occupancy.

• TEMPERATURE & HUMIDITY LEVELS

Review and determine the proper temperature and humidity levels in the space. Failure to do so could create an environment more susceptible to contaminant spread.

• CONTAMINANT DISINFECTION & AIR PURIFICATION EQUIPMENT

Use of Ultra-violet (UV-C), Photo Catalytic Oxidation (PCO) or Bipolar Ionization technologies can attack and remove contaminants. Not all are appropriate for all situations, but they should be explored with the Owner.

► Other Considerations

While the mechanical system can make the greatest impact on reducing spread through air flow, electrical and other design improvements certainly have a role to play through automation and surveillance.

• TOUCHLESS CONTROLS & SURFACE MATERIALS

Touchless controls, if not already present, can be installed in bathroom fixtures, light switches, door operators, etc. to reduce contact spread along with surface material selection.

• ATTENDANCE LOGGING

If exposure is suspected, attendance logs can be reviewed through card access and/or video systems.

• THERMOGRAPHIC SCREENING

Thermographic screening is a fairly new technology in the private sector, but it can be an effective first stage in identifying individuals who may pose a health concern based on body temperature readings.