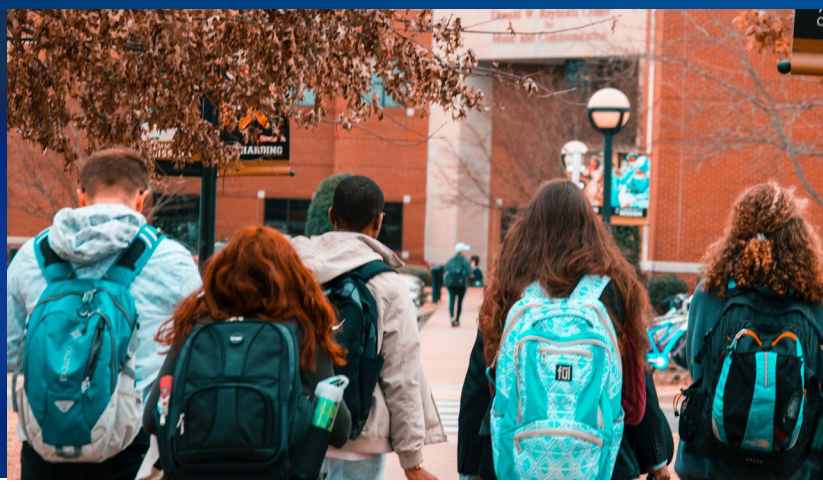
Johnson Controls is Powering the COVID-19 Crisis Response

Solutions and Capabilities for Higher Education

Johnson Controls is committed to serving the higher education community during the COVID-19 crisis. We have the global experience, national workforce and expertise to work with campuses during this difficult time to meet their immediate needs while helping streamline operations and use of resources for when students return to campus and classes.



We have proven to be a cornerstone of higher education infrastructure in North America:

- We have partnered with and served over 2,880 higher education campuses, providing customized upgrades and solutions to reduce costs and improve building efficiencies
- Through our partnerships with higher education customers, we've driven over $1 billion in guaranteed savings and have a $6 billion performance contracting portfolio
- We have 120 branch locations in North America supported by 25,000 employees
- Recognized by federal, state and local governments as a provider of essential products, services and personnel
- We are partners with a number of higher education associations, including APPA, NACUBO, NASEO, ACHA and NAICU.
- We work with a number of organizations, including the United States Army Corps of America, General Contractors, the Department of Health & Safety and offices of Emergency Reponses

Supporting campus needs during this crisis

As students have departed from campus and the semester progresses online, supporting, educating and engaging students remains the priority of higher education leaders. In some cases, medical centers and research laboratories affiliated with institutions are exempt from closing their doors. Campuses are being called upon to provide critical space, or Alternative Care Sites (ACS), to communities looking for the capacity to care for those impacted by the virus, utilizing multi-purpose rooms, auditoriums and other open spaces for temporary healthcare treatment structures.

To ensure campus facilities are properly maintained and best protected, they need to be able to protect against infection, regardless of when classes resume. These challenges include:

- Providing healthy, safe and secure spaces, especially those renovated to ACS
- Confronting uncertain funding challenges and budget concerns from the lack of revenue from housing and meal plans
- Tackling projects that are already funded while buildings are vacant
- Increasing security on buildings, especially those with research laboratories in operation
- Continuing regular testing and inspecting of fire equipment and building controls as required by code
- Addressing building inefficiencies to provide infrastructure support
- Enabling more remote services to provide distance monitoring and servicing of campuses

COVID-19 Higher Education Crisis Response

Utilizing campus spaces to power the COVID-19 response

The need for emergency care is critical, requiring adaptability and mobilization. Johnson Controls has and will continue to be at the forefront of transforming available campus spaces to ACS', and we continue to support conversion with speed to deliver a solution and mobilize, understanding of the project and alignment on the vision of all stakeholders.

- Long Island – We leveraged our Strategic Account, local relationships, experience with Wuhan, pre-engineered solution and local team to deliver a 1,000+ bed expansion. Utilizing pre-purchased materials and local labor force, the conversion completed in 10 days and deployed cameras, wireless communication and nurse call, fire alarms, real-time locating systems (RTLS) and more.
- Detroit – Within a week's time, we addressed the critical need to convert the Detroit TCF Center into a 1,000-bed facility. The nature of this emergency response required us to implement systems and solutions "on the fly" to meet the deadline requirements. In addition to installation, we will provide the necessary maintenance to ensure all systems meet federal, state and local requirements to support effective patient care. Systems deployed include nurse call, life-safety, building automation, HVAC and more.

Johnson Controls can quickly mobilize technical resources – including planning and design engineers, project managers, installers, communication specialists, service technicians and more – to help higher education institutions meet their needs and stay ahead of the crisis.

Backed by our global Centers of Excellence, we can immediately bring world-class expertise to your campus facilities.

Financing options available through Johnson Controls can help you preserve valuable cash and improve the safety of your facility.

Our higher education experts will listen to your needs and quickly respond with solutions, services, and expertise to ensure short- and long-term benefits for staff and students. Contact us today.

COVID-19 Higher Education Crisis Response

Some of the ways Johnson Controls can support your campus needs:

Introduce alternative methods to traditional debt financing

- Alternative delivery mechanisms to streamline the execution of necessary maintenance
- Tracking stimulus funding and grant availability such as the CARES Act and from federal agencies like FEMA
- Cooperative programs to provide additional financial assistance from stimulus funding
- Access to financing and procurement options for campus infrastructure support
  - Infrastructure-as-a-Service (IaaS) to work with Johnson Controls and a funding partner that contracts the equipment, allowing customers to purchase the equipment or renew the contract with no obligation of ownership
  - A Contingent Payment Program to partner with Johnson Controls and compensate the upgrades based on generated savings, once maintenance and upgrades are installed

Enhance communication technologies and maximize security for critical staff, assets and facilities

- Integrated systems to increase protection in areas of campus most vulnerable
  - Academic buildings – ensure security during campus inoccupancy
  - Campus medical facilities – maximize safety and health of patients and staff
  - Campus research centers – enhance the protection of assets and occupants requiring access to these critical and sensitive environments
- Ensuring all fire equipment is operationally healthy
- Rapid installation of access control and video surveillance to enable remote monitoring with the cloud for temporary or repurposed sites
  - Enables Johnson Controls to diagnose and resolve system issues quickly over the phone, avoiding the inconvenience of scheduling and dispatching a service technician onsite
  - Visitor management integration

Provide operations & maintenance of academic, medical and research facilities

- Adhering and managing new on-site contracting protocols and safety measures prescribed by the National Incident Management System (NIMS), CDC and OSHA to implement decisions and strategies quickly
- Providing ongoing fire and life-safety testing and inspections as required by NFPA and clarified under COVID-19 circumstances
- Address building inefficiencies and opportunities to provide infrastructure support
- On-time delivery and integration of the priority systems
- Short- and long-term facility operations and maintenance support to augment existing staff, including HVAC mechanics, building automation technicians and refrigeration mechanics
- Verification of system performance to provide proper airflow, temperature and humidity
- Air distribution equipment refurbishment and cleaning

Maximize uptime of critical systems

- Review and update controls sequences and optimize based on increased occupancy/production of new activities
- Comprehensive cloud-based facility monitoring, energy and asset performance
- Service and support to ensure critical infrastructure equipment and systems are operating as designed
- Remote monitoring of systems allows for more efficient operations at a time when preserving resources is critical
  - Smart Connected Chillers provides remote visibility to chiller warnings and alarms and for remote diagnostics and troubleshooting
  - Remote monitoring and/or operations through the Remote Operations (ROC) especially around critical environments or parameters
  - Metasys® monitoring to allow a ROC operator to monitor for customer's building automation systems and alarms
  - Lights out operations to give a ROC operator with HVAC skills the ability to fully operate the HVAC system