

# Reopening & Reimagining Educational Facilities Amid COVID-19

 **BUILDINGS**  
interiors+sources®  

---

**eHandbook**

# CONTENTS

**CLICK ON TITLE TO GO TO PAGE**

Introduction ..... 5

## **PART 1: GUIDELINES FOR REOPENING SCHOOLS SAFELY**

Interim Guidance for Administrators of US K-12 Schools  
and Childcare Programs (CDC) ..... 7

Framework for Reopening Schools (UNICEF)..... 10

Safely Back to School After Coronavirus Closures  
(McKinsey & Co.)..... 13

Return to School: Planning with Empathy and Agility (Corgan) ..... 16

Return to Learning: Preparing for Students and Faculty  
(National Office Furniture)..... 20

What Steps Can You Take Before School's Back in Session? (Zurn).... 23

Restroom Recommendations as Schools Plan for Reopening  
(Bradley Corp.)..... 26

Big Impact, Small Investment: Ways to Promote Safe  
Physical Distancing (Safe Distance Flooring) ..... 29

**CONTENTS continued >**

**CLICK ON TITLE TO GO TO PAGE**

## **PART 2: CLEANING PROTOCOLS**

Guidance for Cleaning and Disinfecting Public Spaces, Workplaces, Businesses, Schools and Homes (CDC).....	32
COVID-19 Resources for Custodians and Others: Cleaning Tips (American Federation of Teachers).....	34
The Proper Cleaning and Disinfection of Formica Products (Formica).....	37

## **PART 3: RE-IMAGINING THE CLASSROOM**

Learn Together: A Return to Schoolbook (Shaw Contract).....	41
Roadmap to the Resilient Campus (SmithGroup) .....	44
Silver Linings – Lessons to Carry into the Future of Education (Corgan) .....	47
Back to School: What K-12 Architects Can Learn from Hospitals in the Wake of COVID-19 (Perkins and Will) .....	50
Designing Post-COVID Learning Spaces (Steelcase).....	53
Returning to School: Ideas, Options and Solutions (KI) .....	56
Flexible Space Management (Hufcor).....	59

**CONTENTS continued >**

CLICK ON TITLE TO GO TO PAGE

## **PART 4: WHITE PAPERS AND RESOURCES**

Safe Return to Campus: How Penn State Leveraged Facility  
Technology to Navigate Capacity Reductions (Cartegraph)..... 64

Strategies for Student Engagement During and  
After COVID-19 (Haskell Education) ..... 67

Healthy and Trustworthy Educational Institutions  
(Distech Controls) ..... 70

Acoustical Felt and Our New World (Frasch) ..... 73

**PART 5: PRODUCTS THAT HELP**..... 75

# Reopening & Reimagining Schools Amid COVID-19

At the time of publication of this eHandbook, the U.S. is seeing a second wave of the coronavirus pandemic that shut down the global economy earlier this spring. Questions and concerns are being raised daily as to whether schools are prepared to open and receive students full time as we enter a new school year—and more importantly, if they even should reopen.

Many school districts have deemed the situation too dangerous to reopen safely and are planning to start the year with virtual classroom instruction. Others are taking a phased approach to opening, allowing only sophomores and juniors onto campus to reduce the number of students in the classroom and in common areas to help contain the spread of infection, for example. Additionally, some private schools are offering parents the option, of sending their children to school, keeping them at home and streaming live classes online, or a combination of both.

We'll leave the decision as to when K-12 schools, colleges and universities should open their doors again to local school districts and campus officials. But in the meantime, we've put together this eHandbook to help school administrators as they prepare to reopen their educational facilities safely, whenever that may be. We've compiled the latest information from trusted sources such as the Centers for Disease Control (CDC), the United Nations Children's Fund (UNICEF), as well as some of the most respected design firms including Perkins and Will, SmithGroup and Corgan, and major industry suppliers, to offer not only guidelines on how to reopen safely, but also strategies for rethinking the way classrooms might be designed in the future.

This is by no means an exhaustive list of resources, and some of the guidelines may change as more information becomes available. As a digital resource book, we will update this ehandbook periodically, but in the meantime, we believe it will offer a wealth of information to school administrators on the most important issues they should be considering during this critical time.

Whatever approach your school or university takes to bring students back, we wish you good health and good luck in the transition back to the classroom.



**Robert Nieminen**  
Chief Content Director



**Janelle Penny**  
Editor in Chief

**CLICK ON TITLE TO GO TO PAGE**

# **PART 1**

## **GUIDELINES FOR REOPENING SCHOOLS SAFELY**

Interim Guidance for Administrators of U.S. K-12 Schools and Childcare Programs (CDC) .....	7
Framework for Reopening Schools (UNICEF).....	10
Safely Back to School After Coronavirus Closures (McKinsey & Co.).....	13
Return to School: Planning with Empathy and Agility (Corgan) .....	16
Return to Learning: Preparing for Students & Faculty (National).....	20
What Steps Can You Take Before School Is Back in Session? (Zurn) .....	23
Restroom Recommendations as Schools Plan for Reopening (Bradley Corp.).....	26
Big Impact, Small Investment: Ways to Promote Safe Physical Distancing (Safe Distance Flooring) .....	29

# Interim Guidance for Administrators of U.S. K-12 Schools and Child Care Programs

The U.S. Centers for Disease Control and Prevention (CDC) will update this guidance as needed and as additional information becomes available. Please check the following CDC website periodically for updated interim guidance: <https://www.cdc.gov/coronavirus/2019-ncov/index.html>.

Health officials are currently taking steps to prevent the introduction and spread of COVID-19 into U.S. communities. Schools play an important role in this effort. Through collaboration and coordination with local health departments, schools should take steps to disseminate information about the disease and its potential transmission within their school community. Schools should prepare to take steps to prevent the spread of COVID-19 among their students and staff should local health officials identify such a need.

Schools should continue to collaborate, share information, and review plans with local health officials to help protect the whole school community, including those with special health needs. School plans should be designed to complement other community mitigation strategies to protect high risk populations and the healthcare system, and minimize disruption to teaching and learning and protect students and staff from social stigma and discrimination. Plans should build on everyday practices (e.g., encouraging hand hygiene, monitoring absenteeism, communicating routinely) that include strategies for *before*, *during*, and *after* a possible outbreak.

### WHO IS THIS GUIDANCE FOR?

This interim guidance is intended for administrators of public and private child care programs and K-12 schools. Administrators are individuals who oversee the daily operations of child care programs and K-12 schools, and may include positions like child care program directors, school district superintendents, principals, and assistant principals.

This guidance is intended for administrators at both the school/facility and district level.

### WHY IS THIS GUIDANCE BEING ISSUED?

This guidance will help child care programs, schools, and their partners understand how to help prevent the transmission of COVID-19 within child care and school communities and facilities. It also aims to help child care programs, schools, and partners react quickly should a case be identified. The guidance includes considerations to help administrators plan for the continuity of teaching and learning if there is community spread of COVID-19.

### WHAT IS THE ROLE OF SCHOOLS IN RESPONDING TO COVID-19?

Schools, working together with local health departments, have an important role in slowing the spread of diseases to help ensure students have safe and healthy learning environments. Schools serve students, staff, and visitors from throughout the community. All of these people may have close contact in the school setting, often sharing spaces, equipment, and supplies.

Information about [COVID-19 in children](#) is somewhat limited, but the information that is available suggests that children with confirmed COVID-19 generally had mild symptoms. However, a small percentage of children have been reported to have more severe illness. People who have serious chronic medical conditions are believed to be at higher risk. Despite lower risk of serious illness among most children, children with COVID-19-like symptoms should avoid contact with others who might be at higher risk, such as [older adults and adults with serious chronic medical conditions](#).



# School Decision Tree

## All Schools Regardless of Community Spread



## No Community Spread



## Minimal to Moderate OR Substantial Community Spread



[CLICK HERE FOR FULL REPORT](#)



# Framework for Reopening Schools

Global school closures in response to the COVID-19 pandemic present an unprecedented risk to children’s education, protection and wellbeing. The United Nations Secretary-General António Guterres recently called on governments and donors to prioritize education for all children, including the most marginalized, and the Global Education Coalition was established to support governments in strengthening distance learning and facilitating the reopening of schools.

While we do not yet have enough evidence to measure the effect of school closures on the risk of disease transmission, the adverse effects of school closures on children’s safety, wellbeing and learning are well documented. Interrupting education services also has serious, long-term consequences for economies and societies such as increased inequality, poorer health outcomes, and reduced social cohesion. In many countries, data on virus prevalence is incomplete and decision makers will need to make their best assessments in a context of incomplete information and uncertainty. National governments and partners must simultaneously work to promote and safeguard every child’s right to education, health and safety, as set out in the Convention on the Rights of the Child. The best interest of the child must be paramount. Across countries leaders are grappling with difficult and uncertain trade-offs as they consider easing lockdowns. This framework serves to inform the decision-making process on when to reopen schools, support national preparations and guide the implementation process, as part of the overall public health and education planning processes. Contextualization and

continuous adaptation are necessary in order to respond to local conditions and meet each child's learning, health and safety needs.

### WHY REOPEN SCHOOLS?

Disruptions to instructional time in the classroom can have a severe impact on a child's ability to learn. The longer marginalized children are out of school, the less likely they are to return. Children from the poorest households are already almost five times more likely to be out of primary school than those from the richest. Being out of school also increases the risk of teenage pregnancy, sexual exploitation, child marriage, violence and other threats. Further, prolonged closures disrupt essential school-based services such as immunization, school feeding, and mental health and psychosocial support, and can cause stress and anxiety due to the loss of peer interaction and disrupted routines. These negative impacts will be significantly higher for marginalized children, such as those living in countries affected by conflict and other protracted crises, migrants, refugees and the forcibly displaced, minorities, children living with disabilities, and children in institutions. School reopenings must be safe and consistent with each country's overall COVID-19 health response, with all reasonable measures taken to protect students, staff, teachers and their families.

### WHEN, WHERE AND WHICH SCHOOLS TO REOPEN?

The timing of school reopenings should be guided by the best interest of the child and overall public health considerations, based on an assessment of the associated benefits and risks and informed by cross-sectoral and context-specific evidence, including education, public health and socio-economic factors. This analysis will also help to prioritize risk mitigation measures. Decision-making should be done together with subnational stakeholders so that actions are based on an analysis of each local context.

Decisions on reopening will require countries to quickly gather critical information on how schools, teachers, students and communities are coping with closures and the pandemic. Rapid response surveys of school and local leaders, teachers, students and parents can help provide this information. Decision makers must then assess **how learning and wellbeing can best be supported in each context**, with special consideration of the benefits of classroom-based instruction vis-à-vis remote learning, against **risk factors related to reopening of schools**, noting the inconclusive evidence around the infection risks related to school attendance.

- How essential is classroom instruction to achieve the respective learning outcomes (foundational, transferable, digital, job-specific), recognizing issues such as the importance of direct interaction with teachers for play-based learning with younger children and developing foundational skills?
- How available and accessible is high-quality remote learning (for respective learning outcomes, age groups and for marginalized groups)?
- How long can the current remote learning approach be sustained, including learning achievements, and social-emotional wellbeing, given domestic pressure on caregivers and other context-specific factors?
- Do caregivers have the necessary tools to protect children from online harassment and online gender-based violence, while they are learning through online platforms?
- How are the 'high stakes' key transition points on the learning journey (readiness for school; primary completion and transition; secondary completion and transition to tertiary) affected by the pandemic and responses to it?
- How ready and able are teachers and educational authorities to adapt to different administrative and learning approaches? Are they able and ready to implement infection prevention and control measures?
- Are there protection-related risks related to children not attending school, such as increased risk of domestic violence, child labour, or sexual exploitation against girls and boys?
- Do school closures compromise other support services provided by schools, such as school health and nutrition activities?
- What are the social, economic and well-being related implications of children not attending school?
- What is the capacity of the school to maintain safe school operations to mitigate risks, such as social distancing (i.e. size of classroom compared to number of students); and water, sanitation and hygiene facilities and practices?
- What is the level of exposure between the school population and higher-risk groups, such as the elderly and those with underlying medical conditions? If exposure is high, can sufficient mitigation efforts be taken?
- How does the school population travel to and from school?
- What are the community-related risk factors considering epidemiological factors, public health and healthcare capacities, population density and adherence to social distancing and good hygiene practices?

Analyzing the context-specific benefits and risks enables prioritization of schools (or components of schools) for reopening; prioritization of risk mitigation measures within schools and communities; and areas of focus for remote learning.

[CLICK HERE FOR FULL REPORT](#)

# Safely Back to School After Coronavirus Closures

As they consider the path to reopening schools, systems can consider three questions: when to reopen, for whom, and with what health and safety precautions in place.

*By Jake Bryant, Emma Dorn, Stephen Hall, and Frédéric Panier*



© SDI Productions/Getty Images

Countries around the world remain at very different points of the COVID-19 pandemic, which means they face varying challenges, from overwhelmed healthcare systems to growing economic despair. In geographies beginning to emerge from the first wave of COVID-19 cases, the question of reopening schools is front of mind for many stakeholders. Schools provide not just learning and social support for students but also, crucially, childcare, without which many parents cannot return to work. However, reopening schools carries the public health risk of viral resurgence. Parents and teachers are understandably wary. How can education systems respond?

System leaders around the world—at the federal, state, and district levels—are grappling with three important questions related to getting students safely back into the classroom:

- When should schools reopen?
- For which segments of students and teachers (if not everyone) should schools reopen?
- What health and safety measures should schools adopt on reopening?

There isn't one right set of answers to these questions. Infection rates fluctuate across communities, as does capacity of healthcare systems; education systems vary in both structure and performance; and different communities have distinct cultural values that inform decision making. Significantly, leaders will be making decisions based on limited and rapidly changing epidemiological evidence and will therefore be forced to make difficult trade-offs to reopen schools. Once schools are deemed safe for in-person instruction, addressing re-enrollment, academic remediation, and possible viral resurgence will require new capabilities (see sidebar, "Postpandemic capabilities for school systems").

## WHEN TO REOPEN

Although most primary and secondary schools worldwide remain closed, some countries (most notably Sweden) have stayed open as of publication. Others, including China, Denmark, Japan, and Norway, recently reopened their schools, and many European countries have announced plans to reopen in the coming weeks or months. In the United States, 43 states and Washington, DC, have ordered or recommended keeping in-person schooling closed for the rest of the academic year.<sup>1</sup>

As school-system leaders weigh possible timelines, they can consider four interlocking components of reopening: risks to public health, schools' importance to economic activity, impacts on students' learning and thriving, and safeguarding

readiness. Risks to public health The most critical question is whether reopening schools will lead to a resurgence of infection among students, staff, and the broader community. The evidence here is still nascent. Children’s risk of contracting COVID-19 appears to be lower than that of adults. In China and the United States, the countries with the largest number of confirmed COVID-19 cases, children represent 2 percent of cases.<sup>2</sup> Emerging evidence also suggests that children are more likely to be asymptomatic, less likely to be hospitalized, and much less likely to die if they do develop COVID-19.<sup>3</sup> Although the risk to students themselves appears relatively low, reopening schools will also expose teachers to risk—especially those who are older or immune-compromised—and might contribute to higher risk for the larger community. Children’s role in transmitting the novel coronavirus is still unclear, making it difficult to estimate the extent to which reopening schools might contribute to resurgence. Potentially relaxed confinement measures outside the education sector add to the uncertainty.

## Post-pandemic capabilities for school systems

**Besides safely reopening schools,** education systems will have a daunting task in reenrolling students, helping students recover lost learning, and preparing for viral resurgence. New partnerships may help build capabilities for these tasks.

— **Reenrollment.** As schools reopen, some students may not return to class, for instance, because of parental concern about ongoing health risks, student leakage to the workforce to support financially struggling families, or student disengagement after frustrating remote learning experiences. Previous crises suggest that girls in developing countries are especially at risk of not returning to school.

— **Remediation.** Students who do return to school may need significant work to catch up on academics, especially in school systems that struggled to roll out effective remote learning.

Students who lacked devices, internet access, or parental support— or who were already behind when the crisis began— will likely need the most help.

— **Resurgence.** Systems must also plan for local or national viral resurgence. Preparing means being ready for multiple waves of closures and reopening, which will entail blending remote and in-person learning. These tasks will require resources and capabilities that many systems lack. Maintaining a crisis nerve center through the process and beyond can enable a coordinated response through strong leadership, effective operations, and systems for ongoing data-processing and monitoring.<sup>1</sup> New forms of collaboration and communication may also be needed with other government agencies, with nongovernmental organizations, and— importantly— with parents.

<sup>1</sup> Adi Kumar, Leah Pollack, Navjot Singh, and Catharina Wrede Braden, “Crisis nerve centers: Supporting governments’ responses to coronavirus,” March 2020, McKinsey.com.

# Return to School: Planning with Empathy and Agility

By Jason Mellard, AIA, LEED AP, Angie Stutsman, RID, WELL AP, and Chloe Hosid



Schools are rich environments for study, collaboration, identity formation, and social and emotional development. They are second homes, social hubs, community centers, and, most of all, epicenters for learning. Since the global COVID-19 pandemic, schools have closed abruptly, forcing students and educators to quickly adapt to a remote learning model. As attention turns to this upcoming school year, there are many

questions on how schools will reopen. How can schools maintain or even enhance learning and connections on campus in unique ways while adhering to guidelines for social distancing?

We know that there is no one ‘right’ answer to this unique situation, but if we can meet the challenges of this time with creativity and empathy, it is possible to make the most out of social distancing measures. Architects from Corgan’s education studio have researched efficient ways to support student growth and academic progress and provide new outlets for maintaining social connections and camaraderie in the upcoming school year.

## SCHOOLS WITHIN A SCHOOL: BUILDING COMMUNITIES

Our schools are places for students to grow — to interact broadly with their peers and their teachers and to explore themselves and the world around them. Per the CDC guidelines, schools should “ensure that student and staff groupings are as static as possible by having the same group of children stay with the same staff (all day for young children, and as much as possible for older children)” (CDC, 2020). Facilitating a school within a school model could abide by the



guidelines while also providing more significant interactions between a smaller group of students.



For elementary schools, this aligns closely with their existing model. Groups of students stay together with their teacher in one classroom for most of the day — effectively minimizing the number of people each student and teacher encounter during their day. For secondary schools, students on similar academic tracks could be clustered together as a cohort in a controlled area of the school building to reduce

the size of each student’s network of contact while still providing connectivity within the broader school environment.

By utilizing existing building features, such as corridors, floor levels, and classroom wings, as natural dividing lines to clearly define zones, schools can be subdivided into controlled learning neighborhoods. Keying these zones with unique colors, student artwork, or signage could give a vibrant identity to each of these spaces and bring a feeling of home to the school building. Teachers can rotate between classrooms within the learning neighborhood to further limit student movement.

Common spaces where students can gather to socialize, collaborate, and decompress are integral parts of our schools. Expanding the number and types of areas that can be utilized for necessary functions like serving meals can alleviate the strain of density and disperse students to new, more casual settings throughout the campus, including the outdoors. Staggering passing periods in combination with a clear directional flow in corridors allows students to maintain a safe distance. Allocating assigned exterior entry and exit doors to each learning neighborhood can reduce crowding and facilitate secure travel paths to parent and bus pick-up and drop-off areas.

## **BLENDED LEARNING**

While there could be changes to educational environments as we know it, the transition to learning in smaller groups with a blended learning model could prove beneficial. There is an opportunity to emphasize more active, student-led learning methods to recognize and anticipate the needs of each student by building flexibility into lesson plans and activities, allowing each student to take control of their learning (Posey, 2020). Bringing students into the conversation of how this model could be implemented in the upcoming school year may yield valuable insights, teach creativity

and flexibility, and give them ownership in this unique period in their educational journey.

With social distancing requirements in place, there will be fewer students in a classroom to each teacher, creating an environment that most students have not experienced before. This small-group atmosphere can invite more in-depth discussions and a more significant opportunity for each student to showcase their work. With smaller groups, there will be more room for learning tools, like mobile markerboards and flexible furnishings, that allow students and teachers to move around, rearrange their space, and support more opportunities for active learning while respecting distancing guidelines. Peer-to-peer experiences offer opportunities for hands-on activities, sharing ideas, and building connections (Study.com). Learning is not a purely cerebral process, but one that engages the body. It is best supported by well-curated tools and technologies that enhance the learning environment. Allowing students to move and actively experiment within the physical, digital, natural, and social world reinforces learning with meaningful and memorable experiences.



Blending hands-on learning with virtual education provides unique learning opportunities as well. Makerspace projects designed and mocked-up at home after a period of the independent investigation could be entirely crafted and tested at school. Virtual experience-based learning can be provided through gamification of educational content and virtual field trips (Steamcraft EDU, 2019). Remote laboratories have been developed to give students control via the internet of scientific equipment across the globe to collect physical data for analysis and manipulation and provide opportunities for collaboration with students in other parts of the world (Roschelle, J., 2017).

Home learning environments will continue to be an essential part of students' education. Providing students and parents with guidelines and targeted solutions for developing successful at-home learning environments can help to extend the benefits of a well-designed classroom into every space where learning needs to take place. You can reference Corgan's ["Designing Learning Spaces at Home"](#) guidebook for practical tools in crafting engaging at-home learning environments.

[CLICK HERE FOR FULL REPORT](#)

NATIONAL<sup>®</sup>



**ESSAY<sup>®</sup> STUDENT CHAIR**  
**MANEUVER<sup>®</sup> FACILITATOR DESK**  
**MIX-IT<sup>®</sup> TASK SEATING**

PHONE 800.482.1717  
WEB NATIONALOFFICEFURNITURE.COM

In conjunction with **National Office Furniture**

# Return to Learning: Preparing for Students and Faculty

## CRITICAL AREAS OF FOCUS

Creating institutions of learning which offer comfort and wellbeing to students, faculty, administrators, communities, and society at large takes thoughtfulness and preparation across all aspects of the school or university. Consider people, place, and process to deliver the best outcome.



**People.** Students and instructors are the linchpin and foundation of every learning institution. Districts and campuses which put people's health, safety, and overall needs front and center will emerge faster, stronger, and more resilient.



**Place.** When administrators, faculty, students, parents, and others re-enter schools and universities, they will undoubtedly expect it to have changed to ensure heightened safety. However, they will also desire for it to remain a place of community, inspiration, and shared purpose.



**Process.** Institutions which engage with their stakeholders to plan the future are best positioned to clearly articulate the new roadmap of streamlined internal processes and procedures. This engagement can deliver an experience where learners can thrive, and staff can do their jobs with confidence and excellence.

## A CHECKLIST FOR HEALTHIER LEARNING ENVIRONMENTS

### PEOPLE

- ✓ Develop a plan for helping students cope emotionally as well as physically
- ✓ Openly discuss mental health and offer strategies for managing anxiety and stress
- ✓ Establish Meditation or Reflection spaces for students or staff to visit when feeling overwhelmed
- ✓ Require temperature checks upon entering the building
- ✓ Use of masks by students and staff when outside of primary classroom
- ✓ Make options available to high risk students and faculty such as remote learning/instructing
- ✓ Recognize that many students will need substantial review or remediation before being able to move forward with learning new content and plan for it

- ✓ Reduce financial concerns by allowing students to defer tuition payments for 1-2 years for higher education and private schools

## **PLACE**

- ✓ Arrange rooms to allow 6' physical distancing
- ✓ Utilize non-traditional spaces such as corridors, libraries, or gymnasiums for additional classroom space
- ✓ Re-work paths of travel for students and staff to minimize the number of people that may come into contact or cross in a transition period
- ✓ Provide visual aids for distancing such as placing tape on the floor or removing chairs
- ✓ Provide deep cleaning of spaces before re-opening. Once open, thoroughly clean each night, and disinfect high contact surfaces twice a day
- ✓ Consider using screens, mobile furniture, study carrels, or other solutions to support flexibility and distancing
- ✓ Ensure all indoor spaces are well ventilated; consider a high performance air filtration system
- ✓ Install a Hygiene Station inside each room to provide access to hand sanitizer, tissues, trash, etc.
- ✓ Hold classes outdoors when possible; use the entire campus to support academic practices and activities
- ✓ Establish multiple Health Clinics/Nurse's Offices to maintain distancing and establish space for temporary quarantine areas
- ✓ Use water bottle re-fill stations vs. drinking fountains
- ✓ Install touchless restroom fixtures
- ✓ Provide Personal Protection Equipment for students and staff

## **PROCESS**

- ✓ Develop or update Contingency Plan for possible future issues; conduct an evaluation of processes and communication during the recent pandemic
- ✓ Stagger daily and/or weekly schedules for classes and activities (re-work pick-up and drop-off sites for schools)

[CLICK HERE FOR FULL REPORT](#)



# PROTECT WHAT MATTERS MOST WITH **TOUCHLESS SOLUTIONS**

Zurn aspires to provide the safest and most efficient water solutions to protect human health and the environment. All of us can properly wash and dry our hands to help safeguard our health and each other.

But decision makers can do more for their users—and that starts with hands-off features and smarter technologies. Find hygienic plumbing solutions to protect what matters most.

## Featured Products:



**ZERK-CPM**  
Retrofit Flush Valve



**Z6950-XL**  
Sensor Faucet and Soap Dispenser



**ZER6000**  
Sensor Flush Valve



**VERDEdri**  
World Dryer Hand Dryers

Learn more at [zurn.com/hygienic-solutions](https://zurn.com/hygienic-solutions)



In conjunction with **ZURN**



# What Steps Can You Take Before School Is Back in Session?

*Come fall, every district will return to school in a way that makes sense for their community. Some will commence virtually, others fully, some plan to rotate days and students, and a number are looking into ways to move the classroom outdoors. In addition to following CDC guidelines, expert recommendations and state protocols, schools can do more to enhance hygiene with touchless fixtures and smart technologies.*

We know the best way to stop germs is to start with handwashing best practices. In schools, students and faculty wash their hands in restrooms, kitchens, laboratories and break rooms after touching surfaces, food, specimens, handles and...you get the idea. Touchless devices, including soap dispensers, faucets, and flush valves, allow users to go through the motions without being hands on. Smart technologies take hygiene a step further with data and analytics. Here are recommendations based on your education stage and goals.

## **K-12: SOLUTIONS FOR EVERY SCHOOL AND GOAL**

No doubt, you are in the process or have already established steps and solutions for physically reopening based on your individual environment and community feedback. Both touchless solutions and connected technologies can be part of the equation for a safer, hygienic return to in-person learning.

These are bundle recommendations for K-12 schools:

- **Retrofit** – Short on time and budget? This option allows schools to upgrade to touchless fixtures quickly. A retrofit bundle provides an immediate elevation in hygienic standards but does so in less steps. Retrofit bundles typically include sensor-enabled faucets, flush valves and hand dryers that save space and dry hands quickly and completely.
- **Performance** – This option works if you're looking to save costs through efficiency and low maintenance, on top of improving sanitation for in-person learning. The installation is still fairly simple but requires a few extra measures. The payoff follows through in performance, elevated hygiene, energy efficiency and aesthetics. Performance bundles typically include sensor faucets and soap dispensers, sensor flush valves, and high-speed, surface-mounted hand dryers with HEPA filtration and antimicrobial technologies.

In conjunction with **Zurn**

- **Next generation** – The final bundle appeals to schools with a strong desire to operate effectively around data. Next generation bundles connect schools to IoT plumbing products and smart capabilities. These bundles include both connected faucets and flush valves with touchless operation and handwashing scores. The plumbing product data reveals actionable insights into peak hours and usage trends. That way, maintenance can ensure improved uptime, water efficiency and social distancing. Handwashing scores promote hand hygiene by recording flush-wash ratios, frequency and duration in real time. This data allows for better decision making and the best-scenario user experience.

### COLLEGES AND UNIVERSITIES: NEXT LEVEL OF EDUCATION AND SANITATION

Universities and colleges also continue to problem solve and find ways to open up responsibly, beyond the laptop. All of the bundles listed above for K-12 can support these efforts. However, it's important to consider the greater number of individuals campuses experience in classrooms, at gatherings and simply walking around from hall to hall. This demand can put more strain on the infrastructure itself and maintenance professionals.

Here's how you can match the next generation bundle with the next level of education's needs.

#### SMARTER CLEANING

Today, routine sanitation encourages a safer and smarter environment. Still, staff tend to work around traffic flow. If there are too many users, maintenance and cleaning staff may reduce the time and attention spent to monitor, clean and disinfect effectively. Connected plumbing products help facility managers and their team pinpoint which stalls need the most attention based on alerts, usage trends and when is the ideal window to minimize disruption. A clean, well-working restroom typically translates into healthier students and staff.

#### VIRTUAL ROOM INSPECTION

This is truly the restroom of the future for all operations, even beyond education. After all, if your restroom isn't continuously learning is it truly smart enough for you and your users? With Virtual Room Inspection, universities and colleges can experience complete connected capabilities and actionable insights. These proprietary built-in technologies work together to detect and analyze Key Performance Indicators. Staff get real-time alerts when outliers come to light, based on the continuous learning.

[LEARN ABOUT ZURN'S CONNECTED AND TOUCHLESS HYGIENIC SOLUTIONS](#)





GLX SERIES



TLX SERIES



ELX SERIES

## HANDWASHING POWERHOUSE

Create a hygienic, touchfree handwashing experience anywhere in your facility with Bradley's new suite of Express® Lavatory Decks.

Seamless construction and repairable solid surface material make Express Lavs the perfect upgrade to china sinks and fabricated countertops.

**Watch the Express video at [bradleycorp.com/express](http://bradleycorp.com/express)**



Economical



Repairable



Seamless



Easy to clean



Easy to install



Commercial Washrooms. Brought to Life.

In conjunction with **Bradley Corp.**

# Restroom Recommendations as Schools Plan for Reopening

By Jon Dommissie

As schools make plans for students to return, high-use, shared facilities, such as restrooms, are a significant point of consideration.

**How do you create a hygienic and safe environment that can handle what's sure to be increased hand washing activity by students, faculty, administration and staff?**

There are a number of actions and enhanced protocols that can be implemented.

## POST SIGNAGE OUTSIDE AND INSIDE RESTROOMS

Reinforce cleanliness with reminders about washing hands for 20 seconds per [Centers for Disease Control \(CDC\) guidelines](#), maintaining safe distances, throwing away paper towels, etc. [Bradley's Healthy Hand Washing Survey of high school students](#) found that [signage](#) is effective since 57% of students say they increase their hand washing when signs are posted.

Schools can also deliver reminders during daily announcements, through video and email messages, on [web sites and social media](#) and at the beginning and end of each class about the importance of increased hand washing and other ways to reduce COVID-19.

Experts such as CDC believe that thorough hand washing with soap and water for at least 20 seconds, and drying them thoroughly with a hand dryer or paper towel, is the best way to reduce the spread of disease-causing microorganisms like coronavirus. Proper hand washing will help reduce the spread of COVID-19 as well as flu and other illnesses in the home and workplace.

## ADD FLOOR SIGNAGE

Floor markings that designate six feet can be used to distance those waiting to use a restroom, sink or dry their hands.

## INSTALL TOUCHLESS FIXTURES

Cross contamination of germs in restrooms can be reduced with touch-free fixtures for every-thing from soap, faucets, hand dryers/towels, doors and flushers. Today's touchless hand washing models incorporate advanced sensing technology for continuous and reliable washing.

One of Bradley's newest hand washing fixtures – the [all-in-one touchless WashBar](#) – is designed with completely touchless soap, faucet and dryer, and minimizes germ touchpoints in restrooms. The integrated design of the fixture also helps contain water inside the basin and off the floors for a dryer, cleaner and safer washroom experience.

In conjunction with **Bradley Corp.**

Research has found that Americans are overwhelmingly in favor of using touch-free fixtures in restrooms. When asked, 91% believe it's important that restrooms are equipped with touchless fixtures. Automatic door openers also prevent hand-surface contact and support the [Americans with Disabilities Act \(ADA\)](#).

In fact, guidelines like the ones issued by the [Wisconsin Department of Public Instruction](#) recommend the installation of all touch-free fixtures for infection control. "Under any circumstance, touchless fixtures help to inhibit the spread of germs in restrooms and buildings," said medical microbiologist and professor of biology at [Saint Joseph's University](#) Michael P. McCann, Ph.D. "The more we avoid restroom touchpoints, the healthier and easier our operations will be. Hands-free washrooms are a win-win."

### INCREASE CLEANING, SANITIZATION AND RESTOCKING

Proper and frequent cleaning and disinfection is key for restrooms, especially for high-touch surfaces, such as doorknobs, faucets, sinks, toilets, stall door openers and paper towel dispensers. [According to the CDC](#), daily cleaning with soap and water reduces germs, dirt and impurities on the surface, and should be done frequently, especially if there is high traffic.

- **Use Non-Porous Sink Materials** – For sinks, using smooth and nonporous materials with seamless construction like solid surface and natural quartz helps prevent bacteria, mold and delamination accumulation, and are very easy to clean. For multi-user restrooms, new washbasin designs with increased space between the hand washing areas allow for social distancing while washing hands.
- **Consider Antimicrobial Finishes and Materials** – Some high-touch restroom surfaces like grab bars are available with antimicrobial coatings. Some facility managers and building owners are requesting this option as an enhanced safety precaution for their customers. Another consideration is using copper, which is a natural antimicrobial.

### PROVIDE TRASH CANS AND HAND SANITIZER NEAR EXITS

Research shows that 65% of Americans use paper toweling to avoid contact with restroom doors and faucets. Positioning paper towels and waste containers near doorways allows students to easily throw them away upon exiting.

Installing or placing free-standing hand sanitizer stations outside restrooms, lunchrooms and other common areas is another way students and staff can sanitize their hands upon entering and leaving the restroom. The CDC recommends that hand sanitizer contain at least 60% alcohol.

### CREATE ONE-WAY ENTRY AND EXIT TRAFFIC

Some restroom facilities that already have two entrances can shift to a dedicated entrance and exit. Signs that clearly designate an entry door and exit door, along with directional floor arrows, can help reduce close proximity situations, encourage social distancing and keep students flowing through the restroom.

### CONSIDER BATHROOM SCHEDULING

To reduce groups of students converging on restrooms all at once and ensure there's space for social distancing, schools can implement a bathroom schedule based on last names or a system that limits the number using the facility at a time.

Some of these actions are more significant than others but each can make students, faculty and staff feel safer and more comfortable as they head back to school.



NEW SEMI-PERMANENT CUSTOM FLOOR TILE

# GIVE THEM A SAFE & POSITIVE WELCOME BACK

Welcome students and teachers back to practice safe physical distancing behaviors with simple to install, semi-permanent alterations to existing floors and architectural surfaces.

To help everyone survive and thrive in these challenging times, schools must anticipate the well-being of every guest. Cleanliness and clear communication are imperative, as are trust and comfort.

Safe Distance Flooring™ by CreativeEdge gives you in-stock or custom-designed messages in temporary or semi-permanent finishes that you can easily integrate into spaces to welcome people back by clearly communicating that things are different – by design.

-  [View Product Portfolio](#)
-  [Buy Online](#)
-  [Request Custom Information](#)



by CreativeEdge

In conjunction with **Safe Distance Flooring**



## Big Impact, Small Investment Ways to Promote Safe Physical Distancing

Being separated from other people is hard. It's counter to our very nature, and in educational environments it limits our ability to communicate, teach, and learn (and have fun). But right now, it's the thing we must do to keep each other safe. This paradox was described by ASID CEO Randy Fiser in *interiors+sources* magazine: "We need social distancing, but we also need to understand that the human brain and the human body are wired to have human contact and human connection. So, how do we do this in a way that doesn't make everybody feel like they're being put into a corner or in self-isolation?"

### PHYSICAL DISTANCING IS THE #1 GOAL

Public health experts are predicting a long, slow transition back to the carefree activities of the pre-COVID-19 past. A transition that will require alterations to most face-to-face experiences. Thought leaders around the world have begun to study and explore the likely scenarios that must be implemented before people can get back to work and back at school. While specifics remain foggy, they generally agree on these key facts:

- Physical distancing is the single most effective way to control the spread of the coronavirus that causes COVID-19.
- Unprecedented restrictions on personal movement and business operations will continue to varying degrees globally for months.
- The pandemic crisis has forced consumer behavior to change drastically and quickly. Some of that change will be long-lasting.

### THE GOOD NEWS

Given these realities, many changes will be necessary as schools pursue re-opening strategies, but there are some familiar and comforting truths we can cling to:

- People need shopping, travel and learning experiences. When they can go back, there will be demand. Economies that have re-opened are seeing anecdotal evidence of "revenge shopping" in several sectors.
- Honest, transparent, positive experiences with brands are more important than ever. The

In conjunction with **Safe Distance Flooring**

brands that invest creatively in telling a sincere story will be the ones people trust, and likely the ones that thrive after the pandemic.

- Because we don't know how long physical distancing behaviors will be required, big investments in changes to physical spaces can be hard to swallow, but small investments can have big impact.

### SMALL CHANGES PROMOTE TRUST AND COMFORT

Designers and facility managers must anticipate the well-being of every guest and protect the wounded psyche of students, parents and teachers who are equal parts excited and fearful of going back to the classroom. Architectural surfaces like flooring provide obvious opportunities to communicate new procedures and encourage new behaviors, and they can be quick, simple and affordable to implement.

Temporary floor stickers can subtly or overtly remind people to stay six feet apart. Semi-permanent floor tiles can do the same, while maintaining interior design integrity and standing up to high traffic and enhanced cleaning regimes. The new [Safe Distance Flooring](#) line from custom flooring expert [Creative Edge](#) offers ready-to-install floor tiles with physical distancing reminders in carpet, luxury vinyl, and vinyl composite tiles, as well as a line of floor stickers for indoor and outdoor spaces. The Safe Distance Flooring line includes quick-ship standard designs as well as completely customizable options that turn any floor into a creative canvas for designers and architects.

### THE IMPORTANT TASK OF DESIGNING SAFE EXPERIENCES

Well-designed, brand-appropriate messaging thoughtfully integrated into spaces will calm fears and build the trust of guests and employees by clearly communicating that things are different – by design.

In crisis mode, essential businesses erected makeshift glass barriers to keep their cashiers safe. As scary and strange as it is to see the normally smiling face of a cashier now behind a rickety, yet germ-impermeable wall and face mask, it reminds you that this employee's manager cares about her and is doing what they can to keep her – and you – safe.

In essential businesses, in crisis mode, this approach was effective and to be commended. But what will be needed to reassure students and teachers in classrooms when they know you've had months to prepare? Tactile, direct, comforting, and sincere communications are critical to calm nervous students. The perils of not taking this need seriously will be anxious and distracted students at best, and an increase in COVID-19 cases at worst.

Learn more about Safe Distance Flooring at [safedistanceflooring.com](https://safedistanceflooring.com)



Floor sticker graphics can communicate with direct urgency, or set a more gentle tone that eases fear and promotes comfort.



Carpet and vinyl tiles – fabricated in the customer's own carpet or vinyl material – can be cut in standard or custom designs, including lettering.

**CLICK ON TITLE TO GO TO PAGE**

## **PART 2**

### **CLEANING PROTOCOLS**

Guidance for Cleaning and Disinfecting Public Spaces,  
Workplaces, Businesses, Schools and Homes (CDC)..... 32

COVID-19 Resources for Custodians and Others: Cleaning Tips  
(American Federation of Teachers)..... 34

The Proper Cleaning and Disinfection of Formica  
Products (Formica)..... 37

# Guidance for Cleaning and Disinfecting

## PUBLIC SPACES, WORKPLACES, BUSINESSES, SCHOOLS, AND HOMES

This guidance is intended for all Americans, whether you own a business, run a school, or want to ensure the cleanliness and safety of your home. Reopening America requires all of us to move forward together by practicing social distancing and other [daily habits](#) to reduce our risk of exposure to the virus that causes COVID-19. Reopening the country also strongly relies on public health strategies, including increased testing of people for the virus, social distancing, isolation, and keeping track of how someone infected might have infected other people. This plan is part of the larger [United States Government plan](#) and focuses on cleaning and disinfecting public spaces, workplaces, businesses, schools, and can also be applied to your home.

### **Cleaning and disinfecting public spaces including your workplace, school, home, and business will require you to:**

- Develop your plan
- Implement your plan
- Maintain and revise your plan

Reducing the risk of exposure to COVID-19 by cleaning and disinfection is an important part of reopening public spaces that will require careful planning. Every American has been called upon to slow the spread of the virus through social distancing and prevention hygiene, such as frequently washing your hands and wearing face coverings. Everyone also has a role in making sure our communities are as safe as possible to reopen and remain open.

The virus that causes COVID-19 can be killed if you use the right products. EPA has compiled a list of disinfectant products that can be used against COVID-19, including ready-to-use sprays, concentrates, and wipes. Each product has been shown to be effective against viruses that are harder to kill than viruses like the one that causes COVID-19.



This section provides a general framework for cleaning and disinfection practices. The framework is based on doing the following:

1. Normal routine cleaning with soap and water will decrease how much of the virus is on surfaces and objects, which reduces the risk of exposure.
2. Disinfection using EPA-approved disinfectants against COVID-19 can also help reduce the risk. Frequent disinfection of surfaces and objects touched by multiple people is important.
3. When EPA-approved disinfectants are not available, alternative disinfectants can be used (for example, 1/3 cup of bleach added to 1 gallon of water, or 70% alcohol solutions). Do not mix bleach or other cleaning and disinfection products together--this can cause fumes that may be very dangerous to breathe in. Keep all disinfectants out of the reach of children.

**It's important to continue to follow federal, state, tribal, territorial and local guidance for reopening America.**

#### **A FEW IMPORTANT REMINDERS ABOUT CORONAVIRUSES AND**

#### **REDUCING THE RISK OF EXPOSURE:**

- Coronaviruses on surfaces and objects naturally die within hours to days. Warmer temperatures and exposure to sunlight will reduce the time the virus survives on surfaces and objects.
- Normal routine cleaning with soap and water removes germs and dirt from surfaces. It lowers the risk of spreading COVID-19 infection.
- Disinfectants kill germs on surfaces. By killing germs on a surface after cleaning, you can further lower the risk of spreading infection. EPA-approved disinfectants are an important part of reducing the risk of exposure to COVID-19. If disinfectants on this list are in short supply, alternative disinfectants can be used (for example, 1/3 cup of bleach added to 1 gallon of water, or 70% alcohol solutions).
- Store and use disinfectants in a responsible and appropriate manner according to the label. Do not mix bleach or other cleaning and disinfection products together — this can cause fumes that may be very dangerous to breathe in. Keep all disinfectants out of the reach of children.

[CLICK HERE FOR FULL REPORT](#)

# COVID-19 Resources for Custodians and Others

## CLEANING TIPS

### WHAT WE KNOW

Cleaning and disinfecting are part of a broad approach to preventing infectious diseases in schools. Infectious diseases are generally spread through harmful microorganisms or environmental pathogens, such as viruses, bacteria, fungi, etc., via direct person-to-person contact with an infected individual or by touching objects contaminated by infected individuals, such as doorknobs, elevator buttons, handrails and other frequently touched surfaces. These germs are then transmitted from the hands to the nose, mouth or eyes.

Effective cleaning and disinfecting of environmental surfaces, including “high touch” or frequently touched surfaces, significantly decreases the number of environmental pathogens on those surfaces, which in turn, reduces the risk of transmission and infection. These “frequency areas” and items known or likely to be contaminated should be disinfected at least daily.

**Exactly how long the virus that causes COVID-19 lives on hard surfaces is unknown at this time, but other coronaviruses live up to several days on such surfaces. Therefore, we recommend taking protective measures when cleaning and disinfecting surfaces.**

### THE DIFFERENCE BETWEEN CLEANING AND DISINFECTING

- **Cleaning removes germs**, dirt and impurities from surfaces or objects. Cleaning works by using soap (or detergent) and water to physically remove germs from surfaces. This process does not necessarily kill germs, but by removing them, it lowers their numbers and the risk of spreading infection.
- **Disinfecting kills germs** on surfaces or objects. Disinfecting works by using chemicals to kill germs on surfaces or objects. This process does not clean dirty surfaces. By killing germs on a surface after cleaning, it lowers the risk of spreading infection.

- **Sanitizing lowers the number of germs** on surfaces or objects to a safe level, as judged by public health standards or requirements. This process **works by either cleaning or disinfecting** surfaces or objects to lower the risk of spreading infection.

## Best Cleaning and Disinfecting Practices

### CLEAN AND DISINFECT SURFACES AND OBJECTS THAT ARE TOUCHED OFTEN

- Follow your school's standard procedures for routine cleaning and disinfecting. Typically, this means daily sanitizing of surfaces and objects that are touched often, such as desks, countertops, doorknobs, computer keyboards, hands-on learning items, faucet handles, phones and toys. Some schools may also require disinfecting these items every day. Standard procedures often call for disinfecting specific areas of the school, like restrooms.
- Immediately clean surfaces and objects that are visibly soiled. If surfaces or objects are soiled with body fluids or blood, use gloves and other standard precautions to avoid coming into contact with the fluid. Remove the spill, and then clean and disinfect the surface.

### KEEP ROUTINE CLEANING AND DISINFECTING PRACTICES IN PLACE

- Most viruses are relatively fragile, so standard cleaning and disinfecting practices are sufficient to remove or kill them. Special cleaning and disinfecting processes, including wiping down walls and ceilings, frequently using room air deodorizers and fumigating, are not necessary or recommended. These processes can irritate eyes, noses, throats and skin; aggravate asthma; and cause other serious side effects.

### CLEAN AND DISINFECT CORRECTLY

- Always follow label directions on cleaning products and disinfectants. Wash surfaces with a general household cleaner to remove germs. Rinse with water and follow with an Environmental Protection Agency-registered disinfectant to kill germs.

[CLICK HERE FOR FULL REPORT](#)



Formica® Brand Surfaces  
Durable, Beautiful and Easy to Clean

▶ VISIT [FORMICA.COM/CLEAN](https://www.formica.com/clean)



In conjunction with **Formica**

# The Proper Cleaning and Disinfecting of Formica Products



## FORMICA WRITABLE SURFACES

### GLOSS (-90)

- Wipe with a clean, nonabrasive cotton cloth or standard dry erase eraser
- If residual streaks remain after normal cleaning, use a mild glass cleaner, then dry with a clean, non-abrasive cotton cloth
- Stubborn marks may require alcohol or acetone
- Marker left on the surface for long periods of time may require a marker board cleaner and conditioner specifically designed for dry erase surfaces



## FORMICA WRITABLE SURFACES

### CHALKBOARD

- Wipe clean with a sponge and water
- Stubborn marks may require alcohol or acetone
- Always test chalkboard pens for ghosting on a small area before using on a larger surface

In conjunction with **Formica**

**REMOVING GLUE, PAINT AND VARNISH**

- Newly installed decorative laminate can have a streaky appearance caused by contact adhesive used during fabrication
- Clean with a non-abrasive cotton cloth and an adhesive solvent
- For Super Glue, acetone works well
- Most oil-based paints, varnishes and lacquers can be removed from decorative laminate surfaces with a suitable solvent



[CLICK FOR MORE INFORMATION](#)

**CLICK ON TITLE TO GO TO PAGE**

# **PART 3**

## **RE-IMAGINING THE CLASSROOM**

Learn Together: A Return to Schoolbook (Shaw Contract)..... 41

Roadmap to the Resilient Campus (SmithGroup) ..... 44

Silver Linings – Lessons to Carry into the Future of Education  
(Corgan) ..... 47

Back to School: What K-12 Architects Can Learn from  
Hospitals in the Wake of COVID-19 (Perkins and Will) ..... 50

Designing Post-COVID Learning Spaces (Steelcase)..... 53

Returning to School: Ideas, Options and Solutions (KI) ..... 56

Flexible Space Management (Hufcor)..... 59



# Learn — 6 ft — Together

A campus is never a singular space, it is a place of connection and creativity. A place to be curious and adapt to new ways to teach, learn, socialize and connect. As we come back together let's encourage students to keep their space through non-intrusive coloring on the floor. While physical distancing is a concern, color blocks will encourage students to keep apart. When physical distancing is no longer a concern, the flooring will simply have colorful visuals, creating a lively and creative environment.

Explore the Campus Collection at [shawcontract.com](https://www.shawcontract.com)

**ShawContract®**





# Learn — 6 ft — Together

## A RETURN-TO-SCHOOLBOOK

ShawContract®

Our Return to Schoolbook presents **considerations** for design ideas that support many of the established recommendations for returning to school, based on a range of scenarios of time, budgets and aesthetic preferences.

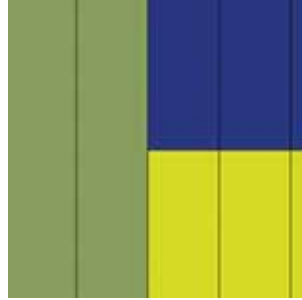
Your Shaw Contract account manager can make product recommendations based on your unique situation.

**We'll continue to communicate and share with you as things evolve.**

## Extra special spaces

Special education rooms may need unique accommodations to plan for students with compromised immune systems. Consider resilient sheet products that can handle healthcare-grade cleaning practices.

VITALITY SHEET



Dimensions:  
Each square is 6.5 ft | 1.98 m



Dimensions:  
Each circle diameter is 6 ft | 1.82 m

## Can you hear me?

If hybrid learning takes place with students in-person and online simultaneously, acoustics will be imperative to ensure that the instructor can be heard without in-room echo, or background noise from other students. Carpeting and/or other sound absorbing materials on furniture, walls or ceilings will be important to keep the in-room sound manageable. If floor sitting in learning spaces is desired during conversations, consider using free-floating carpet squares that will be assigned to an individual student (their name can be written directly on the back or on a sticker), instead of standard classroom rugs.

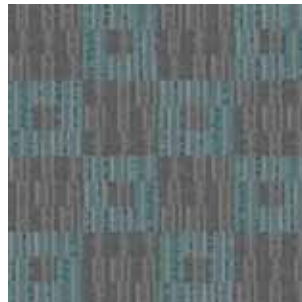


MINDFUL PLAY CARPET TILE

## Extra special spaces

Encourage students to keep space between themselves and their peers through nonintrusive coloring on the floor. While physical distancing is a concern, color blocks can encourage students to keep apart. When physical distancing is no longer a concern, the flooring will simply have dynamic and colorful visuals, creating a lively environment.

### CAMPUS & UNITE



Campus carpet tile  
24 24 in | 61 61 cm



Unite LVT, Cove  
9 48 in | 22.86 121.92 cm

## Keep the outdoors, out

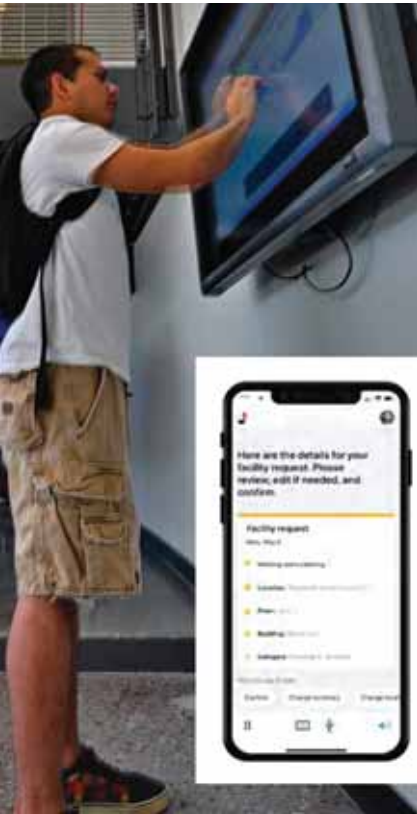
- The dirt that comes into a space, must be removed from a space. Consider incorporating entryway flooring systems into all entrances of a building to keep soil out of interior spaces, making your regular cleaning more efficient.
- Walk off flooring can trap up to 80% of the soil brought into a building in the first 12-15 feet, which in turn can lower the frequency of deep cleanings throughout your interior spaces. The heavy texture of this flooring scrapes and absorbs dirt, sand, and moisture, which will extend the life of your flooring.
- A study by the International Sanitary Supply Association (ISSA) showed 1,000 people in 20 days can track 24 pounds of soil into a space. The cost to remove one pound of soil is approximately \$600.



PATH & PORTAL WALK-OFF TILE, HYPE  
CARPET TILE, SHIFT LVT

[CLICK HERE FOR FULL REPORT](#)

# Roadmap to the Resilient Campus



## SCHEDULING

In the near term, planning efforts should consider whether it might be extending the duration of class change periods. This could be helpful to decongest circulation pathways such as hallways and pinch points such as bathrooms and stairwells. It can also assist with scheduling periodic cleaning of the classrooms throughout the day, if such resources are available. Typically, M-W-F classes have a 10-minute class change and M-W and T-R classes have a 15-minute change, so it is worthwhile to consider what proportion of coursework falls into each category. Extending the class change to 20-25 minutes instead of the typical 10-15 could be beneficial, yet effectively lengthen the instructional day and potentially encourage students to congregate between classes without sufficient space in which to do it. Modelling different scheduling scenarios can help determine how to optimize the approach, as well as identifying outdoor and other locations appropriate to be between classes.

Technologies can be easily leveraged to facilitate student and faculty independence on campus while mitigating transmission risk. **Mobile room booking applications** can allow clean rooms to be identified and booked on the fly, used to crowd-source information regarding needed work orders, and **send push notifications** when desired spaces become ready after cleaning. These technologies can be useful long after re-opening to give the campus community greater control of their spaces and increase space utilization overall.

## INSTRUCTIONAL

Instructional space that is well designed and furnished for flexibility can accommodate social distancing more readily and efficiently than spaces with fixed stations. Flexible spaces are also well positioned to accommodate programmatic and pedagogical changes, such as trends toward active learning environments which have been shown to achieve better outcomes. Software modules exist that can easily run spatial algorithms to quickly calculate maximum spatial occupancy of all campus spaces under 'social distancing' scenarios. These modules run on existing campus IWMS software,

and can provide reference point should the campus need to return to social distancing later, as well as create more versatility for occupancy planning in the future. Strategic repositioning of existing assets for future flexibility can also be achieved through thoughtful and comprehensive analysis of the existing space portfolio. Additional consideration should be given to circulation into and out of classrooms, as well as horizontal and vertical circulation within buildings. Classrooms on upper floors can remain closed to reduce use of stairwells and elevators, if scenario modelling indicates that they are not needed. Elevator use should be limited and prioritized for ADA access.

### LARGE FORMAT

Courses with an enrollment of 80 or more may be successfully migrated to online platforms and a significant portion of this coursework may not return to the classroom. Didactic content can be effectively communicated online, but students may not have the opportunity for team-based and informal, peer-to-peer learning and engagement.

- Promote faculty development to enhance online delivery, learning outcomes and student satisfaction.
- Add **greater emphasis on small group and breakout formats**, such as with graduate fellows, to enhance in-person learning. Note that these sessions can be more easily scheduled during times in which campus spaces are less heavily used.
- Provide opportunities for students to safely engage in informal, peer-to-peer learning—socially distant or virtual discussion groups.
- Explore partnerships with online curriculum developers who work primarily in the corporate training space but have tools and platforms that are readily adapted to the needs of higher learning.

### MEDIUM FORMAT

Courses within the 40-80 class size can effectively be remapped into larger classrooms to provide appropriate social distancing; because these courses are scheduled, social distancing and **decontamination is more easily operationalized**.

- Establish classroom capacity for entire inventory before running multiple scheduling scenarios with registrar to find best fit.
- Stagger course start and stop times to minimize surge in corridors and at building entries.
- Utilize text-based messaging or mobile campus app to alert crews.
- Develop **hybrid courses** with a significant online component, even for medium and small courses; focus in-person time on dialogue and engagement.

- For appropriate courses in advantageous climates, maximize use of outdoor spaces. Note that slides printed on paper can benefit certain types of learners.

### EXPERIENTIAL LEARNING

Class labs, simulation learning, and clinical learning present distinct challenges. These courses often employ group learning and require access to special equipment and facilities.

- Instructional labor costs limit the number of sections that can be taught; institutions are realizing they cannot afford to achieve social distancing in class labs by offering multiple sections.
- In the hybrid model, many faculty are re-thinking their curricula—focusing on desired learning outcomes—and implementing new pathways to achieve them.
- Review potential to operate class labs like “drop-in” language labs; students **schedule a time slot** for completing the lab-based session in facilities operating at 30%-50% of capacity. Again, software can be used to make this relatively easy to organize.
- Leverage student labor where appropriate to offer increased hours of operation for experiential learning settings.

### CAMPUS AUXILIARIES

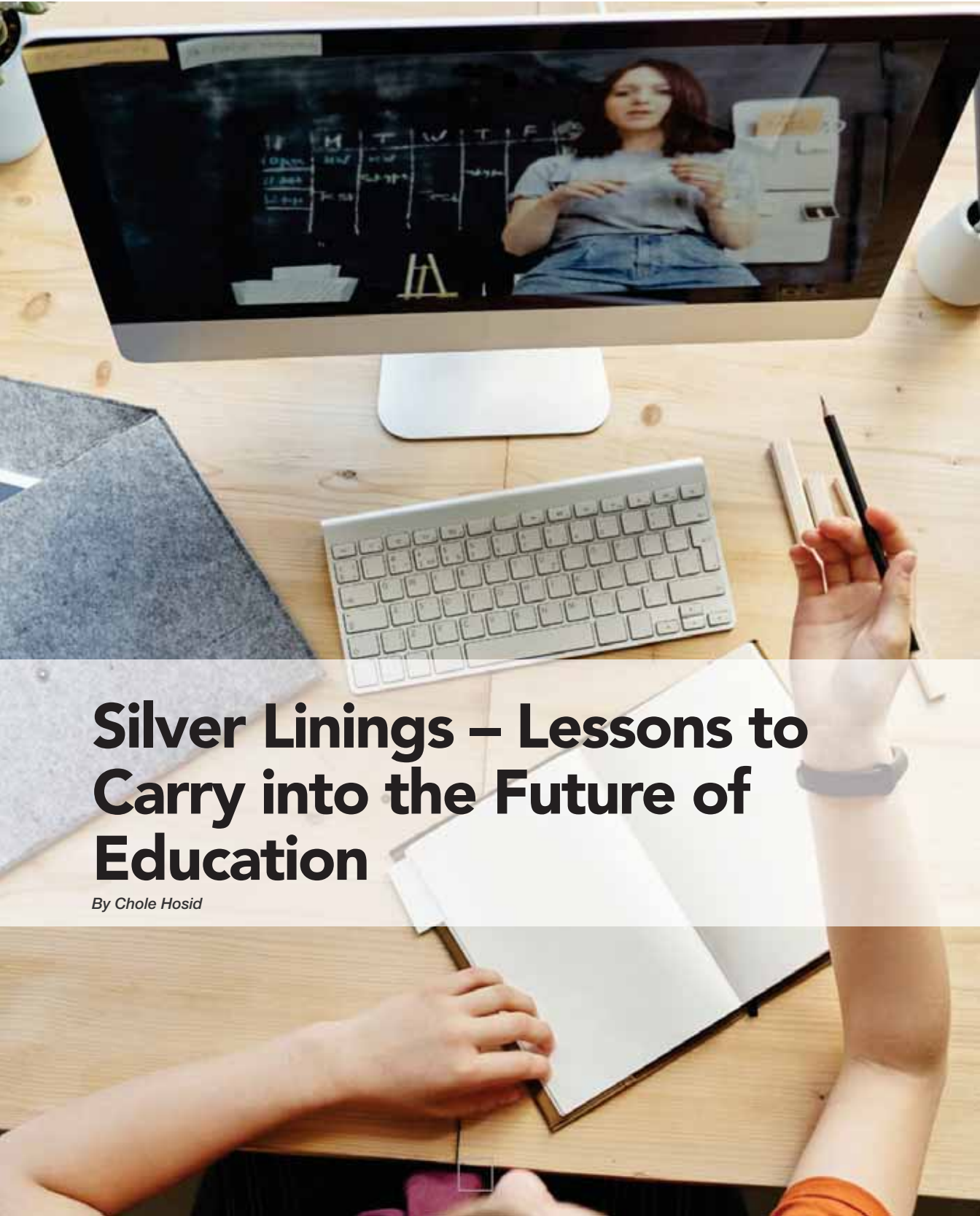
Auxiliary enterprises—residential, dining, parking, continuing education—play a major role in contributing to the on-campus experience. As a source of revenue that is directly impacted by whether or not students are physically on-campus, they have been hard hit by COVID-19. Looking ahead to the Fall 2020 semester, scenario planning analyzes a range of parallel scenarios that will enable auxiliary operations to re-engage with students and reactivate the associated revenue stream.

### RESIDENTIAL

To address the residential experience, campuses are looking a variety of scenarios. The majority are looking to **decrease their normal capacity** through several strategies, including:

- Limit all existing rooms to single occupancy use, though it will yield a significant reduction in revenue.
- Offer double occupancy rooms with coordinated and pre-determined assignment.
- Establish **off-site accommodations** through master-lease arrangements with local hotel operators. Flexibility in this model allows for phased re-densification of residence halls, if needed.

[CLICK HERE FOR FULL REPORT](#)



# Silver Linings – Lessons to Carry into the Future of Education

*By Chole Hosid*

Sometimes it takes a big change or a paradigm shift to see ourselves and the world around us with clear eyes and an open mind; to lift the haze of normalcy and routine to reveal the truth of what really matters. Somewhere in the space between what was and what will be, there's an opportunity for reflection where we can decide what we want to carry with us into the future and what we need to leave behind.

A pause, and in this case, a "Great Pause," to take a breath, re-center ourselves and re-prioritize our connections, our communities, and our health and wellbeing. Right now, we are in that space — anxiously hovering in the threshold between the world as we knew it and our post-COVID future, and there are valuable lessons we are learning during this quarantine era that have the capacity to improve our lives moving forward if we let them.

Through this experience, we've seen the true value of our schools, colleges, and universities and all that they bring to our students and to our communities. We have a new appreciation for our educators, for shared learning experiences, and for all of the irreplaceable resources a school provides to support students' health, wellbeing, and success as they build meaningful knowledge and skills, and develop on a social and emotional level. While it's been a strange and challenging time, some of the adaptations that have been made in response to this pandemic may still have a place in schools and classrooms in a post-COVID world. The importance of creativity and flexibility, the value of human connection, and a new perspective on our education system are all valuable COVID-19 insights to take with us to improve learning and education in the future.

### CREATIVITY AND FLEXIBILITY

Students and teachers are engaging with learning in new and unexpected ways: shifting online, retooling assignments, and adapting learning experiences to work for at-home learning environments. Simply echoing the activities and procedures that were planned for person-to-person teaching is not an effective approach to facilitating learning online, and for many hands-on and context-dependent learning experiences (like lab or field work or the performing arts), doing so may not even be possible. Making a successful transition to learning online and from home has required teachers, professors, administrators, students, and parents to be creative and flexible in their approach to education. The innovative solutions that have come out of this effort should not be abandoned upon our return to 'normalcy'.



Incredible examples of this creative problem-solving are all over the web and popping up in our newsfeeds, highlighting the true power of ingenuity during a time of great adversity. Shifting lesson plans and assignments to respond to and embrace the challenges and opportunities of this time, rather than simply ignoring them, enhances learning and integrates 'context' as a tool for building meaningful learning challenge that is pushing us to adapt, rather than a threat to learning as we know it, the inherent stress educators and students are feeling in this experience can become constructive fuel for creativity and flexibility during this in-between time now, and in the new learning typologies we'll see in our post-COVID classrooms.<sup>3</sup>

### THE VALUE OF HUMAN CONNECTION

During this period of social distancing, one thing that's been made abundantly clear is that humans are social creatures. We value meaningful interactions and quality time with the people we care about, and so much of what brings color and richness to our everyday lives are the connections we share with our families, our friends, our coworkers, and our classmates. And while we know now more than ever that nothing can really replace the feeling of actually being together in the immediate sense, we are fortunate that we happen to live in a time in which technologies and video communication platforms are abundantly available to help us safely bridge the gap.

Physically distancing from others reminds us of the importance of staying connected and has pushed all of us to be more deliberate and creative in our efforts to do so. Through the many Zoom calls we're having for work, for school, and for fun, we've caught a rare glimpse into the real lives of the people we know- their kids, their pets, and their quirky living room artwork all coming into focus for the first time, reminding us that we're all humans with lives outside of our schools and offices. Through this experience, we're gaining a holistic picture of ourselves and of each other, underscoring the importance of prioritizing empathy and balance in our lives- a lesson to hold onto as we look to return to schools and offices in the coming months.

[CLICK HERE FOR FULL REPORT](#)

# Back to School: What K-12 Architects Can Learn from Hospitals in the Wake of COVID-19

By Rachael Dumas

The current health crisis is upending our everyday lives. Children learning from home is a new reality for many across the globe and hour-by-hour changes are raising many questions: How long will schools remain closed? How can parents and educators make remote learning a happy and meaningful experience? How can we prevent or reduce the chances of this disruption happening again?

## LEARNING COMMUNITIES ACROSS THE WORLD ARE RESPONDING

With urgency and grit, they nimbly deliver a sense of stability and community to isolated families. Some are using otherwise-idle buses to deliver food to the many students who rely on school meals for nourishment, others are hosting spirit weeks via social media to help children feel connected, and some districts are using their resources to deliver hand sanitizer where it is urgently needed. These responses shed a bright light on the vital importance of schools as both institutions for learning and places for community building.

When this health crisis passes and some of the trauma has settled, educational institutions will look for insights to help them prepare for future pandemics or any other challenge the world of learning may face. To help, we collaborated with our healthcare experts to understand the tools they employ when designing spaces for healing that mitigate the spread of infection and boost overall well-being. We understand this is a complicated and nuanced issue, but hope that by sharing these best practices, we can help schools build resilience ahead of future outbreaks and other stressors.

Below are techniques architects can adapt from hospital design to help reduce the rate of infection, improve well-being, and help school communities stay healthy.

## **STRATEGIC MATERIAL SELECTION, DESIGN SOLUTIONS, AND CLEANING PROTOCOLS**

Like hospitals, schools can integrate materials, design strategies, and cleaning procedures that mitigate opportunities for pathogen growth, such as:

- Increasing the number and visibility of hand washing stations
- Reducing the number of unnecessary surfaces where dust and germs collect
- Designing surfaces to be easily cleaned
- Thought should be given to surface details, materials, seams, etc.
- Minimizing surface clutter to make cleaning easier
- Increasing focus on indoor air quality and investing in mechanical air filtration systems
- Including Ultraviolet C (UVC) light to kill microorganisms
- Including High Efficiency Particulate Air (HEPA) filtration to remove airborne particles
- Developing multifaceted cleaning protocols
- Including products that have a low impact on human health and the planet
- Using cleaners that are effective on bacterial, viral, and fungal infections
- Maintaining and reviewing instructions for cleaning staff
- Considering how cleaners impact finishes and textiles

## **DECREASING TOUCH THROUGH DATA-DRIVEN AUTOMATION**

Advances in technology continue to increase data-driven automation in hospitals around the world. This trend creates more efficient, safer healthcare environments and many schools are incorporating technology to reduce frequently touched surfaces and maintain overall building health. Advances in automated processes, hands-free technology, and voice/device-activated solutions include the following:

- Networks of sensors that track temperature, humidity, movement and density and can adjust as needed to decrease contact and maintain optimal conditions for health and safety
- Sensors that monitor facility equipment and alert building managers when repairs are needed
- Devices that facilitate touchless access to regularly used spaces like classrooms and bathrooms



The restrooms at North Kansas City Schools' SAGE (Students in Academically Gifted Education) facility feature automated sinks and no door handles between the hallway and the hand washing area.

### INFLUENCING HUMAN BEHAVIOR

An individual's health is affected by the environments in which they live, learn, work and play. The effects of the built environment on students are both direct, by influencing air quality, for example, and indirect, by influencing human behaviors. The World Health Organization (WHO) recognizes the value of human behavior in controlling pandemics. Its Outbreak Communications Planning Guide proposes behavioral changes can reduce

the spread by as much as 80%. Below are suggestions that can influence desired behaviors:

- Creating messaging that focuses on society, community and individual behavior
- Special attention can be paid to how individual student and staff behaviors can protect others
- Focus on creating a balanced message that does not make the problem seem insurmountable while not downplaying concern
- Considering where belongings are placed to limit the contact of personal objects with shared areas and surfaces
- Reviewing patterns of student movement as they relate to shared and frequently used surfaces and areas
- Contemplate the amount of student movement
- Examine the process of cleaning surfaces when students move between stations/areas

Recent events have made it clear that schools play a central role in the overall health of the community. The ideas above offer not only short-term solutions but can also help schools create a long-term vision that will build overall resilience. So much is still unknown, but whichever solution is necessary, it is apparent now more than ever that the actions we take today will help us prepare us for the future.

[CLICK HERE FOR FULL REPORT](#)

# Post-COVID Learning Spaces

## NAVIGATING WHAT'S NEXT

Returning to school or campus will challenge every institution to rethink their capabilities for providing blended in-person and remote learning experiences to help create a safer environment for students, educators and administrators. During the shutdown, learners and educators around the world found themselves participating in an unparalleled remote learning experiment. Administrators, educators, students and parents have been forced to find new ways to teach and learn under immense pressure. For some, it means a heavily amplified use of online platforms, processes and tools that were already in place. Yet for many, remote teaching and learning is uncharted territory with a steep learning curve. For too many students, it has meant their education has come to a halt due to lack of access to basic technological building blocks — a device and internet access — which will have consequences for years to come.

There is deep uncertainty around what the landscape of education will look like in a post-COVID world. In the short term, it's unclear when students and educators will be able to return safely to school or campus — and how the next academic year will be structured. In the longer term, COVID-19 has highlighted the need for new approaches, models and solutions.

Adaptability, resilience, creativity and higher problem-solving capabilities are the skills educators and students will need more than ever moving forward. Students are self-directing their learning in ways they have not before, while teachers are employing their ingenuity and creativity to redesign learning experiences to support their students. We know these skills and dispositions are needed to thrive in the future. Consequently, learning experiences will need to become more personalized, student-centered and student driven. Learning at one's own pace does not always mean learning alone, so collaborative, interdependent learning and teaching experiences will be vitally important. New adoption of technological tools and platforms to enhance and better support the learning and teaching experience will become a greater need in the future.

The importance of wellbeing, already a focus for administrators and educators, is being amplified by the pandemic and the constraint of online learning platforms. The stress, anxiety and mental health issues that students and educators may already face without the needed coping skills are intensified by the uncertainty, isolation and overwhelming nature of COVID-19. As they plan for the return to school and campus, administrators recognize the need to be more intentional about the social, emotional and physical wellbeing of their students and educators — and the greater need to ensure their physical and psychological safety.

We know that face-to-face experiences will be more important than ever. Education is more than just teaching and learning. It is about the interactions people have with one another — between colleagues, friends and the community. It is the intangible energy of ideas and scholarship. It is the extracurricular activities that drive further purpose through clubs, arts and sports. And it is the small serendipitous moments that happen in hallways, while walking across campus or meeting up with friends or life experiences like living in residences. These experiences are rooted in the physical spaces of schools and campuses. But educational institutions cannot simply pick up where they left off – they will need to change with the resolve to be stronger, more resilient and adaptable communities of curiosity, discovery, creativity and collaboration where all students and educators can thrive. It is an opportunity to re-evaluate and reimagine what education can be.

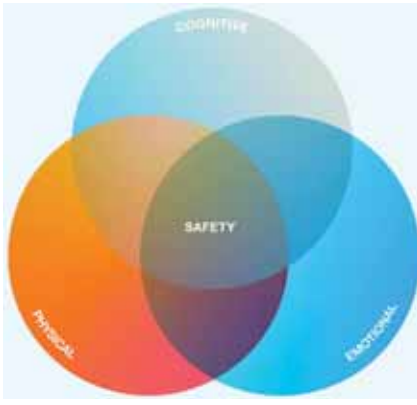
As we navigate what's next, solutions need to be holistic and consider not just furniture, but also materials, technology, planning paradigms and even behaviors and protocols. Our ideas are rooted in the science of infection control as we work with human health experts to define national and local guidelines for what makes a school or campus safe. We also want to be practical, providing ideas that educational institutions can adopt now for the return to school and campus, but in a responsible way that also looks ahead to the near and far. Educational institutions must immediately be made safer, but also more resilient and more adaptive to the changes we can only imagine as new factors impact this post-COVID world.

### **PLANNING FOR THE UNKNOWN: SAFETY FIRST**

As administrators, educators and students plan to return to school or campus, we need to make choices carefully and responsibly. Safety and wellbeing must be paramount — everyone needs to be safe and feel safe. Wellbeing happens when there

is an intersection between our physical, cognitive and emotional health — safety is foundational to all three. Educational institutions need to be supportive, connected communities ensuring that:

- **Physically:** Students and educators can work and learn in places where they are able to stay active, healthy and safe, minimizing exposure to pathogens that cause illness.



- **Cognitively:** People can focus on teaching and learning and not be distracted by fear for their personal safety.
- **Emotionally:** People feel safe, supported and a sense of belonging so learning can thrive. They need to be confident that administrators have done everything possible to create a safe environment – especially for those who may be at higher risk.

### THE NOW, NEAR AND FAR

As we work with our global network of leading educational institutions, experts and partners, we recognize the importance of looking at the return to school or campus across the time horizons of now, near and far. For many institutions this will happen in waves and differ across geographies, as they bring students, educators and staff safely back.

#### NOW

During the first wave, portions of the learning experience, including some classes or activities, will again be held on campus in person, while online learning will continue for many students – with staggered daily and weekly schedules. Planning for now may require retrofitting learning spaces, based on a commonsense approach that adheres to governmental and global health guidelines, which include physical distancing, adding barriers and implementing cleaning and safety measures.

#### NEAR

At this stage, educational institutions may be ready to bring back most or all in-person classes and activities. Building on what we learn from our experiences and science, schools can begin reconfiguring learning and common spaces. This will involve new ways to layout space and change settings to offer longer-term solutions for enhanced safety.

[CLICK HERE FOR FULL REPORT](#)

# Returning to School: Ideas, Options and Solutions

## CONSIDERATIONS FOR THE CLASSROOM AND BEYOND

It's likely the return to school will begin with fewer students in each space, eventually returning to larger student groupings. For decades, the focus has been on physical density and in-person collaboration. The two need not be at odds, but the following spectrum is worth consideration given the current environment.



So as you plan your return to school, consider the following flexible solutions for the classroom and beyond to help you adapt to the ever-changing situation at hand.





### CONFIGURABLE CLASSROOMS

With solutions that are easy to reorganize, environments can immediately support distanced collaboration as well as distanced testing needs. Eventually, you could combine these two classrooms of furniture when your school community returns to full classroom sizes.



Distanced Collaboration  
(Immediate Solution)

Testing Needs  
(Immediate Solution)

Combined Classroom  
(Eventual Solution)

### MOBILE CLASSROOMS

To immediately achieve spatial distance, use individual student seating anchored by carpet insets, floor graphics or other wayfinding mechanisms to ensure students don't cross boundaries. These individual chairs can eventually flex back to support physical collaboration.



Distanced Individual Seating  
(Immediate Solution)

Collaborative Individual Seating  
(Eventual Solution)

[CLICK HERE FOR FULL REPORT](#)

# Safety through Flexibility



**FREESTANDING PROTECTIVE PARTITION**



**GF LOW PROFILE ACOUSTICAL GLASS WALL**

## **OPEN AND DESIGN SCHOOLS WITH PROTECTION IN MIND**

Hufcor partitions offer a seamless and safe solution to meet your specific strategies for reopening schools. Whether you are looking to provide safe temporary barriers or enhance the space flexibility, our operable and glass partitions bring dynamic options for you to maximize the new educational experience.

Hufcor utilizes fully custom design-build solutions, from self-support systems for movable panels and glass wall, to multiple protective partition options that meet the desired needs for any school space.

Contact your HUF COR Representative at [hufcor.com/protective](http://hufcor.com/protective)

### » **PORTABLE PROTECTIVE PARTITIONS**

- GLASS OR ACRYLIC OPTIONS
- ROLLING DIVIDERS
- EASY TO CLEAN
- SIMPLE SET-UP

### » **UNISPAN PRE-ENGINEERED SELF SUPPORT SYSTEM**

- » **LOW PROFILE GLASS SYSTEMS**
- » **SLIDING MARKER BOARDS**
- » **ANTI-MICROBIAL FINISHES**
- » **NO FLOOR TRACKS**

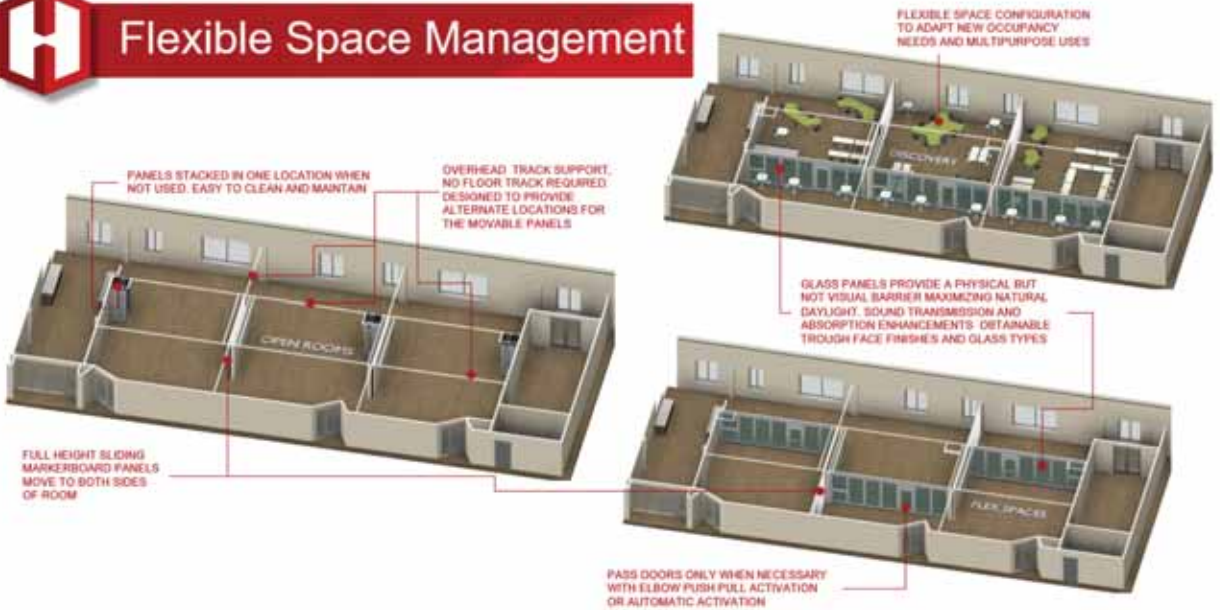


**UNISPAN SELF SUPPORT  
TRUSS SYSTEM**

In conjunction with **Hufcor**



## Flexible Space Management



# The New Classroom Space: Flexibility and Adaptability

A recent AIA publication, "Reopening America: Strategies for Safer Schools," addresses that "...the average classroom occupancy is 20 students in a typical U.S. public school. Classrooms can range from 700–1,300 square feet depending on state standards and student age groups. Students also typically work together in small groups while facing each other and move around the classroom for learning activities, which can increase the spread of germs and viruses..."

Strategies recommended by AIA when planning educational spaces include reducing the occupancy rates, enlarging space for students, design dispersed work surfaces, provide temporary booths or partitions, enhance acoustical treatments, and utilize natural daylight where possible.

Hufcor partitions offer a seamless and safe solution to meet your specific strategies for reopening schools. Whether you are looking to provide safe temporary barriers or enhance the space flexibility, our operable and glass partitions bring dynamic options for you to maximize the new educational experience.

Hufcor utilizes fully custom design-build solutions, from self-support systems for movable panels and glass wall, to multiple protective partition options that meet the desired needs for any school space.

HUFCOR GLASS WALL

In conjunction with **Hufcor**

Solutions may include:

- Operable panels with easy to clean and durable surfaces
- Glass wall panels
- Full height sliding marker boards
- Overhead track grid
- Pre-engineered self-support system
- Protective partitions

Addressing safety through flexibility and functionality will be important in the future. The impact of COVID-19 on the design of our schools remains to be seen. Adaptability will become more important for buildings and the spaces within them.



Floor area increased by opening an acoustical glass wall partition with manual and/or automatic operation



Unispan installed with header panels below ceiling height.



Built-in track system



Remote stack option

**Unispan** is a pre-engineered independent support system compatible with HUF COR Series 600 Operable Wall, Frameless GlassWall, Timberframe, GlassWall, Ultra Acoustic GlassWall, Accordion Door and FlexTact for quick, easy room division.

Unispan makes flexible space possible by providing added support to spaces that lack the required overhead structural support to carry the weight of operable partitions, making it **ideal for school remodels** because it permits installation of movable partitions without costly reinforcing modifications to the building structure.

- Two vertical posts transfer the partition weight to the floor, no additional footings are needed
- Support runs up to 40' (12.1m) long
- Custom header above or below ceiling
- Remote stacking available
- Electric Unispan option includes a built-in track system, motor and drive system and touch screen
- Adheres to Zone 4 seismic ratings

HUF COR UNISPAN

# PROTECTIVE PARTITIONS

*FREESTANDING  
CUBICLE  
ROLLER*



**FREESTANDING**



**CUBICLE**



**ROLLER**

Hufcor offers three new product lines to support architects and designers provide safer environments as social distancing protocols will require greater spatial separation with an aesthetic look.

## NEW RECONFIGURABLE PROTECTIVE PARTITIONS

- » *PORTABLE*
- » *EASY TO CLEAN*
- » *DURABLE*
- » *ECOFRIENDLY*
- » *SIMPLE SETUP*
- » *GLASS AND SOLID INSERTS*

AT HUF COR WE **DELIVER MORE**

 **HUF COR**<sup>®</sup>  
*shaping your experience*

[www.hufcor.com/protective](http://www.hufcor.com/protective)

**CLICK ON TITLE TO GO TO PAGE**

## **PART 4**

### **WHITE PAPERS AND RESOURCES**

Safe Return to Campus: How Penn State Leveraged Facility  
Technology to Navigate Capacity Reductions (Cartegraph) .... 64

Strategies for Student Engagement During and  
After COVID-19 (Haskell Education) ..... 67

Healthy and Trustworthy Educational Institutions  
(Distech Controls) ..... 70

Acoustical Felt and Our New World (Frasch) ..... 73



BUILDING: E-141

Tempest Building

Dharma Initiative

Address 715 Oceanic Way

Condition Excellent

Manager Hugo Reyes

Hours 6:00am-

Capacity 655

Occupancy 584

Vacancy Rate 11%

Gross Area 94,486 ft<sup>2</sup>

Usable Area 7,052 ft<sup>2</sup>

Assignable Area



*CARTEGRAPH FOR*  
**RETURN TO CAMPUS  
PLANNING**

Pinpoint high-risk areas in your buildings and facilities, determine mitigation strategies, and share alteration plans to protect your students, faculty, and staff in a COVID-19 world.

SOFTWARE STARTS AT **\$9,850/YR**

In conjunction with **Cartegraph**

# Safe Return to Campus

## How Penn State Leveraged Facility Technology to Navigate Capacity

With 33 million square feet of space spread across 23 campuses, facility management is a complex process at Penn State University under normal circumstances. In the midst of a global pandemic, the team leveraged their cloud-based, mobile-enabled facility information system to adjust their plans and prepare for a safe return to campus.

### CHALLENGE

The COVID-19 pandemic has changed the way the world thinks about physical proximity. The Center for Disease Control (CDC) recommends keeping a distance of six feet from anyone who isn't a member of your household. How do we safely go to work, return to school, and live our daily lives—while keeping physical distance to help control the spread of the virus? On a university campus, the challenges loom even larger. From classrooms to dining halls, thousands of students are walking the same hallways and congregating in common spaces. Figuring out how to adjust space use and capacity to accommodate the recommendations from the CDC is a significant undertaking.

### SOLUTION

Thankfully, the Planning Design and Properties team at Penn State already had up-to-date floor plan data and an accurate space inventory for its 90,000 spaces when the pandemic hit. In 2018, they had migrated from a home-grown facility information system to InVision, powered by Cartegraph. They were looking for a modern, GIS-based system with a visual, graphical component to support their facility operations moving forward. "In general, Penn State has been moving to more cloud-based solutions that are being maintained and improved by vendors instead of relying on solutions created by someone in-house who may move on or get busy with other things," said Alex Gentry, programs manager at Penn State.



In conjunction with **Cartegraph**

Each Penn State Commonwealth Campus has a business/facility director and one to two assistant facilities staff members. At the flagship University Park campus, each college and major unit has a facility coordinator as well. These team members are responsible for keeping their facility information up to date in the centralized system.

“Something that we have been pleasantly surprised by is getting our maintenance techs in the field to use the mobile version to find rooms,” said Gentry. “We used to hand out printed block plans to everyone. But we have techs who have jumped on this and are using their mobile phones to find the buildings and rooms.”

## RESULTS

To prepare for a safe return to campus in a COVID-19 world, the team used InVision to apply a capacity restriction of 60 square feet per person to offices, conference rooms, lounges, reception areas, multi-purpose spaces and any other area that students and faculty would gather. They trained their network of facility managers to use these guidelines as a starting point and adjust as needed.

“We said a lot of times: This is a place to start. If you have a room that you’re sure you can safely get more in or want less in, you can do a floorplan for that,” added Gentry. “It’s up to the individual units to actually go measure in the rooms to make sure they’re maintaining the six-foot spacing. It’s also up to them to enforce it.”

Beyond COVID-19 planning, the Penn State team is embracing key performance indicator (KPI) dashboards to monitor facility performance and space optimization. They track the number of active buildings, amount of square footage available, assignable square footage, and more. They also keep an eye on available office space by building to see which buildings are under- or over-utilized.”

Additionally, we use KPI cards to identify invalid items. For example, we can see when we have rooms with too many people assigned to them based on capacity or a non-assignable room that has someone in it,” explained Gentry. “I pass that information to the admin areas to clean up the data and keep everything up to date.”

# Returning to the Classroom with Haskell Education

## Ethos Chair with Storage Base

- Self-Contained Active Learning student chair/desk combination
- Easily accommodates 6' distancing
- 360° swivel allows students to control orientation
- Seat design with its flexible shell encourages movement
- Worksurface supports a Chrome book and full pad of paper
- All poly shell with rounded edges easy to clean
- Open wire mesh base allow debris to fall through to floor creating fewer cleaning touchpoints
- Seat cleanout for easy maintenance
- Cupholder option for water bottle or hand sanitizer
- Bleach cleanable
- Backpack storage keeps personal items close and off floor
- Ambidextrous worksurface supports right and left-handed students
- Perfect for future classroom applications post COVID-19



## The Rover Table

- Mobile Maker Station
- Fits through a 30" door
- Self-Contained and easy to move
- Easier to clean one table verses an entire Makerspace environment
- Deploy table into learning environment, remove, clean and redeploy to another area
- Flip Top allows table to be easily stored when not in use
- Industrial casters allow table to be moved both in and outdoors
- Culinary grade bins are dishwasher safe for cleanability
- Accommodates prepackaged maker manipulative programs
- Maximizes your investment as a shared resource
- Top dimension supports distancing between students
- Steel construction ensures longevity
- Perfect for future classroom applications post COVID-19



Learn. Think. Do.™

Furniture solutions for flexible and agile learning environments that encourage individual choice, increased movement and dynamic student engagement.

[haskelleducation.com/wellness/](https://haskelleducation.com/wellness/)



In conjunction with **Haskell Education**

# Strategies for Student Engagement During and After COVID-19

Communities across the country are faced with many challenges as they consider re-opening their schools in a COVID-19 world. As a designer and manufacturer of furniture solutions for learning environments we care deeply about the well-being of today's students and the amazing educators who lead and guide them. We understand the value that in-class learning can have where students can connect, explore and experience. Learning, Thinking and Doing have taken on new meaning in today's student centered learning environments. It is critical to their emotional, mental and physical well-being. How do we not lose these benefits while navigating the challenges of bringing our students and teachers back into the classroom?

The good news is that there are a lot of smart and creative people from many walks and professions exploring solutions from every possible angle. For our part, we have focused on solutions that we think can support the short term, but can also be leveraged for the long-term. As we see the landscape change for the better with COVID-19, these assets can be re-deployed and used to their fullest potential. With the investments that schools have already made in technologies and tools for distance learning, we know that every dollar is precious.

When we think about NextGen learning environments, we know that the more students interact, collaborate, and are involved in activities the better their learning outcomes. In simple terms, we frame this up in three areas of engagement as Learn-Think-Do. It's clear that we will not be able to return to this paradigm immediately. We can however, start to think about phasing each one of these activities where levels of collaboration and doing are increased over time. This will also require shifting the functions of spaces. Gyms and cafeterias might become makeshift learning spaces. What was once a maker space or media commons might be re-deployed as classroom space.

We also see a critical element of NextGen learning being greatly reduced or eliminated during this time of transition. This element is movement. We have gained so much knowledge over the last 10 years as to the power of movement for students both in cognitive terms as well as physical health. With the overriding design concepts of reduced class sizes, students sitting in static rows facing forward and remaining in the same classroom all day, it will be important that we provide some opportunity to move and fidget. Any opportunity for classes to move temporarily outside would also provide great benefit.

*In conjunction with* **Haskell Education**

Let's look at how each one of these elements can be re-introduced into the classroom and evolve so that we can slowly return the power of NextGen learning back to students and educators alike.

**LEARN:**

A lecture posture. Delivery of content and information that the students need to begin their understanding of concepts or ideas. This is the least challenging of the three to begin re-introducing into the classroom. Most of the design concepts that are being recommended center on returning to the classroom in small groups with lecture being the primary posture.

**THINK:**

Collaboration, exploration and examination of ideas and concepts and how they can be applied in solving problems and creating solutions. This becomes more challenging as group work or collaboration typically require a more intimate configuration. Interaction with their fellow students typically calls for face to face experiences and breaking down into smaller teams.

**DO:**

Connecting concepts, ideas and theories into real solutions through building, tinkering and making. This will be the most challenging component of NextGen learning to re-introduce. In its purest form students are working side by side, sharing materials and experimenting with common tools and equipment.

**PHASE ONE**

- Reduce class sizes to manage six feet distancing between each student
- Hybrid teaching with students in both the classroom and at home
- Students remain in one classroom when possible to reduce interaction in hallways
- Temporary conversion of gyms, cafeterias, media commons and makerspaces to create more open classrooms
- Bring classrooms outdoors with the utilization of tents or outdoor structures
- All-in-one self-contained seating units for easier cleaning and storage of personal items
- Desks/active learning chairs all facing one direction initially
- Large format monitors for better display – mobile when possible
- Distance learning tools for remote learning
- Mobile teachers' station – teachers move for class period changes vs students
- No shared supplies – each student has their own cubby or storage bins dedicated to their own supplies

**PHASE TWO**

- Introduce elements of collaboration back into the classroom
- Have students divide into smaller activity zones where they will rotate in these groups to interact with the teacher
- Seating postures that allow students to shift into small groups or cohorts while still maintaining 6' distancing
- Utilization of personal marker boards or other display tools that can be visually presented amongst their small group
- Use of multiple monitor displays for group sharing ... still at a distance

[CLICK HERE FOR FULL REPORT](#)



## It Takes a Village

We all want for our children to be able to safely return to their **education** and **socialization** at healthy and trustworthy schools.

We all want our educators to **feel safe** and not worry about their wellbeing.

**As a decision maker** of an educational institution, you can be part of the solution.

And the answer to getting children back in schools **lies in data**.

Take a look at **Distech Controls'** pro-active solutions and products that **reduce the risk of contagion**.

Visit [distech-controls.com/solutions](https://distech-controls.com/solutions)

In conjunction with **Distech**



# Healthy and Trustworthy Educational Institutions

More than ever, ventilation has become a critical component of non-residential buildings. A defective system can have serious consequences for the health of occupants by facilitating the transmission of viruses and bacteria. Throughout this section, we will go through the technologies available in the market that can assist with safely reopening educational institutions.

In all aspects of our lives, we expect the spaces we occupy to be healthy and trustworthy so that we can grow, learn, work and consume with peace of mind. Even more so when it concerns the well-being of our children and the professionals that see to their development.

If we cannot ensure the health and safety of students and staff, how can we expect parents to send their children back to school? What repercussions can we expect for children being homeschooled and secluded from social interactions.

Consider this, during the COVID-19 crisis, patients were afraid to go to the hospital for treatment for symptoms unrelated to the pandemic. As a result, the number of cases of patients who developed severe forms of illness – which are normally benign if treated promptly – increased, to the point where they became visible in medical statistics of people with a history of good health, thereby putting a strain on health systems.

Continued school closures risk “scarring the life chances of a generation of young people,” according to an open letter published last month and signed by more than 1,500 members of the United Kingdom’s Royal College of Pediatrics and Child Health (RCPCH).

In conjunction with **Distech**

The recent pandemic has made us aware of the importance of occupying healthy, properly ventilated buildings. It has also made us question habits and gestures previously considered harmless such as shaking hands to say hello or touching a door handle or a light switch.

The current risk will undoubtedly dissipate eventually, but a return to a measure of normality can be accelerated by providing effective and easy to implement responses to reassure occupants of non-residential buildings that their workplace or temporary residence is safe and healthy.

These measures can be classified into the two following solution types:

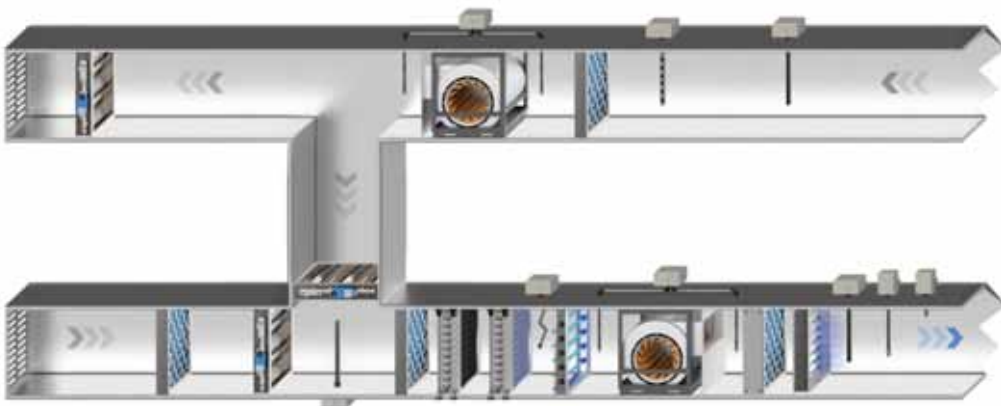
- Pro-active solutions that reduce the risk of contagion (deliver clean air, disinfection procedures, infection and detergent-resistant interfaces, counting / density of people to ensure social distancing is applicable, restricting access to buildings to persons not showing symptoms of contagious diseases).
- Reactive solutions that advance optimal risk management if, for various reasons, an infected person comes to visit a building (people tracking).

Finally, for these measures to have a real impact on a building's occupancy rate and for a return to normalcy (or a new normal) under the best conditions, it is important to share, in a way that respects privacy, the efforts being made to reassure occupants of a healthy environment.

## PROACTIVE MEASURES

### Enhanced Indoor Air Quality

The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) has published a [COVID-19 Building Readiness/Reopening Guideline](#).



CLICK HERE FOR FULL REPORT



**fräsch!**

**ACOUSTICAL FELT  
IN OUR NEW  
WORLD**

The material of choice  
for returning to school  
**SAFELY**

[frasch.co/backtoschool](https://frasch.co/backtoschool)



In conjunction with **Frasch**

# Acoustical Felt and Our New World

COVID-19 has indeed drastically changed the way we look at returning to school. What used to be an exciting time for both parents and students worthy of that “First Day of School” Facebook post, is now a time of elevated concerns and anxiety surrounding the health and safety of our children. A national survey conducted by Deloitte this summer showed that 66% of parents are anxious about sending their children back to school.

Understandably, protecting students and teachers from exposure to COVID-19 is of the utmost importance to school administrators, parents, and teachers during this uncertain time. And, as equally important is the emotional and psychological impact on students and teachers returning to a vastly different classroom set-up and overall learning experience than they were previously accustomed to.

## HOW CAN PET FELT MAKE RETURNING TO SCHOOL SAFER?

### IT IS EASY TO CLEAN AND DISINFECT.

PET felt can be easily and effectively disinfected in compliance to CDC guidelines for killing infectious diseases using the traditional cleaning and disinfecting products or bleach solutions.

We know that viruses are primarily spread through close contact with an infected person through respiratory droplets. Droplets can land on surfaces such as desks, tables, doorknobs, chairs, and supplies. Early research published by the CDC suggests that the coronavirus can remain airborne for up to three hours on soft surfaces, like paper or clothing, and up to 72 hours on hard surfaces like wood, glass, or metal.

PET felt is made of polyester, therefore, it is fabric-based making it a softer surface that the virus would not likely survive on for more than a few hours. Since PET felt partitions and dividers are not intended for frequent touching, daily upkeep and sanitizing is not tedious or time consuming.

We recommend spraying PET surfaces once a day with disinfectants like Lysol or Comet. Then just allow the surface to dry on its own. For extra caution, spray panels between classroom sessions for rotating classes and in classes with younger age groups that may have more frequent touching. For deeper cleaning, weekly disinfecting should be done after-hours using a bleach and water mixture.

In conjunction with **Frasch**

The CDC recommends the following bleach solution ratios:

- Diluted household bleach solutions (at least 1000ppm sodium hypochlorite) can be sprayed on.
- Or, prepare your own bleach solution by mixing 5 tablespoons (1/3rd cup) bleach per gallon of water.

### **ENFORCE DISTANCING, SPACE ZONING AND DEFINES TRAFFIC FLOW**

While we know that the best way to reduce the spread of COVID-19 is to limit close face-to-face contact between individuals; enforcing safe distancing can be quite the challenge in a school setting. However, the possibilities are endless for schools to utilize customizable space dividers and partitions to create zones and define flow naturally.

Over the past five years, PET felt has become the go-to material for acoustics due to its high sound absorption, flexibility and color variety that lends itself to attractive visual design. And now, more than ever, PET partitions and dividers versatility can be an essential component for defining space parameters and creating natural division while delivering optimal aesthetics at the same time.

Further, PET partitions, PANL felt screens, and PET Flora planters can serve as fun and colorful guides for foot flow while also absorbing the louder sounds that occur in high traffic areas like hallways and cafeterias.

To visualize these options in action, we can consider the following scenarios:

- PANL felt screens can have many laser-cut pieces and come in multiple colors. They can be attached as stationary, or moveable, and can include sliding tracks to allow opening and closing.
- Stationary standalone screens would be helpful in dividing students and navigating foot flow through a busy hallway between classes, or within a classroom.
- Moveable screens are attached by magnets to a metal ceiling grid to create areas for privacy. The pattern allows natural light to pass through without opening to protect from droplets while providing a personalized space. The screens can be removed and placed in other areas at any time.

### **MAKES SCHOOL FEEL LIKE SCHOOL, NOT AN INFECTIOUS DISEASE LAB**

As students return to schools, we want to avoid the additional stress and distraction that a sterile environment with daunting signage can cause. The goal for return to school planning during a pandemic is to get students back to their routine and education while also keeping them safe from exposure to COVID-19.

[CLICK HERE FOR FULL REPORT](#)

# PRODUCTS



## Turn and Learn from Ferco Seating

Due to its swivel technology, the Turn and Learn educational seating system creates an environment where collaborative learning can flourish through suggestive face-to-face and eye-to-eye contact for group work. An ideal hybrid solution to didactic and active styles of learning, Turn and Learn mirrors the workplace industry where tasks are oftentimes conducted collaboratively or alone.

[fercoseating.com](http://fercoseating.com)



## AVIO Collection from Kirei

The AVIO Collection of ceiling baffles is the next innovation in the growing Kirei EchoPanel lineup. It focuses on providing designers a more premium choice in elevated aesthetics and advanced sound absorption to the room's fifth wall, the ceiling, and is available in a suite of complementary and interchangeable acoustic products. Consisting of the A-Baffle, V-Baffle, I-Baffle and O-Baffle, AVIO is designed to ensure the ceiling can provide people with an enriched acoustic experience. Available in 27 colors.

[kireiusa.com](http://kireiusa.com)



## Wellness Kiosk Solutions from LG

The Wellness Kiosks are an ideal solution to provide information, health equipment and peace of mind to users in any type of physical environment. The upright, rectangular system includes a thermal scanner for temperature readings integrated with a 22- or 32-inch LG digital webOS Signage display for displaying health information. The system has a motion-activated hand sanitizer dispenser along with slots to hold boxes of gloves or masks. It even tracks how many people are using the hand sanitizer. As a compact all-in-one solution, no additional components are required.

[lgsolutions.com](http://lgsolutions.com)



## Spyker from Global Furniture Group

Spyker is a durable and lightweight stacking chair that can be used both indoors and out. The armchair is constructed from a durable, UV stable and stain-resistant polymer that is easily cleanable. Its fully perforated seat and back provides drainage for outdoor environments. Spyker is available in multiple finishes, including Alloy, Char, Milk, Saffron, Sky and Turtle dove.

[globalfurnituregroup.com](http://globalfurnituregroup.com)



### Varia Design Collection from 3form

3form introduces a design collection for its flagship line of resin, Varia, adding a curated palette of patterns and colors to make the challenge of material selection less time consuming for designers, but no less creative. The Varia Design Collection includes 43 total patterns and 14 colors. Whether a designer is looking for strong, saturated colors for education and hospitality, calming cool tones for healthcare, or a span of sophisticated neutrals for a corporate setting, these new options offer plenty of choice and were designed to pair well with each other.

[3-form.com](http://3-form.com)



### Engravings Collection from Móz Designs

Móz Designs is adding six new patterns to its Engravings Collection, the three-dimensional decorative metal surfacing solution that merges digital technology and artisan craftsmanship. The new patterns—Apex, Voyage, Cubella, Pearls (pictured), Nouveau and Maze—are durable, rigid and textured to add dimension to surfaces. They experiment with geometry and lines, making them distinctly different from the original collection that includes traditional patterns mimicking the look of tile. These additions round out the Engravings Collection, offering designers both modern and traditional options.

[mozdesigns.com](http://mozdesigns.com)



### Swatches Wall Tile Collection from Crossville

The new Swatches ceramic wall tile collection features extensive options for creating custom wall designs. Its 16 colors are presented in three groupings of foundational, neutral, and vibrant hues—Necessary Objects, Neutral Territory and Brilliant Deduction—and can be mixed to create patterns or installed monochromatically for uniform looks. The line's broad color offerings are matched by the expansive selection of sizes, including five calibrated field tile options and a trim package to finish every space professionally.

[crossvilleinc.com](http://crossvilleinc.com)



### Rise from Allsteel

Inspired by the natural ways people gather and share ideas, Rise is a newly expanded seating collection that aims to create comfortable seating solutions in a collection of non-traditional furniture. Designed by IDA Design and Rainlight Design Studio, the modular seating collection presents a solution to maximize the productivity, relevance and versatility of any environment. Rise features a range of different solutions, including a chaise, 120-degree corner seat, arm perch, soft wall, ottoman and a half-width ottoman to create customized configurations.

[allsteeloffice.com](http://allsteeloffice.com)



### Velcro Social Distancing Strap by Sandler

To help individuals adhere to social distancing regulations, the Sandler Social Distancing Strap can be placed on a seat to identify the chosen social distancing pattern. The strap can be simply attached to any seating model using a Velcro strap, which also makes removal and repositioning easy. It is made from brushed aluminium for added durability with signage that can be customised to fit with specified design guidelines.

[sandlerseating.com](http://sandlerseating.com)



### No-Touch Door Handle Cuff by Mockett

Mockett's new Door Handle Cuff offers a hygienic approach to opening traditional interior doors to prevent the spread of germs and bacteria. Simply rest your forearm into the cuff and press down on the door handle and push or pull to minimize possible contact through contamination. Easy-to-install forearm shield slips over the handle and is screwed into place. Fits most traditional door handles including square or round handles with a 3/4- to 1-inch diameter.

[mockett.com](http://mockett.com)



### Next Generation WashBar from Bradley

Designed to enhance all the fundamentals of hand washing, the next generation WashBar combines touch-free soap, water and dryer in a thin, L-shaped design that gives the feel the all-in-one fixture is floating above the sink for a sleek aesthetic. Its durable, chrome-plated cast alloy fixture features LED lighting to visually orient the user through the hand washing process with easy-to-identify icons on top of the bar. With only one connection point to the sink, the design provides more open space for easier cleaning.

[bradleycorp.com](http://bradleycorp.com)



### Rampart from Wolf-Gordon

Wolf-Gordon updates its RAMPART impact- and abrasion-resistant wall protection line with two material-ly-focused designs, Absolute and Belgrade. The patterns emphasize texture and touch of hand, an integral part of biophilic theories. Absolute is a design with the atmospheric, lightweight look of a linen, while the sand-like stipple in Belgrade mimics a smooth travertine stone. RAMPART wall protection was developed to provide an alternative to rigid wall panels for medium- to high-traffic interiors, such as education spaces, where abrasion, impact and scratching are a concern.

[wolfgordon.com](http://wolfgordon.com)



### Moody Blues from Fil Doux Textiles

Moody Blues is the first Otratex subcollection to be treated with Pro-Tech Plus, a powerful bleach cleanable, water-based ink and denim protectant. Fil Doux Textiles' Otratex is made with natural enzymes embedded in the material that creates enhanced degradability. Within 30 years, the material fully decomposes when placed in an anaerobic environment such as a landfill, returning to the natural elements that comprise it. Under the Otratex umbrella, the Moody Blues collection features 18 cool color options.

[fildoux.com](http://fildoux.com)